YOUTH WORK AND PSYCHOLOGICAL WELL-BEING

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ABSTRACT

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The present study assesses the psychological consequences of youth work in an older adolescent sample. Following from Mortimer and colleagues' groundbreaking research on employment for high school aged adolescents, we hypothesized that poor work quality would decrease self-efficacy and psychological well-being in an older, college aged sample. We examined the psychological implications of four aspects of work quality: noxious work conditions, work/school conflict, work complexity, and work autonomy. We also explored the role of co-worker social support in mitigating the negative impact of poor work quality on psychological outcomes.

We assessed the above relationships through a closed-ended survey completed by 602 undergraduate students at Michigan State University. Our measures of work quality, social support and psychological well-being are scales that have been used successfully in previous research on adolescents and adults. Furthermore, 10 follow-up interviews were performed to provide a richer context for the survey data.

Results indicate that three out of the four aspects of work quality (noxious conditions, work/school conflict, and low work complexity) are negatively related to psychological well-being for older adolescent workers. In addition to contemporaneous effects of work quality, there is some limited support for long term psychological implications of noxious work conditions. Furthermore, co-worker social support has a

positive impact on psychological well-being, and mitigates the relationship between low work complexity and psychological well-being. We also explore demographic differences in the impact of work quality on psychological well-being.

The present study makes an important contribution to two literatures. First, our results inform the general literatures on work and well-being. Second, our findings have important implications for the adolescent development literature. Findings are discussed in terms of theoretical advances as well as practical/policy implications.

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INTRODUCTION

In recent U.S. history, there has been a vast increase in the number of adolescents who work at part-time jobs during the school year. Since adolescence is an important developmental period, researchers, policy makers and parents are concerned about the short and long term psychological ramifications of youth work. The objective of the present study is to examine the psychological implications of youth work as well as explore the mechanisms by which work impacts upon adolescents' psychological well being.

To date, literature on the psychological consequences of youth work has been sparse. In addition, the research that does exist has been conceptually limited in its measurement of work. Most studies examine the psychological consequences of work status (employed or not employed) and/or the sheer number of hours worked. Such research treats youth work as a "black box", ignoring the substantial variation in the *quality* of work conditions. In order to explore the mechanisms by which youth work impacts upon psychological well being, we must first understand the content or the experience of work.

Mortimer and colleagues' groundbreaking research on youth work draws upon adult literatures on work conditions and psychological outcomes in order to inform the youth work literature. The present study will replicate and expand upon Mortimer's work by testing relationships between various measures of work quality and psychological well being that have been demonstrated in adult populations. We explore three main aspects of work quality that have been shown previously to have important psychological

implications for both adults and adolescents: work autonomy, work complexity, role conflict, and noxious work conditions. Work autonomy refers to the degree of decision making power one has at work while work complexity refers to the variety and complexity of work tasks. Role conflict refers to experiencing contradictory demands from work and other valued roles. Noxious work conditions refer to negative work environments such as excessive heat/cold, noise, and time pressures. Our measures of psychological outcomes follow from both adult literatures as well as research on adolescent development. Specifically, we examine self-efficacy (the individual's assessment of his/her competence) and psychological distress.

We hypothesize that work autonomy and complexity are positively related to psychological well being and work/school conflict and noxious work conditions are negatively related to psychological well being for adolescents. Furthermore, we explore the ability of co-worker social support to buffer the negative impact of poor work quality on adolescent psychological well being. We also examine differences in the impact of work quality based on gender, class and race. Lastly, we assess the long-term psychological outcomes of work quality by examining the impact of earlier work experiences on current psychological well being.

Previous research on youth work (most notably, Mortimer and colleagues) has focused almost exclusively on early adolescence, neglecting the implications of work experience for adolescents who are older than high school age. The present study expands upon Mortimer's research by bridging the gap between studies focusing on early adolescence and adulthood. Specifically, we will explore the life cycle stage of *late adolescence*. As we shall see, the stage of "late

adolescence" has often elluded definition in the literature. For purposes of the present study, we define college students as individuals in the stage of late adolescence, since such individuals are in a transitory stage between early adolescence and adulthood.

The present study assesses the above relationships through the use of a survey methodology. We distributed closed-ended surveys to 602 undergraduate students at Michigan State University. Our measures of work quality, social support and psychological well being are scales that have been used successfully in previous research on adolescents and adults. In addition, 10 follow-up interviews were performed to provide a richer context for the survey data.

The present study will make a significant contribution to academic literatures as well as suggest important practical/policy implications. First we will add to the general literature on work and psychological well being by clarifying this relationship within a particular age group (adolescence). Furthermore, this study will contribute to the adolescent development literature by exploring a largely neglected socialization context (work) for adolescent psychological well being.

Second, since having a part-time job during adolescence has become almost normative in the U.S., it is important that we fully understand its implications for adolescent development and well being. The present study will clarify which aspects of work are most harmful to psychological well being and suggest factors (e.g. social support) that may mitigate such effects on adolescents' psychological outcomes. It is only through understanding the mechanisms through which work impacts upon psychological well being that we can hope to improve the lives of youth workers.

CHAPTER 1:

LITERATURE REVIEW

A BRIEF HISTORY OF YOUTH WORK

Before we examine the implications of adolescent employment in the present day, it is important that we understand the phenomena of youth work within a broader historical framework. Throughout U.S. history, the decision of young persons to seek employment has not simply reflected individual choice. Rather, the nature and extent of youth work has changed over time in conjunction with broader economic and familial conditions. In fact, as we shall see, the ebb and flow of "youth work" with the historical tide has also been significantly associated with the creation of (and changing status of) the life stage that we now know as "adolescence."

In colonial America, child labor was normative for all but those from wealthy families (who were fortunate enough to attend school). During this time period, a stage of life distinct from childhood and adulthood did not exist. Rather, children were seen as "miniature adults" who were primarily prized only for their economic value (Demos 1977). By the time a child reached the teenage years, s/he was capable of covering his/her own expenses through significant contributions to the work of the household, the family farm, or the family enterprise (Vulcan 1968).

The creation of "adolescence" as a distinct stage of life is strongly linked to the rise of the manufacturing age in the nineteenth century. With the advent of machines that displaced large numbers of workers, keen competition arose between adult workers and child laborers (who were willing to work for low wages). In response, adult workingmen's organizations sponsored child labor and

compulsory education laws (Vulcan 1968). As a result, child labor declined substantially during the first half of the twentieth century (Wrigley 1986). Between the years of 1900 and 1950, labor rates for 14-19 year old males declined from 70% to 40%, while the graduation rate from high school increased from 10% to 50% (Vulcan 1968). Thus, the 20th century saw the birth of "adolescence" as a distinct life stage. For the first time in U.S. history, large numbers of young persons were attending school rather than contributing substantially to the economy. For the first time, many young persons (particularly from the middle classes) were protected from adult financial responsibilities and thus were able to develop a separate "youth culture" (Demos and Demos 1973).

Since WWII, the United States has experienced yet another massive economic change: the transition from a manufacturing to a service economy. Since the 1940s, there has been a rapid growth of the service and retail sectors of the economy at the expense of production sectors. For instance, between 1940 and 1976, the U.S. created 9.3 million new jobs in the service sector and 6.6 million jobs in the retail sector (Ginzberg 1977). Furthermore, during the 1980s, for every thousand people of working-age, the U.S. created 27 clerical, sales and service jobs and lost 16 production, transportation, and laborer jobs (Wilson 1997 p. 27). These "new jobs" are not comparable, however, to the previous manufacturing jobs in terms of money, benefits and flexibility. Instead, most service and retail jobs are characterized by low wages, irregular shifts, low job security, low benefits, and minimal potential for promotion (Ginzberg 1977; Keithly and Deseran 1995).

Research indicates that countries with the earliest and greatest development of service economies experience a parallel rise in youth

work. For instance, the United States and Canada, with their large service economies, also have the largest proportion of student workers among industrialized nations (Reubens, Harrison, and Rupp 1981). But while young people in the colonial period worked instead of going to school, recent decades have seen the rise of the "student worker." For instance, in the United States, between 1947 and 1980, there was a 65% increase in part-time work for school enrolled 16-17 year-old boys and a 240% increase for girls (Greenberger 1988). Recent estimates indicate that 61% of tenth graders, 90% of eleventh and twelfth graders, and 51% of college student's work during the school year (Manning 1990; National Association of Student Employment Administrators). In addition, over half of employed high school seniors and a quarter of all employed sophomores work more than 20 hours per/week (Steinberg and Dornbusch 1991) while the average employed college student works 16 hours per week (National Association for Student Employment Administrators).

But why would the rise of a service economy cause an increase in youth work? First, the jobs being created in the service sector are particularly well suited to adolescents. Job attributes such as low wages, low job security and irregular work hours are likely to be intolerable to an adult worker who needs to support and spend time with his/her family. These same "bad" job characteristics, however, are typically acceptable for adolescent employees who require off-hour employment (evenings and weekends), are not particularly concerned with long term job security, and do not require high wages since they are typically supported financially by their parents (Greenberger and Steinberg 1986). The work provided by adolescents is, in turn, attractive to employers since youth workers provide a source of cheap and temporary labor

that is necessary in a service economy. Thus, the transition to a service economy in the U.S. has produced a new demand for youth workers.

In addition to the impact of the service economy on adolescent employment, recent changes in family structure have also impacted upon youth work. For reasons that we shall outline, adolescents are more likely today to return after school to an empty home. For such youth, getting a paid job may be a more attractive alternative to spending large amounts of time by him/herself (Greenberger and Steinberg 1986). There are two main reasons for this change in the ecology of the household.

First, in recent decades, there has been an increase in the likelihood that teenagers will have employed mothers. The transition to a service economy not only increased youth work, but also saw unprecedented numbers of women entering the job market. In the beginning of the 1960s, only 18% of married women with children under age six worked outside the home, whereas by 1991, 60% of these women were in the labor force (U.S. Census Bureau 1992). Thus, teenagers today, (born in the 1980s), are the most likely group to have a mom in the labor force (Greenberger and Steinberg 1986). As a result, adolescents returning home after school are likely to find an empty house since mom is working. Instead of spending large amounts of time at home alone, adolescents often follow mom's example by seeking employment. This serves the dual purpose of acquiring extra spending money as well as occupying the adolescents' after school hours with a viable activity.

Second, in recent decades, there has been a decrease in the number of family members in any one household. There has been a vast increase in the number of single parent households and a decrease in the number of

children per family. For instance, one study estimates that 59% of children born in the early 1980s will live with only one parent for at least a year (Glick 1989) and the majority of children in mother only families will continue in this situation for the remainder of their childhood (Bumpass and Sweet 1989). Furthermore, the average number of children per family is just a fraction more than two (Greenberger and Steinberg 1986). While adolescents in the past had the potential to interact with many different family members, today's youth are simply statistically less likely to have their schedule mesh with other family members. While an adolescent from a larger family is no more likely to spend time with any one family member, s/he is more likely to interact with various family members at different times. Thus, adolescents from smaller families (who are likely to spend a significant amount of time home alone), may view working as an attractive alternative activity (Greenberger and Steinberg 1986).

In sum, economic and family changes have had an important impact on youth work. Although a full analysis of such broad changes is beyond the scope of this brief historical view of youth work, we have seen that factors such as the rise of the service economy as well as smaller household structures have increased the number of adolescents involved in part-time employment. More importantly, the changing nature of youth work has influenced our very definition of "adolescence" as a life stage between childhood and adulthood.

EARLY VS. LATE ADOLESCENCE

Thus far, our definition of adolescence has contained an element of ambiguity in terms of the boundaries of this life stage. Specifically,

when does childhood end and adolescence begin? And when does an adolescent become a full-fledged adult? Piaget, a prominent early developmental psychologist, conceptualized adolescence as encompassing the teen years (age 12 to 18). Although Piaget examined emotional and behavioral components of adolescent development, he primarily focused on intellectual development. Based on this focus, he broke adolescence into two periods of mental development: early formal operations (12-15) and late formal operations (15-18) (Cowan 1978). Following Piaget's lead, contemporary scholars generally define early adolescence as occurring between the ages of 12 and 15 (Brooks-Gunn and Peterson 1984; Brooks-Gunn, Rock and Warren 1989).

The question of concern for our present purposes, however, is the definition of "late adolescence." If Piaget defined this period as occurring between the ages of 15 and 18, the question arises as to whether an individual has made the transition to adulthood by age eighteen. How have contemporary scholars conceptualized the status transition from adolescence to adulthood? When does adolescence end and adulthood begin? This question is not easily answered.

Scholars have proposed many different markers of adulthood such as marriage, moving out of parents' home, and full-time job status (Arnett and Taber 1994; White 1994). Yet these transition markers do not necessarily occur simultaneously. For instance, an individual might have a full-time job but still live with his/her parents, or a person might be married while still attending school. How do we classify such individuals who appear to be a hybrid of adult and adolescent roles?

Further complicating the picture is that the age at which these transitions occur has increased in recent decades. First, the age of first

marriage has increased substantially in recent decades. In 1960, the median age of first marriage was 22.8 for men 20.3 for women whereas in 1993 the median age was 26.5 for men and 24.5 for women (U.S. Bureau of the Census 1993).

Second, the status of full-time worker has been delayed in recent decades due to an increase in higher education. In 1920, only 30% of 14-17 year olds were enrolled in high school and only 8% of 18-21 year olds were enrolled in college whereas in 1985, the rates for enrollment in high school and college were 95% and 57% respectively (Elder 1987; Horowitz 1987; U.S. Department of Education 1988). In the case of college students, the majority are not financially independent. Research indicates that 48% of undergraduates are financially dependent on their parents and 43% received some form of financial aid (National Center for Education Statistics 1993). Thus, the status of full-time worker (and the financial independence that accompanies it) has certainly been delayed for many young people in recent decades.

Third, the issue of leaving the parents' home is murky. Even after young people leave, they typically have not fully established a separate residence since many return for brief time frames. Studies indicate that about half of children return home for at least a brief period after their initial leaving (Goldscheider and DaVanzo 1986; Kerckhoff and Macrae 1992). In addition, although the majority (72%) of college students do not live with their parents (National Center for Education Statistics 1993), many are still under the authority and supervision of college dormitory staff. Scholars have adopted the term "semi-autonomy" to describe this gray area where young people are living in semi-structured environments and thus are neither dependent nor independent (Goldscheider and DaVanzo 1989; Young 1987).

Thus, instead of a clear-cut transition from adolescence to adulthood, we find a multitude of transitions, mixing and matching with one another in terms of time frame; occurring at later and later stages in the life cycle. How then, are we to define "late adolescence" when there is no agreed upon definition; when there is no one transition that clearly marks adulthood?

For the purposes of the present study, I will choose a definition of "late adolescence" that is relevant to the issues concerning youth work that I wish to address. As discussed, the combination of school and work roles has been historically relevant in the definition of adolescence and thus the "student worker" has emerged as the dominant adolescent form. As we have seen, college students continue to balance student and work roles long after early adolescence. Yet the research to date has generally only examined high schoolers, while neglecting this late stage of adolescence. Since the present study is interested in the psychological impact of youth work over time, we have chosen a population (college students) that are in a prolonged state of adolescence. It is a group that is more mature than young adolescents, yet has not fully reached adulthood since, as discussed, most are "semi-autonomous", financially dependent, and still combing work and school roles. This life stage that exists between early adolescence and adulthood has been neglected in previous research on the psychological impact of work. In the following pages, we will review the literature on work and psychological well being for early adolescents and adults. Such previous research will serve as a backdrop for the present study on the psychological consequences of youth work during late adolescence.

PSYCHOLOGICAL OUTCOMES

Before immersing ourselves in the literature concerning psychological outcomes of youth work, let us first explore the general meaning of such psychological constructs. If we were to divide the psychological literature into two broad categories, we would find two main psychological variables: self-concept and psychological distress. Let us explore each in turn.

Self Concept

The self-concept has received much attention as an important psychological variable in both psychological and sociological research. The self-concept is defined as an individual's conception of him/herself that is shaped through social interactions with others (Cooley 1902; Gecas 1982; Mead 1934; Rosenberg 1981). Researchers differentiate among various aspects of the self-concept such as identity and self-evaluative components. Identities include meanings associated with the self and the content and organization of self-conceptions. Self-evaluation or self-esteem, on the other hand, refers to the individual's overall self-evaluation of him/herself. Recently, researchers have differentiated among various aspects of self-esteem such as self worth, (an individual's sense of moral worth) and self-efficacy (an individual's assessment of his/her personal competency and effectiveness) (Gecas 1982).

The present study concentrates on the self-efficacy component of the self-concept. As we will discuss later in more detail, this aspect of self-concept has been demonstrated to be an important outcome of work experience (our independent variable of interest). Self-efficacy refers to an individual's assessment of

his/her effectiveness, competence and causal agency (Gecas 1989). In other words, it is the individual's sense that he/she has the capacity to have an impact on the world. Despite this general definition, self-efficacy has appeared within psychological and sociological disciplines subsumed under many different labels.

Researchers generally divide efficacy into two categories: internal and external. An internal sense of efficacy refers to the individual's belief that outcomes are contingent upon their own actions. There are many terms in the literature that refer to the sense of internal efficacy such as self-efficacy (Bandura 1982; Gecas 1989), mastery (Pearlin 1983), internal locus of control (Rotter 1966), competence (Mortimer and Lorence 1979), self-confidence (Rosenberg 1979), self-directedness (Kohn and Schooler 1983), instrumentalism (Wheaton 1980) and self-reliance (Greenberger and Steinberg 1986). In contrast, an external sense of efficacy refers to the tendency to attribute outcomes to forces outside of oneself; such that outcomes occur independently of the individual's actions. There are many concepts referring to the external sense of efficacy such as learned helplessness (Seligman 1975), external locus of control (Rotter 1966), alienation (Marx [1844] 1964), fatalism (Wheaton 1980) and powerlessness (Seeman 1967).

Although the above terms have much in common, each has a slightly different flavor based on the specific discipline's perspective and research interests. For instance, behavioral psychologists tend to focus on the behavior that results from exposure to uncontrollable negative stimuli. For instance, Bandura (1982) focuses on the compromised *performances* that result from low confidence in one's abilities. Cognitive psychologists, on the other hand, focus more on the belief or perception that one has causal agency, rather than on performance or behavior

per se. Sociologists, on the other hand, tend to focus on the shaping of self-efficacy based upon an individual's location in the social structure.

The present study takes the latter sociological focus since we are exploring the psychological impact of the youth work role (which is tied to larger structural conditions). As such, the present study will use the term self-efficacy, which is widely used in literatures taking a sociological focus. Furthermore, self-efficacy has been used extensively by those exploring the psychological impact of work for adolescents (Mortimer et al. 1996). In my *review* of youth work, however, the reader will see various terms (as noted above) used interchangeably. Certainly there is some difficulty in comparing results across studies since such terms do not have precisely the same meaning. However, as Mirowsky and Ross (1989) note, such terms are "*roughly* interchangeable."

Adolescence and Self Efficacy

Although self-efficacy is an important psychological construct at all life stages, it is particularly important for adolescent development. The adolescent period in the life cycle represents the transition from childhood to adulthood roles. As such, it is a critical period for forming personality and acquiring new social statuses (Erikson 1959; Greenberger 1988). Scholars contend that self efficacy is central in the successful transition to adulthood. In order to become an independent and psychological healthy adult, the adolescent must attain a sense of causal agency in his/her world (Bandura 1982; Dornbusch 1989; Finch et al. 1991; Hauser and Levine 1994; Josselson 1980; Mortimer et al. 1996). As the adolescent begins to make the

transition to work, spousal or parental responsibilities, s/he must feel efficacious in order to take on these adult roles successfully. The adolescent can no longer view him/herself as a dependent child, but rather begin see him/herself as a separate, effective, and competent adult (Josselson 1980).

But how does the adolescent develop a sense of self-efficacy? Much of the research looking at the predictors of psychological development for adolescents focuses on the socialization agents of family, school, media and peer groups. Largely ignored has been the potentially important socialization context of work experience on adolescent psychological development. This omission is surprising since adolescents spend a significant portion of their time working in part-time jobs outside of the home or school. Furthermore, the work role is a significant marker of the transition to adulthood. For the first time, the adolescent is given the opportunity to master work tasks and thus to establish efficacy in a worker role[1]. Thus, youth work experiences are implicated in the development of self-efficacy (Mortimer et al. 1996).

Note the present study is interested in exploring the general self-efficacy that *results* from work experiences, rather than concentrating on specific work-related self-efficacy. This brings to mind a burgeoning literature on global vs. specific self-esteem. For instance, Bandura (1982) contends that an individual's confidence that s/he can perform well in a specified task is more likely to lead to performance outcomes than general feelings of self-esteem. Recently, a number of studies empirically demonstrate

[1] We will discuss alternative arguments in a later section (i.e. the argument that since youth work is temporary, that it has little impact on self efficacy).

that researchers have inappropriately used general self-esteem measures, when specific self-esteem measures would be better predictors of behaviors (Rosenberg et al. 1995).

That being said, it is important to keep in mind the present study's focus on adolescents' development of general self-efficacy. Since the majority of youth work is dissimilar to later adult jobs, we are not particularly interested in adolescents' sense of competency in their work tasks per se. More important for adolescent development is exploring the broader implications of work quality in terms of its impact on adolescents' overall sense of competency. As we will discuss in more detail later, Kohn's generalization contends that individuals learn or generalize the "lessons of the job to outside-the-job realities (Kohn 1981: p.290). Thus, workers who experience high levels of occupational self-direction are likely to have a more self-directed orientation in other aspects of life. Thus, given the present study's focus, we are not as interested in discovering specific work-related competencies as we are uncovering the impact of youth work on global assessments of competency in adolescent development.

Furthermore, the present study uses a general measure of self-efficacy because of our overall focus on psychological well-being. Studies indicate that while specific self-esteem is more relevant for behaviors, global self-esteem is most relevant to psychological well-being (Rosenberg et al. 1995). Specifically, research indicates that an individual's sense of causal agency has important implications for his/her psychological well being. Studies indicate that external attributions are positively associated with distress (Mirowsky and Ross 1984; Wheaton 1980), whereas internal attributions are associated with decreased depression and distress (Benassi et al 1988; Kohn and Schooler 1982; Mirowsky and Ross 1990; Ross 1990). In

addition to studies on adults, there is preliminary support for the relationship between self-efficacy and distress for adolescents (McFarlane, Bellissimo and Norman 1995). Thus, it is those individuals who feel they do not have the capacity to act that are also more likely to suffer from psychological distress. Since self efficacy has such important psychological implications, the present study will also examine psychological distress as an important psychological outcome variable.

Psychological Distress / Psychological Well Being

Current research and conceptualization of psychological distress can be divided into two main categories: psychiatric epidemiology and social stress research. Psychiatric epidemiologists generally use the term "mental health" to refer to specific and discrete psychiatric disorders such as depression, bipolar disorder, alcohol/drug dependence, paranoia, schizophrenia and the like. Large scale national surveys, such as the Epidemiological Catchment Area program (ECA) (Regier et al. 1984) and the National Comorbidity Survey (NCS) (Kessler et al. 1994) measure the prevalence of such disorders in the general population. Such surveys use the Diagnostic Interview Schedule (DIS) (APA 1980, 1987) and the Composite International Diagnostic Interview (CIDI) (WHO 1990) respectively to assess the presence, duration and severity of psychological symptoms. According to predefined criteria, the DIS instrument (and its updated and revised version, the CIDI) group such symptoms into patterns indicating the presence or absence of discrete psychiatric disorders as designated in various editions of the Diagnostic and Statistical Manual (American Psychiatric Association 1980, 1987).

Social stress researchers, in contrast, do not concentrate on clinical disorders, but rather on the general psychological health of normal populations. Such scholars generally use the term "psychological distress" (instead of mental health) to refer to feelings of depression (feeling sad or hopeless) and anxiety (being tense or worried) (Mirowsky and Ross). Alternatively, psychological well being simply refers to the opposite side of the coin (psychological health). Importantly, social stress researchers critique psychiatric epidemiology in terms of its categorization of psychological problems as distinct entities. Specifically, they argue that the Diagnostic Statistical Manual assumes that there are important cut-off points (based on the number, frequency and duration of symptoms) that determine the absence or presence of psychiatric disorder. Under this schema, an individual either has a psychiatric disorder or does not (based on diagnostic criteria). Social stress researchers argue that in life, things are rarely so black and white. Rather, psychological problems occur on a continuum, in varying degrees of severity and duration (Mirowsky and Ross 1989).

Consistent with their conceptualization of psychological problems as occurring along a continuum, social stress researchers use indexes to measure psychological well being. The widely used Center for Epidemiological Studies' Depression Scale (CES-D) contains items pertaining to feelings of fear, depression, and loneliness. Scores on the CES-D are not used to diagnose specific psychiatric cases, but rather are summed to represent each respondents' distress level. Scores range from high psychological distress to complete psychological well being. Thus, whereas diagnostic categories include or exclude cases based on certain criteria, indexes rank respondents based on their level of psychological distress (or psychological well being).

Stress researchers do not always agree, however, as to the origins of "psychological distress." Some scholars contend that distress is an *outcome* of role stressors that are rooted in social statuses (Pearlin 1981). Research from this perspective has focused on the psychological impact of role stressors related to socioeconomic status (Kessler et al. 1994; Robins et al. 1981), work conditions (Kohn et al. 1990), race (Robins et al. 1984; Neff 1984), gender (Kessler et al. 1994; Robins and Regier 1991), marriage (Gove 1972, 1978), parenthood (Ross and Mirowsky 1988), and disability (Mirowsky 1994).

Other stress researchers, however, do not view psychological distress as an outcome of stress, but rather as a *perception* of stress. Such scholars argue that stressors are not objective entities, but rather occur within a subjective context that determines their meaning. Lazarus and colleagues (Lazarus 1991; Lazarus and Folkman 1984, 1987) argue that whether or not a stressor will be experienced as psychological distress depends upon the individual's assessment of the situation. These subjective evaluations will be determined by individual differences in such things as personal dispositions, early life experiences, recent events, and ongoing social situations (Dohrenwend et al. 1990; Farmer and Ferraro 1997; Wheaton 1994). According to this perspective, stress will only be defined as distress when the individual appraises the stressor as exceeding his/her personal psychosocial resources. Stressors are not uniformly experienced as distress and thus subjective individual differences must be taken into account when evaluating the psychological impact of stress (Lazarus 1991).

Although I acknowledge the importance of individual variation in the meaning of stressors, the present study will use the previous

formulation of stress as *causing* psychological distress. My interest is in examining the social patterning of psychological well being. Specifically with regards to work conditions, Lazarus (1991) contends that it is not especially useful to identify stressors that have a negative impact on most workers because stress is ultimately an individual phenomena (Brief and George 1991). I disagree. Although stress is experienced at the individual level, it is not an individual phenomena. Rather, as discussed previously, stressors are rooted in one's social position and social circumstance. In the present study, it is useful to discover specific facets of youth work that have a negative psychological impact on the majority of adolescents. Since research on the psychological implications of youth work is still in its infancy stages, it is important to first explore large scale patterns in psychological distress rather than individual variations in response. Let us not forget that a concentration on the social patterning of outcomes is a central task of sociology.

Adolescence and Psychological Distress

Psychological distress does not appear spontaneously in adulthood, but rather is rooted in the individual's psychological well being during earlier life cycle periods. Specifically, research demonstrates that many adult psychological disorders first appear during adolescence (Fleming and Offord 1990; Peterson et al. 1993). Furthermore, there is recent evidence that psychological distress in adolescence constitutes an important risk factor for adult psychological distress and disorders (Fleming and Offord 1990; Peterson et al. 1993). Since psychological well being during adolescence has potentially serious long term implications for psychological outcomes in

adulthood, it is an important area of inquiry for researchers and policy makers interested in fully understanding the development and course of psychological disorders.

Estimating the rates of psychological distress in adolescence is marred by the same split in the adult literature between psychiatric epidemiology and social stress perspectives. Psychiatric epidemiologists tend to use clinical, discrete measures based on DSM-III criteria (APA 1980). Such researchers generally find relatively low rates of psychological distress with estimates ranging between 0.5% and 2.5% of adolescents experiencing a major depressive disorder (Anderson et al. 1987; Kashani et al. 1987; McGee et al. 1990; Whitaker et al. 1990).

In contrast, social stress researchers use indexes to assess adolescents' psychological distress. Similar to adult populations, the CES-D is a commonly used index to assess adolescent psychological distress. This scale has been demonstrated to be reliable and valid for high school and college aged youth coming from diverse ethnic/racial backgrounds (Roberts et al. 1990; 1991; Schoenbach et al. 1982; Wells et al. 1987). Studies using the CES-D and other index measures find that psychological distress is quite common among adolescents (Emnslie et al. 1990; Fleming and Offord 1990; Gore, Aseltine and Colton 1992; Lewinsohn et al. 1993; Manson et al. 1990; Siegel et al. 1996). For instance, one study found that over 40% of adolescents showed "substantial feelings of misery" (Rutter et al. 1981), while another study reported that 48% of an adolescent sample displayed "appreciable misery or depression" (Kaplan, Hong, and Weinhold 1984). Furthermore, Kutcher and Marton's (1989) summary of the literature found that between one-fifth and one-half of the adolescent population displays some symptoms of depression at any given point in

time (p. 897). Thus, in contrast to clinical depression measures, studies employing general index measures find that psychological distress is common among adolescents.

In sum, the present study will focus on psychological distress since it is crucial for adolescent development and ultimately, adult psychological well being. Since distress during adolescence is so common, it is important to look at all socialization contexts, including youth work that may be important in the development of psychological well being. Since I am interested in the general psychological functioning of the normal adolescent population, I will use a continuous index measure of psychological distress rather than a clinical measure. Furthermore, since I am interested in social patterns of psychological well being, I conceptualize of psychological distress as being an outcome variable that is reactive to (rather than a definition of) objective youth work experiences.

PSYCHOLOGICAL OUTCOMES OF YOUTH WORK

Although much research has demonstrated that work conditions have important implications for adult psychological well being, the literature is sparse regarding the outcomes of work conditions on adolescent psychological well being. The purpose of the present study is to fill this gap by exploring work as a potentially important socialization context for adolescents' psychological outcomes. We will begin by critically reviewing the literature on youth work and psychological outcomes (self efficacy and psychological distress). Since this literature is dominated by a focus on those in early adolescence, I will also speculate on differences for those in late adolescence. Next, we shall explore how the adult literature on work and psychological well being can greatly inform the youth work literature

and provide a model for exciting new research on youth work and psychological outcomes.

Work Status

There are many methods of measuring youth work experience. Some researchers use 'work status' (working vs. not working) to determine the effects of adolescent work on psychological outcomes. Are there differences between adolescents who are employed vs. those who do not work outside the home? Much of the conventional wisdom assumes that employment is beneficial for youth in terms of increasing self-efficacy. For instance, William Stephens, a sociologist and author of "Our Children Should be Working" (1979) asserts that work teaches young people to be self-reliant. Furthermore, research indicates that both mothers and fathers strongly approve of youth work. Parents describe their own youth work experience as well as their child's employment as being quite positive, with the benefits (such as self efficacy and self reliance) far outweighing the costs (Aronson, Mortimer, Zierman and Hacker 1996; Phillips and Sandstrom 1990). Thus, the general public perception in the United States is that youth work is quite beneficial for adolescent psychological development.

This rhetoric is at least partially based upon one of the earliest and most influential empirical studies on the psychological implications of youth work: Elder's (1974) study on children of the Great Depression. This study did, in fact, provide support for the conventional wisdom that work leads to increased self efficacy. Elder examined the consequences of children contributing to the family's finances during the economic hardship of the Great Depression. Elder found that

children who made a financial contribution to the family attained a higher sense of efficacy and a proactive achievement orientation that carried on into adulthood. (Elder 1974).

Although influential, Elder's study has some important limitations. First, Elder's sample was relatively small (N=167) and was obtained through non-probability methods. As a result, it is difficult to generalize results to the general adolescent population. A second limitation is the inability to assess selection vs. causation effects of work and self-efficacy. Many researchers interpret Elder's findings to indicate that adolescents who were able to actively improve their families' economic situation felt a high sense of control over the world as a result. Another possibility, however, is that adolescents with higher self-efficacy originally felt more confident in their ability to help their families and consequently were more likely to choose to work than adolescents with low self-efficacy. Since Elder did not measure previous levels of self-efficacy, it is impossible to test for selection effects (self-efficacy causing work) vs. causation effects (work causing self-efficacy).

Despite the above limitations, Elder's study was influential in providing preliminary evidence for the positive impact of youth work on self efficacy. Contemporary researchers must keep in mind, however, that the motivation for youth work is different today than at the time of Elder's research. During the Great Depression, a viable strategy for family survival was to rely on adolescent members of the household for supplemental income. In fact, at this time period, child labor laws were temporarily suspended to allow adolescents to contribute to the family income (Angell 1936; Elder 1974).

Today, however, the majority of adolescents do not work to support their families. Instead, most adolescents spend their money on discretionary items such as cars, stereos, "extra" clothing, and concert tickets. (Greenberger 1988; Lewin-Epstein 1981; Safyer, Heahy and Colan 1995; Mortimer et al. 1990). Even in the case of college students, although many do spend their money on college expenses, the majority (48%) are still financially dependent on their parents and many receive financial aid (43%) (National Center for Education Statistics 1993).

Research findings from contemporary studies are mixed. Some support Elder's findings that a positive relationship exists between adolescent employment and self-reliance (Greenberger 1988, Greenberger and Steinberg 1986; Ortman 1988). However, many of these studies rely on self-report data, in which adolescents claim that working caused them to gain greater self-reliance. It is not clear whether these self-reports actually reflected a causal relationship between work status and self-reliance, or whether these adolescents simply internalized the conventional wisdom that working leads to greater levels of self-efficacy and self-reliance. Other research, using longitudinal data, finds the opposite effect, such that adolescent employment actually causes a decrease in mastery over time (we will discuss this finding in more detail later) (Finch, Mortimer, Shanahan and Ryu 1991). Still other research finds no difference in self efficacy between working vs. non-working adolescents (Mortimer and Finch 1996). Thus, the research evidence is still inconclusive regarding the relationship between work status and self-efficacy.

Demographic Differences in Work Status

Work status is heavily influenced by class and race. First, families today that are most in need of financial resources are the *least* likely to have an adolescent family member in the labor force. Research indicates that lower household income and parental unemployment actually decreases the odds of adolescent participation in the labor force (Keithly and Deseran 1995). Although the rates of *seeking* employment are similar by class and race (Greenberger and Steinberg 1986), research indicates that white, middle-class suburban adolescents are more likely to actually work at a part-time job than black, Hispanic or poor urban youth. Thus, although adolescents from all backgrounds seek employment, it is the youth from families with the most resources that tend to attain part-time jobs.

There are several explanations for this inequality in work experience by class and race. First, proponents of the "spatial mismatch" hypothesis point out that the majority of low-skilled job growth during the last two decades has been in the suburbs (Kasarda 1985). Since poor and minority youth tend to live in the inner city, it is difficult for them to travel to jobs located some distance from their homes (Fordham 1996; Giordano 1993; MacLeod 1995; Wilson 1987). Although some empirical work finds no effect of residence on youth work (Ellwood 1986; Leonard 1986), a number of studies provide evidence for the spatial mismatch hypothesis. For instance, Ihlanfeldt and Sjoquist (1991) found that as the length of the commute increases, the probability of the adolescent having a job declines. Furthermore, Rosenbaum and Popkin (1991) found that low income blacks who moved into subsidized housing in the suburbs were more likely to subsequently have a job than those moved to housing in the city, even when controlling for background variables. Thus, one reason

that low income and minority adolescents are less likely to have part-time jobs is because of the mismatch between their residence and "job rich" suburban areas.

Another mechanism explaining the lower rates of employment for low SES and minority youth is a lack of personal contacts to jobs. Research indicates that white middle class youth are more likely to find employment through family or friend networks than lower SES or minority youth (Borman 1991; Holzer 1987; Wilson 1987). For instance, Osterman (1980) found that white youth attain 57% of their jobs through personal contacts whereas blacks only found 33% of their jobs in this manner. Furthermore, many employers use employee referrals extensively when hiring new workers; a contact base to which many lower income black youth do not have access (Korenman and Turner 1996; Moss and Tilly 1992; Turner, Fix and Struyk 1991;Waldinger 1993).

The majority of the research on class/race differences in youth employment status, however, has focused exclusively on those in early adolescence. The situation is likely to be different for college students. First, regardless of class or racial status, most college students (72%) live on/near a college campus rather than at home with their parents (National Center for Education Statistics 1993). Although such youth still contend with racial discrimination in hiring practices, the effects of "spatial mismatch" are minimized or eliminated. In contrast to studies of early adolescence, studies on college students indicate that minority students are actually more likely to work more than white students. For instance, one study conducted at Michigan State University found that black and Hispanic students were more likely to be employed than whites students (Michigan State University 1993). Thus, living on/near a college

campus (rather than in a job deprived inner city environment) is likely to level the playing field in terms of attaining employment for disadvantaged youth.[2]

Although there is much research on class/race differences in employment status, there is a paucity of research examining differences in the psychological impact of youth employment status for minority and lower class adolescents. In order to fully understand the impact of youth work, it is vital that future research compares the psychological implications of youth employment status on members of various class/race groupings. The present study will do a preliminary investigation of this issue by comparing the psychological impact of employment status on adolescents of different racial and SES backgrounds.

The literature on youth work has a slightly better record, however, in examining gender differences in employment status. Although recent studies find few differences in youth employment status by gender (Mortimer et al. 1990; U.S. Department of Labor 1987), there is some evidence that the psychological impact of employment status differs for adolescent boys and girls. Studies indicate that employment status increases self efficacy for adolescent girls, but has no impact on adolescent boys (Greenberger 1984, 1988; Mortimer, Finch, Shanahan and Ryu 1992; Steinberg, Fegley, and Dornbusch 1991). One plausible explanation for this difference is that conventional expectations for adolescent girls have not (until recently) included attaining a part-time job. As a result, entering the labor force at an early age may represent an act of independence and self assertion, leading to feelings of self efficacy among adolescent girls (Greenberger 1988; Steinberg et al. 1991). The present study will do an initial test of such gender

[2] The playing field is not leveled, however, in terms of job quality. We will return to this issue later.

differences, exploring whether employment continues to lead to self-efficacy for girls in late adolescence.

Work Hours

Recently, researchers have proposed that the critical variable is not whether or not an adolescent works, but the number of hours worked (Bachman, Bare and Frankie 1986; Mortimer and Finch 1986; Steinberg and Dornbusch 1991). The importance of work hours has come to the attention of researchers and policy makers as a result of a significant increase in the average number of hours worked by adolescents over the last few decades in the United States.

Currently, over half of all employed high school seniors and a quarter of all employed sophomores work more than 20 hours/week (Steinberg and Dornbusch 1991), a small but sizable minority of high school seniors (10%) work 35 hours/week or more during the school year (Greenberger 1988), and the average college student works 16 hours per week (National Association for Student Employment Administrators). Thus, many high school and college students spend a significant amount of time at work per week, even during the school year.

Research evidence on the psychological impact of work hours is mixed. Some studies indicate that long work hours (over 20 hours/week) are associated with psychological distress (Steinberg and Dornbusch 1991). In terms of self efficacy, some studies indicate that work hours are not related to self-reliance (Steinberg and Dornbusch 1991), mastery (Finch et al 1991), or locus of control (Bachman, Bare and Frankie 1986;

see Finch et al 1991).[3] Other research, however, finds a positive relationship between adolescent work hours and self-reliance (Steinberg and Dornbusch 1991; Greenberger 1988). How can we explain this discrepancy?

One possibility is that studies differ in their measurement of self-reliance. Studies finding no effect of work on self-reliance use measures that tap the adolescents' feeling of control over his/her life *in general*, such as the sense of mastery or locus of control. In contrast, studies indicating a positive relationship between work and self-reliance, assess the extent to which adolescents (rather than their parents) have control over specific money management decisions. For instance, adolescents who work long hours report more latitude in deciding how to spend money on leisure and dating activities (Greenberger 1988). In large part, this greater money management power is related to the adolescents simply having more disposable income to spend on consumer and leisure goods.

Such limited money management, however, does not necessarily imply a sense of control over one's world. After all, even if an adolescent decides to spend his/her money on a new CD or on a movie, this does not imply that he/she feels a sense of overall control, since his/her parents are likely to make financial decisions that have a much greater impact on the adolescents' life and long term goals. Most adolescents (working or not) are still largely dependent upon parents for the basic necessities of life such as food, shelter, and college expenses. For instance, one study indicates that over 80% of high school seniors who work do not save their earnings for college expenses or other long range goals (Johnston, Bachman and O'Mally 1982). Furthermore, almost half of

[3] Recall from our previous discussion that these terms are all roughly interchangeable with self efficacy

college students are financially dependent on their parents (National Center for Education Statistics 1993). Thus, since adolescents are not truly financially autonomous, money management seems to be an inadequate measure of autonomy for adolescents. Instead, more general measures of autonomy are more likely to tap the adolescents' overall sense of control over his/her world.

Demographic Differences in Work Hours

Previously we saw that minority and lower SES youth were less likely to be employed than white middle class adolescents. When such adolescents do obtain employment, however, they tend to work much longer hours than their counterparts. Studies indicate that black and lower SES students work longer hours than white middle class students in both high school (Schill et al. 1985) and college (Michigan State University 1993). For instance, one study found that among undergraduate students majoring in engineering, that black students worked nearly twice the hours of whites (more than 15 hours per week) (Michigan State University 1988). This intense work schedule for disadvantaged youth is likely to be the result of economic necessity (for those fortunate enough to find employment). Similar to research on employment status, however, researchers have not yet explored race/class differences in the impact of work hours on psychological outcomes for adolescents.

In terms of gender, research indicates that adolescent boys work longer hours than adolescent girls in high school (Lewin-Epstein 1981) and college (Michigan State University 1993). Some tentative research suggests that long work hours (more than nine hours per week) decreases psychological well being for

girls, but has little impact on adolescent boys (Cherlin and Furstenberg 1986a, 1986b; Yamoor and Mortimer 1990). Researchers have speculated that since there is a higher expectation that boys will work in adulthood, that long work hours confirm their image of masculinity and thus does not have as deleterious psychological effects as for adolescent girls (Shanahan, Finch, Mortimer and Ryu 1991). The present study will perform an initial test of racial and gender differences in the psychological impact of work hours for those in the stage of late adolescence.

QUALITY OF WORK

Thus far, we have discussed youth work in terms of work status and work hours. The findings are mixed regarding the impact of work on adolescents' psychological outcomes. How can we explain these inconsistent results? One possibility is that the psychological ramifications of youth work vary based on the content of the job itself. In other words, it is not employment per se, or even the number of hours worked that predicts psychological well being, but rather it is the *quality* of the job that is pertinent.

Let us begin with an illustrative example. Suppose two adolescents, Jack and Jill each work at their respective jobs for 20 hours/week. Jack is a fast food cook whose tasks are routine and involve extreme time pressure. Jill, in contrast, is a swim instructor whose job affords challenge and variety as well as a more leisurely pace. Although Jack and Jill each spend 20 hours per week at work, the quality of the activities they engage in are quite different. From this anecdotal example, it seems plausible because of the many stressors that Jack experiences at work, his psychological well being is more likely to suffer than Jill's. Yet a study measuring only 'work status' and/or 'work hours' would rank Jack and Jill's jobs as exactly equal (since they

are both employed and both work for 20 hours/week). Such a study, then, would not account for the variation in work quality when considering psychological implications.

Thus, it is important that we construct variables that adequately capture the experience of work. Since we are exploring work as a potentially important socialization context for adolescents, it is crucial that we fully understand what this context contains. For how can we understand work's effects if we do not understand work itself? What sorts of activities/tasks does the adolescent engage in while at work? What are the supervisor's expectations? What sorts of stressors is the adolescent exposed to while at work? These and other questions are important in understanding why, how, and when work affects psychological well being.

Fortunately, we have much to guide us in this quest. Although the youth literature is limited, the effects of work conditions on *adult* psychological well being has a long history, with roots in Adam Smith's conception of work as "toil and trouble", Marx's work on capitalism and worker alienation, Weber's "Protestant Ethic," and Durkheim's work on social structure and anomie (Dupre and Gagnier 1996; see Mortimer, Lorence and Kumka 1986, p.10). This existing literature on adults provides a fertile starting point for studies on youth work.

Salience of Youth Work

Some argue, however, that the adult work literature is unlikely to be applicable to adolescents. Since the jobs that individuals have during adolescence are often quite different from those attained later in life (particularly for those attending college), youth may not incorporate their current worker role into their identity. In other words, the worker role may not be *salient* (or important) to the

adolescent's long term sense of self. There is research evidence that the psychological impact of experiences depends upon the salience of the role in which such experiences occur (see Brown et al. 1987; Simon 1995; Thoits 1992, 1994). Since many youth do not expect to stay at such jobs over the long term, their work experiences may not be salient and thus will not have deleterious psychological outcomes.

For instance, suppose that Jack, college student majoring in engineering, has a part time job at McDonalds. Since Jack plans on obtaining a professional engineering job after graduation, he is unlikely to consider "fast food worker" to be a salient part of his long term identity. Although Jack's job involves repetitive and exhausting tasks, the knowledge that performing such tasks is temporary and his ultimate worker role will be quite different, allows Jack to distance himself from his "fast food worker" role and thus not experience a decrease in self efficacy or psychological well being.

Although this is a plausible argument, there are important reasons to suppose that the youth work role is, in fact, highly salient to adolescents and thus has an important impact on psychological outcomes. First, adolescence marks the first entry into the worker role for most individuals. Evidence suggests that individuals are most sensitive to environmental experiences at the point of first acquisition of a role (Van Maanen and Schein 1979; Mortimer, Finch and Maruyama 1988). Thus, adolescents may be highly responsive to work conditions simply because it is their first introduction to the world of work (Shanahan et al. 1991).

Second, adolescence is widely recognized as a critical period for the acquisition of a work identity and the formation of attitudes and orientations towards work (Erikson 1963). Since the work role is an important part of

adult identity, the adolescent is likely to imagine his/her future "possible self" in terms of the adult worker role. Although jobs during adolescence may have a different character than many adult jobs, the very act of working is likely to be salient in terms of its perceived connection to later adult work experiences (Clausen 1993; Mortimer and Johnson 1997). For instance, the employed adolescent may ponder how his/her current job will differ from adult working experiences. Or the adolescent may ask him/herself what job conditions are important in his/her imagined future adult work role. For those in late adolescence (such as college students), such questions are likely to be even more paramount since such individuals are closer to attaining an adult worker role (Super 1990). Thus, the very experience of employment is likely to be salient for adolescents since this life cycle period constitutes an important time for contemplating future adult worker roles.

Third, adolescents spend a significant amount of time working at part time jobs. As we shall see shortly, many facets of such jobs have been demonstrated to be harmful for adult psychological functioning. Even if the adolescent is certain that s/he will not encounter such conditions in his/her later adult work role, s/he is still likely to experience psychological discomfort during the time period in which s/he is working. For instance, suppose that Jack's job (cook at McDonalds) involves exhausting and dirty work under very hot conditions. The fact that in 3 years or so (after graduation) he will no longer encounter such conditions is unlikely to be of much comfort while Jack is experiencing noxious work conditions. Since depression is so common in adolescence and furthermore is a critical risk factor for later adult psychological functioning, any

experiences that may cause psychological distress (even temporarily) are of great concern.

Thus, it is important to study the psychological implications of work experiences for adolescents. Although the experiences and developmental tasks of adolescence and adulthood are not identical, a modified form of adult research is applicable to adolescents. The objective of the present study is to draw from and integrate the adult literature into an exploration of youth work and psychological well being. We shall now turn to a review of the adult literature on work conditions and psychological well being as well as review the few existing studies on adolescence that draw upon this adult literature.

Noxious Work Conditions

One important dimension of work quality in the adult literature is the various conditions experienced during the course of a job. There is considerable evidence that noxious work conditions are negatively related to adult workers' psychological well being. First, work conditions that involve uncomfortable physical tasks, such as dirty work (e.g. garbage collecting) lifting heavy objects (e.g. construction work), and excessive heat/cold conditions (e.g. winter maintenance) are related to distress and depression for both men (Kohn and Schooler 1983) and women (Miller, Kohn and Schooler 1986).

Other job conditions involve a time dimension such as work overload (too much work to perform in the time allotted), work *under*load (not enough work to perform), machine paced work, and time pressure. There is considerable evidence indicating that time related negative work conditions are positively

related to depression (Broadbent and Gath 1981; Bromet, Dew, Parkinson and Shulberg 1988; French, Caplan, and Van Harrison 1982; Houben 1991; House et al. 1986; Johansson 1981; Karaseck and Theorell 1990; Landsbergis 1988; Margolis and Farran 1984; Sutherland and Davidson 1993).

Other researchers, however, contend that noxious work conditions can have a positive (or at least neutral) impact on psychological well being. Such scholars argue that previous research has ignored individual agency in the psychological reactions to stressors (including noxious work conditions). According to this view, individuals are motivated to protect and enhance their well being (Thoits 1994b). Reactions to stressful conditions involve both emotion-focused coping (changing the affective meaning of the stressor) and problem-focused coping (removing the source of the stress). Empirical evidence confirms that individuals actively solve many of the problems that confront them (Kessler Turner and House 1989; Riessman 1990; Brown, Lemyre and Bifulco 1992; Silver, Boon and Stones 1983; Thoits 1994). As a result of such coping efforts, the argument goes, stressors have little impact on psychological well being (Turner and Avison 1992).

Some scholars take this argument one step further. They contend that not only do individual coping efforts mitigate the impact of stressors on psychological well being, but that coping with stress can actually have a positive impact on psychological well being. Following Hans Seyle's biological model of the stress process (Seyle 1976), some social stress researchers argue that although stress can sometimes produce distress, that more often, it creates eustress, or an increase in resistance to such stressors. Actively coping with stressors leads to positive changes such as an

increased stress capacity and a strengthening of coping resources. Furthermore, when the individual perceives him/herself to be successful in overcoming stressors, there is likely to be a heightened sense of self efficacy and psychological well being (Shanahan and Mortimer 1996; Wheaton 1994).

The above argument is limited, however, in that it ignores social structural conditions that constrain individual coping efforts. Stressors and coping resources are not randomly distributed, but rather vary based on one's social position (Menaghan and Merves 1984). As Pearlin puts it, "Certain kinds of life exigencies seem to be particularly resistant to individual coping efforts...There are situations in which 'problem solving' is not a realistic option" (Pearlin 1991 p.267).

Research conducted on the positive impact of stressors has generally focused on negative life events such as divorce (Riessman 1990) or unemployment (Kessler, Turner and House 1989). In these cases, individual coping efforts, such as searching for a new job or learning to live independently are often successful and lead to increased self efficacy and psychological well being. Noxious work conditions, in contrast, are more often chronic conditions (that are part and parcel of the job itself) and thus are more resistant to individual coping efforts. For example, it is difficult to imagine a garbage collector changing the dirty and heavy job conditions associated with his/her job or a waiter/waitress changing the fast paced nature of waiting on tables. Such conditions are ingrained within the structure of the job itself and individual coping efforts are unlikely to lead to any real change. Since the present study is interested in the psychological impact of noxious work conditions, we will follow the lead of most previous literatures by

conceptualizing of stressors as having a negative impact on psychological well being.

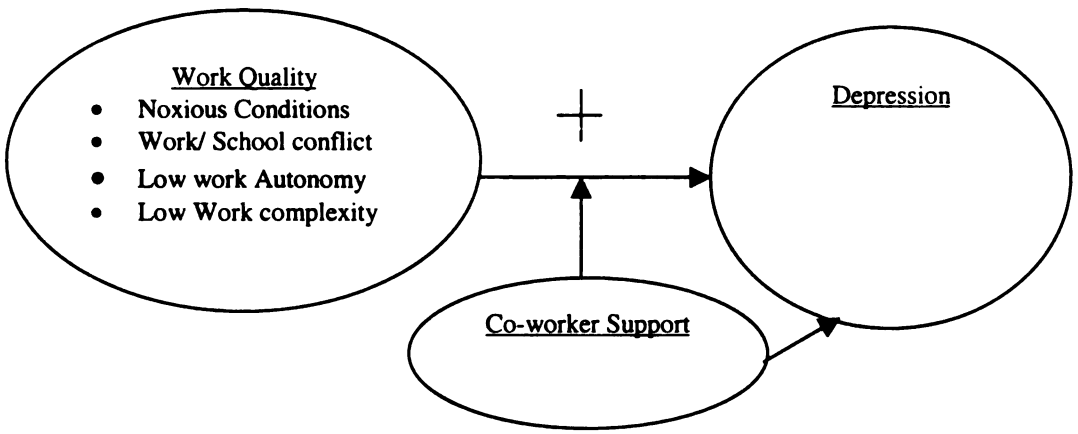
Adolescence and Noxious Work Conditions

Although there is considerable support for a negative relationship between noxious work conditions and psychological well being for adults, there is a paucity of research on work conditions in adolescence. This is surprising since adolescents, who primarily work in low-skilled service sector jobs, are likely to be exposed to poor working conditions. Research indicates that the majority of adolescents (54% of males and 59% of females) are currently working in retail trade jobs such as gas stations and eating/drinking establishments (Aronson et al. 1996). Such jobs are likely to include negative conditions such as time pressure and heavy, dirty work. For instance, the main task of a fast food worker, a cashier, or a waiter/waitress is to perform duties as quickly as possible, and the tasks of a gas station attendant or a construction worker include heavy lifting and dirty work.

Another noxious working condition that many adolescents face is the frequent adjustment to new job conditions. Many adolescents "job jump"; meaning that they have many different jobs over short periods of time. The frequent acquisition (and quitting) of jobs carries with it the responsibility of learning new work procedures, establishing work relations with co-workers and supervisors, and becoming proficient at new work duties. Adjusting to new job environments on a relatively frequent basis is likely to be more noxious than having one job over a long period of time. Thus, frequent job jumping is likely to be a salient work condition for adolescent workers.

There is little empirical research, however, on the impact of noxious work conditions on psychological outcomes for adolescents.

One notable exception (Shanahan et al. 1991) suggests that adolescents exposed to excessive time pressure at work experience more depressive affect over time. The present study attempts to add to the literature by examining the impact of noxious work conditions on adolescent psychological well being. The present study is limited in that it does not test for all relevant work conditions for adolescents. Since research on work conditions for adolescents is in its infancy stages, we will follow the lead of previous literatures on noxious work conditions for adults. We wish to explore the application of such previous literatures for adolescent workers. Thus, we will examine whether the negative relationship between noxious work conditions and psychological well being demonstrated for adults holds for adolescents. Specifically, we will examine whether noxious work conditions adolescents encounter at work (time pressure, excessive heat/cold or noise) have a negative impact on adolescents' psychological well being.



Thus, we will test the following hypothesis.

Figure 1. Proposed model of work quality, depression and co-worker support

Hypothesis 1: Noxious work conditions (excessive heat/cold, noise, and time pressures) are negatively related to psychological well being.

Role Conflict

Another important work dimension explored in the adult literature is the conflict experienced between work and other valued role domains. Role conflict refers to roles containing contradictory expectations of what the individual should be doing at a particular time. For adults, role conflict is most likely to occur between work and family demands. For instance, an individual's work role may require her to be on time for work, whereas her parental role may require her to care for a sick child. She cannot perform both of these roles adequately. Research indicates that the frustrations resulting from combining contradictory work and family demands lead to psychological distress, particularly for women who have greater household responsibilities (Aneshensel et al. 1981; Rosenfield 1989; Ross and Mirowsky 1988). Adding children into the picture further increases the contradictory nature of heavy work and family demands. For instance, research indicates that employed women with children have more psychological distress than those without children (Kessler and McRae 1981).

Since the student role is widely regarded as the central "business" of the adolescent's life (Shanahan et al. 1991), and because youth work is so prevalent, adolescents are likely to experience contradictions between work and school demands (which may subsequently cause psychological distress). Before we examine the psychological impact of work/school conflict, let us first examine the ways in which work and school might contain contradictory demands.

First, daily time is finite and thus hours spent engaging in work tasks diminish the time potentially available for schoolwork. Researchers taking this perspective generally examine the impact of work hours on school related

outcomes. Many studies fail to find an association, however, between work hours and school achievement (measured by the student's grade point average) (Mortimer and Shanahan 1991, 1994). Researcher generally explain this null finding by pointing to the meager amount of time required for homework in the United States. The national average for time spent on homework during high school has been estimated as less than 4 hours/week (Greenberger and Steinberg, 1986) to as little as one hour per week (Lewin-Epstein 1981). Furthermore, in the case of college students, although homework time is more demanding, classroom time decreases significantly from about 35 hours/week in high school to 12-15 hours/week in college. Since this leaves college students with an 20-25 hours per week to study, the total time spent on school related activities is likely to be similar in high school and college. As a result of modest time requirements for school related activities, Steinberg and Dornbusch (1991) argue that it is unlikely that work (even intense work) would adversely impact upon school achievement.

Other researchers however, argue that measuring school achievement in terms of grade point averages has masked the negative impact of long work hours. Students may compensate for time lost to work by taking less demanding course work (that requires less effort), curbing participation in outside school activities or copying school work from classmates in order to maintain their GPA. Empirical studies confirm that long work hours in high school (usually defined as >20 hours per/week) are associated with more school-related deviance (e.g. cheating, copying others homework), taking less demanding course-work, lower participation in extra-curricular activities, and lower aspirations and attainment of post-secondary education (Carr 1996; D'Amico 1984; Greenberger 1988; Marsh 1991; Mortimer and Finch 1986; Steinberg and

Dornbusch 1991). Thus, adolescents with overly demanding jobs appear to suffer in terms of achieving their full potential for school achievement.

Another reason why adolescents might experience work/school conflict is because of the timing of work shifts. In other words, when do adolescents work in relation to time spent at school? First, the issue of whether adolescents work on school days or weekends (or both) is important. Since homework assignments and exams are given during the school week, an individual who works on most school days will have a more difficult time completing such assignments than an individual working primarily weekend shifts. It could be argued that an individual working during the school week could play "catch up" on the weekend or study in advance for the following week. Yet homework assignments and study guides for tests are often distributed during the week and study groups usually do not form until a day or two before an exam. Thus, adolescents working primarily during the school week are at a disadvantage in terms of taking advantage of academic resources.

Furthermore, the timing of work shifts is likely to differ for high school vs. college students. Consider that young adolescents have legal restrictions on the number of hours they can work per week. For instance, the Fair Labor Standards Act allows 14 and 15 year olds to work 3 hours a day when school is in session, and only allows such youth to work between the hours of 7:00am and 7:00pm (Walker 1990). Although older high school students do not have such legal restrictions, they are still restricted in the hours available to work since they attend school approximately 7 hours per day and often have an evening curfew imposed by their parents. Thus, high school students often have

restrictions on the times they can work (early evenings or weekends).

In contrast, college students are only in class for a few hours per day and have no legal work restrictions. Furthermore, since the majority (72%) of college students do not live at home (National Center for Education Statistics 1993), they are not as closely monitored by their parents. As a result, college students are not restricted from working at any time of the day or night. For those adolescents who choose to work late evening hours or other inconvenient times, work/school conflict is likely to ensue. For instance, a high school student who works for 3 hours each evening (e.g. 7-10pm) is likely to experience less interference with school responsibilities than a college student who works those same 3 hours per day but from 2am to 5 am. Although the adolescents in the above example are working the same number of hours, the late shift is more likely to interfere with getting adequate sleep to attend and be alert in class the next day as well as completing one's homework assignments.

In addition to school/work conflict in terms of the time dimension, a less obvious reason that work and school can conflict is in terms of energy levels. A job that contains a high degree of work stress (e.g. excessive heat/cold, time demands, etc) is likely to require a great deal of energy; energy that is not left over for schoolwork. For instance, suppose Jack and Jill both work for 25 hours per week. Jack's job involves heavy lifting and extremely hot conditions whereas Jill's job involves non-strenuous tasks such as paper work and answering phones. Even though Jack and Jill technically have the same amount of time outside of work to engage in school responsibilities, the amount of energy left over from work is quite different. Jill often comes home from work and spends a few hours on homework, whereas Jack is simply too

exhausted to expend mental energy on homework after his physically demanding job.

Furthermore, work/school conflict in terms of energy levels is likely to increase from high school to college. Recall that school requirements involve more class time for high school students and more homework time for college students. Even if these activities take the same amount of overall time per week, they are not equivalent in terms of the energy required. Sitting in class and taking notes is a more passive activity whereas writing papers, studying for exams, and preparing student presentations are active activities requiring more thought and energy. Whereas a high school student may still be able to sit in class even when exhausted from work, a college student may choose to delay or ignore homework assignments (for which there are no *immediate* consequences). Thus, work and school demands are more likely to conflict for college students as a result of the increased energy levels required to perform school related tasks.

There are also reasons to suppose, however, that work/school conflict might decrease from high school to college. First, juggling work and school demands is a skill that can be learned and developed over time. Since most adolescents begin working in high school, by the time they reach college, most have had ample experience in handling conflicting demands of work and school. Over time, adolescents are likely to develop time management skills as well as become more competent (and thus more efficient) in performing both school and work activities. Thus, although work/school conflict cannot be completely overcome, older adolescents are less likely to experience intense work/school conflict as a result of their increased skill capacity in dealing with such conflict.

Another reason why work/school conflict is likely to decrease from high school to college is because college students' perception of the relationship between work and school is likely to change. As we have seen, high school students generally use their earnings for short term needs such as clothing, transportation and entertainment (Bachman et al. 1986; 1987; Greenberger 1988). In contrast, although almost half of college students are still dependent on their parents (National Center for Education Statistics 1993), many still contribute to their college or living expenses (Greenberger 1988). Since working is often essential in order to attend the university, college students are likely to view their work role as contributing to (rather than conflicting with) school outcomes.

It is important to note, however, that even if an individual *perceives* work and school roles as complementary, s/he may still experience *actual* work/school conflict. For instance, suppose that Jay must work 35 hours/week in order to attend university. Although he views work as essential to his schooling, he is still likely to have difficulty keeping up with school demands as a result of finite energy and time resources (that are heavily devoted to work). Thus, in this instance, it is perceived (not actual) work/school conflict that is likely to decrease for college students.

In sum, in terms of the change in level of work/school conflict from high school to college, we have seen that there are reasons to expect that work/school conflict increases from high school to college (i.e. because of increased energy required for college work). There are also reasons to suspect, however, that work/school conflict decreases for college students (i.e. because of increased competency in juggling roles or because work and school roles are viewed as

complementary). Thus, although we do not hypothesize the direction of effect, we will test for changes in work/school conflict as adolescents move from high school to college.

Work/School Conflict and Psychological Well Being

Now that we have examined the ways in which work and school role demands are contradictory, let us explore a more relevant question for purposes of this study: what are the *psychological implications* of work/school conflict? Although there is ample research on the existence of work/school conflict for adolescents, there is a paucity of studies examining the psychological implications of such conflict. The studies that do exist indicate that adolescents who perceive significant levels of work/school conflict are more likely to be depressed (Shanahan et al 1991), whereas those who perceive low levels of work/school conflict experience increased psychological well being (Finch et al 1991).

The present study will examine the impact of contradictions in work and school roles for an older adolescent sample. Consistent with previous research on youth work, we hypothesize the following (see Figure 1):

Hypothesis 2: Perceived work/school conflict is negatively related to psychological well being

Alienated Labor and Occupational Self-Direction

Another important dimension of work quality in the adult literature is occupational self-direction. Before discussing this contemporary term, let us briefly explore its classical roots in the study of alienated

labor. Alienated Labor is defined as a situation in which the worker has little control over his/her own labor and is doing a job in which his/her skills or capacities are underutilized (see Greenberg and Grunberg 1995). The origins of alienated labor lie in the advent of industrialization and increased division of labor in the late 19th and early 20th centuries. Period scholars argued that although industrial capitalism increased productivity, it also produced extremely negative living and working conditions. Beginning with Adam Smith's conceptualization of work as "the real price of everything" (Smith 1937), scholars have theorized on the impact of capitalist labor on the individual worker.

Modern writings on alienated labor owe a large debt to the early writings of Karl Marx (Marx 1964 [1844]). Marx argued that capitalist production increases the value placed on material goods while it decreases the value placed upon individuals. Marx believed that industrialized capitalism denied workers' the right to control their work activity and the products of their labor. Specifically, he argued that workers became separated from four aspects of their work: the products of their labor, the process of work, the ability to be creative, and the need to be part of a collective group. As a result, workers become alienated not only from their work, but from the society as a whole. In other words, "Workers find no place, no thing, and no experience that they can truly call their own (Fromm 1968).

Since WWII, many industrialized nations have moved from an economy based on manufacturing, to one based on service and technology (Wilson 1997). For instance, during the 1980s, for every thousand people of working-age, the U.S. created 27 clerical, sales and service jobs and lost 16 production,

transportation and laborer jobs (Wilson 1997; p.27). Contemporary theorists argue that although the specific types of jobs may have changed in the post-industrialized economy, many of today's occupations contain their own flavor of alienated labor.

Some theorists focus on technological changes in postindustrial society and its impact on alienated labor. Robert Blauner, in his groundbreaking book, *Alienation and Freedom* (1964), performed case studies on four manufacturing industries (printing, textiles, automobiles and chemicals) at various stages of technological development. Blauner's findings indicate that although alienated labor increases during the initial stages of technological development (e.g. assembly-line technologies), alienation decreases again with more advanced continuous-process technologies.

More recent studies, however, find that advanced technologies do not *always* reduce alienated labor. Instead, it depends upon how the technology is used within the job itself. For instance, although clerical data entry workers use advanced technology (e.g. computers), they still experience a significant degree of alienation because of the repetitiveness of their tasks (e.g. Noble 1984). Thus, the degree of alienated labor depends not only on the nature of the technology, but also upon the use of such technologies within various occupations.

Other theorists have focused on alienated labor in relation to the many service jobs in today's economy. Scholars argue that in postindustrial economies, the capacity to deal with people (rather than work with "things") has become the central task of today's service jobs (Bell 1973). Arlie Hochschild (1983) refers to this as "emotional labor" which requires the worker to "induce or suppress feeling in order to sustain the outward countenance that produces the proper state of mind in

others." (p. 7). Estimates indicate that between one-half and one third of U.S. workers have jobs that require significant levels of emotional labor. Hochschild argues that the constant display of emotion based on capitalist needs causes workers to separate themselves from their own feelings. Eventually this limits the worker's capacity to feel and thus workers become alienated from the services that they provide. Thus, just as alienated labor occurs in a manufacturing economy, so it does also in today's service and technology economy.

The question of interest in the present study is: what is the impact of alienated labor on psychological functioning? Contemporary pioneers in the field, Kohn and colleagues, have done groundbreaking research examining the effect of alienated labor on worker's sense of efficacy and psychological well being. These researchers have specified and operationalized the concept of alienated labor, which they refer to as occupational self-direction. Kohn and colleagues argue that there are three interrelated conditions of work that form occupational self-direction (Kohn and Schooler 1983). The first dimension is the *substantive complexity* of one's job. Complex work involves tasks that require independent judgment and initiative. Generally, substantively complex jobs involve working with "data" (e.g. engineers) or "people" (e.g. consultants) rather than "things" (e.g. assembly line worker). Certainly this is a general rule containing notable exceptions such as an artist whose profession involves highly complex work involving "things" or a secretary who works with "data" despite the low substantive complexity of the job. Yet regardless of whether one works with data, people, or things, substantively complex work always involves high levels of thought, creativity, and independent judgment.

A second factor that may limit occupational self-direction is the *closeness of supervision* at work. A supervisor who tightly regulates employees' activities precludes workers from exercising their own judgment in performing work tasks. For instance, consider two employees at a survey research center. First, a phone survey interviewer is closely supervised since he/she receives explicit instructions before each work task and is often monitored while he/she makes phone calls. In contrast, a data analyst is not as closely supervised since he/she spends a significant amount of time deciding how to analyze and present data before his/her work is evaluated by a supervisor.

The third factor determining occupational self-direction is the *routinization of work tasks*. Jobs involving self-direction involve tasks that can be performed in a variety of ways whereas jobs with low self-direction provide only one method of solving work related problems. For instance, the survey interviewer is given a script to read for each phone call, with little room for variation. In contrast, each time the analyst receives data, he/she evaluates a variety of possible methods for analysis.

It is important to note that these three factors are interrelated and work in tandem. Each factor by itself is a necessary but not sufficient condition for occupational self-direction. For instance, suppose Barb is a data analyst for a market research company. She has a good deal of autonomy since her supervisor does not closely monitor her and she uses a variety of statistical methodologies to analyze data. However, the work itself is not substantively complex. She usually analyzes customer satisfaction surveys, which lack a theoretical component. As a result, the work does not afford Barb an opportunity for creativity and foresight. Thus, although Barb has two out of the three requirements for occupational self-direction (variety and flexible

supervision), the lack of substantive complexity precludes her from having the full experience of occupational self-direction. In sum, although the dimensions of occupational self-direction often occur together, this is not necessarily the case. Rather, the experience of occupational self-direction involves all of the above mentioned factors (Kohn and Schooler 1983).

Kohn and colleagues argue that occupational self-direction is intimately tied to self-efficacy and psychological well being. Specifically, Kohn and Schooler (1983) argue that experiencing opportunities for self-direction at work, fosters a self-directed personality. According to Kohn's generalization theory, individuals learn or generalize the "lessons of the job to outside-the-job realities (Kohn 1981: p.290). Thus, workers who experience high levels of occupational self-direction are likely to have a more self-directed orientation in other aspects of life.

There is considerable evidence to support the position that occupational self-direction has a negative impact on self-efficacy, or the individual's assessment of his/her competence in the world. Research indicates that all elements of occupational self direction (low substantive complexity, close supervision, and highly routinized work tasks) are related to a self-directed orientation, intellectual flexibility, and self-efficacy (Gecas and Seff 1989; Kohn, Naoi, Schoenbach, Schooler and Slomczynski 1990; Link, Lennon and Dohrenwend 1993; Mortimer et al 1986; Kohn and Schooler 1983; Spenner and Otto, 1985). Such findings have been replicated even in cultures that do not stress individual autonomy and self-reliance. For instance, research indicates that the relationship between occupational self-direction and self-efficacy holds for Polish and

Japanese men (Kohn et al, 1990) and Japanese women (Naoi and Schooler 1990; Schoooler and Naoi 1988).

In turn, low self-efficacy and a reduced assesssment of effectiveness is associated with psychological distress. There is considerable evidence for a negative relationship between self-efficacy and psychological distress for adults (Link et al. 1993; Mirowsky and Ross 1989; Pearlin et al. 1981; Stets 1995) and adolescents (McFarlane et al. 1995). Furthermore, studies indicate that the negative relationship between occupational self-direction and psychological well being is mediated by self-efficacy (Kohn and Schooler 1983; Kohn et al. 1990). Thus, self-efficacy is an important vehicle through which occupational self-direction impacts upon psychological well being.

Although the above argument is plausible, an alternative explanation is that social selection processes play a role in the relationship between occupational self-direction and psychological well being. Specifically, it could be argued that work conditions do not lead to psychological distress (through lowered self-efficacy), but rather that prior levels of psychological distress lead to a disability in functioning, which in turn, may lead to difficulty in attaining a job affording high levels of self-direction (Link et al 1993). Thus, simply observing a relationship between occupational self-direction and self-efficacy does not necessarily indicate causal direction. Some studies have attempted to test for the alternative arguments of social causation and social selection with longitudinal data. Most studies have found support for both social causation and social selection arguments, such that prior levels of self-efficacy lead to subsequent occupational achievement and self-direction as well as occupational self-direction leading to self-efficacy (Kohn and Schooler 1983; Mortimer et al 1986). Other

longitudinal studies, however, have found greater support for the social causation hypothesis (Link et al 1993; Kohn et al 1990). Future research is needed to elaborate on the reciprocal nature of the relationship between occupational self-direction and self-efficacy and distress.

Adolescence and Occupational Self Direction

Although there is considerable support for the adult population, the research on the outcomes of work complexity and autonomy for adolescents is sparse. Yet employed adolescents are almost universally exposed to conditions of low occupational self-direction. As discussed previously, most adolescents work in retail and service jobs that afford few opportunities to exercise authority or attain advancement (Greenberger and Steinberg 1981) and involve repetitive tasks that require few skills or training (Greenberger, Steinberg and Ruggiero 1982; Osterman 1989).

As an illustration, fast food restaurants employ primarily adolescents and young adults (Leidner 1991; Reiter 1996). Research indicates that fast food workers experience very low occupational self-direction. For instance, Reiter (1996) in her study on "Burger King", found that there were very specific rules for all work tasks (e.g. it should take exactly 23 seconds to prepare a whopper), indicating high routinization of work tasks. Fast food jobs also lacked in substantive complexity as one worker commented "A moron could learn this job" (p. 150). Furthermore, workers were closely supervised as a manager was always on the floor shouting words of so called "encouragement" to make sure workers were moving quickly. Since many adolescents work at similar service (or retail) jobs, it is reasonable to assume that the elements of occupational self-direction are

often quite low for adolescent workers.

Most studies specific to adolescents, however, have broken down occupational self-direction into two categories: autonomy and complexity. *Work autonomy* corresponds roughly to Kohn's notion of "closeness of supervision" (Schwalbe 1985). This refers to the extent to which workers can independently decide how to perform work tasks. *Work complexity* is a combination of Kohn's concept of "routinization of work tasks" (can work tasks be performed in a variety of ways?) and "substantive complexity" (do work tasks require skill, judgment and creativity?). Studies on adolescent workers, however, have generally examined *either* work autonomy *or* work complexity rather than both in a single study.

The present study asks the question: Is occupational self-direction (specifically work autonomy and work complexity) negatively related to adolescents' psychological well being, as has been demonstrated for adult populations? Some preliminary evidence supports this contention. Schulenberg and Bachman (1993) found that adolescents' psychological well being suffered when they worked at jobs that involved low complexity over long periods of time. Furthermore, studies demonstrate a positive impact of work autonomy on self-efficacy. Research indicates that being free from close supervision and being included in discussions about work tasks increases feelings of competence and mastery in adolescents (Call 1996; Eccles et al. 1991; Montemayor 1983; Steinberg 1990).

Other research, however, suggests that self-direction at work may actually have a *negative* impact on adolescents' psychological well being. One longitudinal study found that work autonomy actually *increased* depressive

affect among tenth grade boys (Shanahan et. al. 1991). Shanahan and colleagues speculated that this finding was due to the young age of the respondents (10^{th} graders). Most young adolescents have had little experience in making independent decisions and being self-directed when performing various tasks. For instance, a young adolescent may do homework or chores in the home, but his/her teachers or parents are likely to heavily guide these activities. The young adolescent is likely to confront the expectation for independent decision making for the first time at a part-time job. Such expectations may be threatening at first for those with little experience in taking on such responsibilities. As one gains experience, however, such autonomy may become less threatening and in fact begin to have salutary psychological implications, as has been shown for adults. The question becomes...at what point in the life cycle does the experience of work autonomy cease to be threatening, and begin to have a positive impact on psychological well being?

Currently, the literature on work autonomy and psychological well being contains a gap between studying early adolescence and adulthood. We know that occupational self-direction has salutary psychological outcomes for post-college young adults (Mortimer 1986) and adults (Kohn et al. 1990; Kohn and Schooler 1983). The period of late adolescence, however, has been neglected in the debate on youth work. To my knowledge, there are currently no empirical studies on the psychological outcomes of work autonomy and work complexity for those in late adolescence.[4]

For scholars interested in adolescent development and the transition to adulthood, it is important to explore at what point in the life cycle work autonomy and complexity begin to have a positive impact on psychological well being. The present study will

[4] As discussed in a previous section, the present study considers college students to be in the stage of "late adolescence"

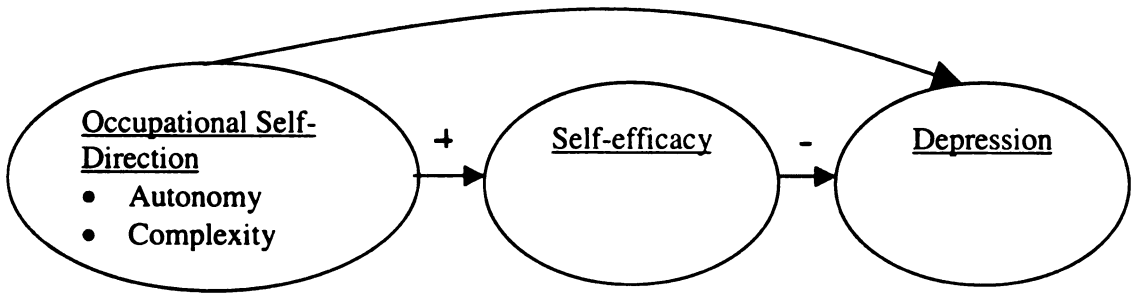
attempt to fill this gap by looking at the relationship between work autonomy and psychological well being during the life cycle period of late adolescence. We would expect that although work autonomy and complexity during early adolescence is threatening, that by the time of late adolescence, most individuals will have had sufficient work experience to begin benefiting from more independent work conditions. Thus, I expect that the relationship between work autonomy/complexity and psychological well being for older adolescents is similar to that of adults such that:

Hypothesis 3a: Work autonomy and work complexity are both positively related to psychological well being **(see Figure 1)**

Hypothesis 3b: The positive relationship between work autonomy and well being is mediated by self-efficacy **(see Figure 2).**

Hypothesis 3c: The positive relationship between work complexity and well being is mediated by self-efficacy **(see Figure 2)**

Figure 2 Mediating role of self-efficacy



Demographic Differences in Work Conditions

We have seen that work quality (i.e. work conditions, work/school conflict and work autonomy and complexity) are likely to have important psychological implications for adolescents. Yet, the psychological impact of work quality may vary by factors such as age, gender, race, and future occupational goals. Let us explore each in turn.

Age is likely to be an important factor in the psychological impact of youth work. The relationship between work autonomy and complexity and psychological well being may vary, based on two factors related to age. First, there may be age differences in the effects of work *within* the period of late adolescence. The closer to adulthood that the adolescent approaches, the more likely that autonomy and/or complexity will become important to his/her psychological well being (as it is for adults). For instance, a 22 year old, ready to embark on a professional career may benefit more from work autonomy and complexity than an 18 year old who is just beginning his/her college career. Thus, I will test for the interaction effect of age and work autonomy and complexity on psychological well being.

Second, although we have documented that the majority of adolescents begin work during early to mid adolescence, there is a significant minority of older adolescents with little or no previous work experience. For them, there are reasons to think that work autonomy/complexity could have positive or negative effects. As discussed previously, work autonomy is threatening to early adolescents and has been shown to lead to psychological distress. One possibility is that older adolescents respond in a similar fashion since similar to younger workers, they have no previous work experience. The experience of being thrust into work responsibilities

that require high levels of autonomy may be threatening to older adolescents with no work history.

On the other hand, older adolescents are generally more mature psychologically and socially than their younger peers, whether or not they have previous work experience. Research indicates that the ability to understand oneself and our relationships with others improves throughout the adolescent years (Barenboim 1981; Selman 1980). Furthermore, by the time of late adolescence, even those without previous work experience are likely to have participated in other activities involving autonomy and complexity such as extra-curricular activities, volunteer work, and self directed school assignments. As a result, those in the stage of late adolescence may benefit from work autonomy and complexity, despite their lack of work history. Thus, although I do not hypothesize the direction of effects, the present study will test for differences in the effects of work autonomy and complexity on psychological well being for those with and without previous work experience.

Second, some argue that the psychological impact of work autonomy and complexity for adolescents varies based on the relationship of the part time job to future occupational goals. Specifically, when the current job is similar to the adolescent's image of his/her future worker self, conditions such as low autonomy or low complexity are less likely to have negative psychological outcomes. For instance, the psychological impact of waiting on tables is less likely to have a negative impact on a hospitality business major than an engineering major. Since the hospitality business major sees him/herself as having a related occupation in the future, the current job (despite its low autonomy and complexity) may actually contribute

positively to the adolescent's sense of future self. Unfortunately, the present study is limited in its ability to explore this important issue. An important task for future research is to explore in detail how respondents view the relationship between their current job and future occupational aspirations and how this contributes to psychological well being.

Third, race is an important variable to consider when examining the impact of work conditions on self-efficacy and psychological well being. As discussed previously, blacks are less likely to attain jobs through contacts. Research has not examined, however, whether jobs attained through contacts differ in terms of job quality. To my knowledge, studies have only addressed this issue in terms of monetary differences. For instance, some studies find that found that white youth have contacts to better paying jobs than black youth (Korenman and Turner 1996; Michigan State Unviversity 1993). Conspicuously missing from the current research is an examination of racial differences in work quality and its impact on psychological well being.

The present study will examine these issues related to race. First, we will explore whether there are differences between jobs held by black and white adolescents in terms of work conditions, work/school conflict, work autonomy, and work complexity. Second, we shall explore whether the psychological impact of such measures of work quality differ based on race. Since there is little previous research to guide such a quest, the present study will not hypothesize direction of effect.

Lastly, gender is likely to be an important variable in the relationship between work quality and psychological outcomes. Although little attention has been paid to gender differences in the youth work literature (Yamoor and Mortimer 1990), we will point out some notable exceptions. First, a handful of

studies indicate that work/school conflict and noxious work conditions increase depression for adolescent boys, but have little impact on adolescent girls (Mortimer, Shanahan and Call 1996; Shanahan et al. 1991). One explanation is that since there is a higher expectation that boys will work in adulthood, that difficulties at work (i.e. stressors, conflicts) are more likely to threaten boys' identity and thus have a negative psychological effect than for adolescent girls (Shanahan, Finch, Mortimer and Ryu 1991).

Others researchers, however, have questioned this explanation. Recent studies indicate that girls' occupational aspirations are generally higher than boys (Farmer 1983; Shapiro and Crowley 1982) and that less than one fourth of girls think they will be full time homemakers (Ireson and Gill 1988). Furthermore, the majority of college students (whether male or female) are presumably expecting to work in adulthood since they are attaining a marketable degree. Thus, the present study will examine whether there continue to be gender differences in the psychological impact of noxious work conditions and work/school conflict for those in late adolescence.

Work complexity is another measure of work quality that may have different psychological effects based on gender. Similar to adults, jobs in adolescence are highly sex-segregated, particularly in early adolescence (Greenberger and Steinberg 1986; Lewin-Epstein 1981). Specifically, girls are more likely to perform informal work in private homes (e.g. babysitting) whereas boys are more likely to work in the formal sector (e.g. paper carrier, manual labor, restaurant work) (Mortimer et al. 1990).

Some studies indicate that jobs held by adolescent girls tend to be less complex than jobs held by their male counterparts. For instance, one study that coded the occupational complexity of youth work based on the

Dictionary of Occupational Titles (U.S. Department of Labor 1986), found that girls' jobs were less complex than boys' jobs in terms of dealing with data and things. With regards to complexity with people, however, there were no significant differences with respect to gender (Mortimer et al. 1990).

The researchers of the above study were puzzled, however, by the DOT ratings of boys and girls jobs as equally complex in terms of dealing with people. Specifically, Mortimer et al. (1990) argue that the job babysitter (so common for young adolescent girls) should have a high "complexity with people" rating since it involves intensive interaction with children as well as full responsibility for childrens' well being. In contrast, boys' jobs (such as manual labor or paper carrier), do not involve interaction with others as a main job component. It may be that the DOT ratings reflects, in part, a devaluation of "caring work" which has traditionally been women's work. Since babysitting primarily involves caring for others, it may be that despite its complexity, it is not rated as such because of its devalued status.

But whatever the gender differences in level of complexity, another important issue is whether the psychological impact of complexity varies by gender. Unfortunately, no studies to date test for such effects. In terms of the other measure of occupational self-direction (work autonomy), however, there have been a few studies exploring such Social support refers to actual or perceived resources available from others that increase the individual's well being and facilitates the management of stress (McIntosh 1991). Significant others can provide instrumental, informational, and/or emotional assistance to the individual (House and Kahn 1985). A considerable body of research indicates that social support has a direct positive impact on

psychological well being. Furthermore, research indicates that social support moderates the relationship between stress and health, such that the deleterious effects of stress on health outcomes are lessened for those with high levels of social support (see reviews: Cohen and Wills 1985; House et al. 1988; Kessler and McLeod 1985).

Social support has been demonstrated to buffer the negative relationship between two types of stressors (life events and chronic strains) and psychological well-being (e.g. Cohen and Wills 1985). Life events refer to acute changes that require major behavioral readjustments within a short period of time, whereas chronic strains refer to persistent demands that require readjustments over prolonged periods of time (see Thoits 1995).

Thus far, the present study has not conceptualized of work quality as "stress." However, we find this to be a useful conceptualization when considering the impact of social support on the relationship between work quality and psychological well being. Aspects of work quality most closely resemble chronic strains since individuals often have a particular job for many months or years. As a result, workers must deal with aspects of work including autonomy, complexity, work/school conflict, and noxious work conditions on a consistent (often daily) basis. When these aspects of work are negative, they can be conceptualized as chronic strains since they require constant readjustment on the part of the worker. For instance, if Joe experiences time contradictions between work and school demands, or is exposed to hot and dangerous conditions at work, he must deal with these aspects of work quality on a consistent basis, which may have psychological implications. Thus, for the purpose of relating our exploration of social support to the literature on stress-distress relationships, we will conceptualize of work quality as chronic strains for the time being.

When examining the mitigating role of social support, it is important to recall that support does not *always* buffer the relationship between stress and health. What are the dimensions of social support that have implications for the relationship between stress and psychological well being?

Source of Support

First, the source of social support has an impact on its' ability to play a buffering role. Scholars argue that when the source of social support matches the context of the stressor, that support will have a greater buffering role in the relationship between stress and health (House 1980). For instance, although social support from one's family may mitigate the negative consequences of family stressors, it is likely to have little impact on the effects of poor work quality. Similarly, receiving support from one's co-workers is unlikely to mitigate the negative impact of an individual's family problems or marital discord.

Specific to the work context, scholars have speculated that support from co-workers (rather than from family or friends) is especially important in lessening the negative impact of poor work quality on psychological well being (Beehr 1985). Research confirms that support from co-workers has a positive direct effect on psychological well being (Blau 1981; Fenlason and Beehr 1994; Ganster et al. 1986) as well as buffers the negative impact of poor work quality on psychological well being (Fenlason and Beehr 1994; Henderson and Argyle 1985; House 1980; Moore 1985; Pugliesi 1995).

Although there is considerable evidence for a direct and buffering role of co-worker social support in the adult work literature, to my knowledge, the role of co-worker support for *adolescent* workers has not yet been explored. The following illustrative example serves to place the concept of contextual support within an adolescent framework. Suppose 16 year old Brad is a cook at the "Mongolian BBQ." His job involves low complexity of work tasks as well as working under extremely hot temperatures. Although when Brad comes home he receives support from his family, this cannot directly change the environment in which he works. In contrast, when Brad is at work, he spends a significant amount of time joking and griping about the job with his co-workers. Although this does not change the actual work that he performs, the character of the working environment is altered. Although Brad still must perform routine and pressured tasks, he is among those who directly empathize with his experience and the camaraderie with his co-workers provides a positive atmosphere that may buffer the impact of the actual work quality.

A related issue for youth workers is whether one's co-workers are primarily peers (adolescents) or non-peers (adult workers). Research indicates that many adolescents work primarily with those of similar age (Greenberger and Steinberg 1986; Greenberger 1988; Safyer, Leahy and Colan 1995). I would speculate that when an adolescent's co-workers are primarily peers, that it is easier to develop an atmosphere of camaraderie as described above. For instance, if Brad's co-workers are primarily other students from college, he is likely to share with them common interests, problems and lifestyles. In contrast, middle-aged co-workers may be more concerned with their mortgage payments or their children than with Brad's concerns of college

exams, dorm life, and dating. Thus, a supportive peer atmosphere is more likely to develop when one's co-workers are primarily other adolescents. The present study will examine whether youth workers who work primarily with their peers (other adolescents) perceive their co-workers to be more supportive than those who work primarily with non-peer groups (adult workers).

Type of Support

Another dimension of social support that has important implications for psychological well being is the type of social support. Researchers examining the psychological implications of work quality generally divide social support into two global types: emotional and instrumental support (Blau 1981; Ganster et al. 1986; Kaufmann and Beehr 1986; Thoits 1982). Emotional support refers to caring or listening empathetically to another person whereas instrumental support refers to performing concrete tasks for another such as giving advice or physical assistance (Cohen and Wills 1985).

Scholars suggest that emotional and instrumental support have a direct positive impact on psychological well being, and also replenish the resources depleted by stressors (Cohen and Wills 1985). Empirical research on work quality (for adults) confirms that emotional/instrumental support has a direct effect on psychological well being as well as buffers the negative impact of poor work quality on psychological well being (Blau 1981; Fenlason and Beehr 1994; Ganster et al. 1986). Since research on youth work has not explored the role of social support, the present study will follow the lead of the above studies on adult work quality, and

use an emotional measure of social support. An important task for future research is to compare the impact of various types of social support for adolescent workers' psychological well being.

Perceived Support

Another important distinction in the social support literature is between perceived and received support. Received support refers to the actual supportive the individual receives during times of need. Alternately, perceived support refers to the perception that one is cared for and that one's social network will hypothetically provide support if needed. Research demonstrates that perceived support and received support are not highly correlated (Dunkel-Schetter and Bennett 1990).

Evidence suggests that perceived support is important in moderating the relationship between stress and health. Research demonstrates that the level of perceived support is a better predictor of adjustment to stressful circumstances than the amount of support desired (Henderson, Byrne, and Duncan-Jones 1981) or the actual amount of received support (Blazer 1982; Kessler 1992). Thus, it is the *perception* that others would provide support during times of need that lessens the negative impact of strains on psychological well being. Research on work quality has generally used measures of perceived support, and the present study will follow suite when studying youth workers.

Cost of Social Relationships

Thus far, we have spoken of social support as having positive effects (direct or buffering) on psychological well being. Often overlooked in the literature on social support, are the costs associated with social

relationships. In addition to receiving social support, being a member in a social network often entails support giving as well. While providing support to others in moderation is fine, excessive support giving may have a negative impact on psychological well being (Gove, Style and Hughes 1990; Rook 1992; Thoits 1992).

With regards to adolescent workers, those who perceive high levels of co-worker social support, may also be obligated to provide social support to such co-workers. Such demands, if excessive, may have a negative impact on adolescents' psychological well being. Furthermore, adolescents typically have social relationships outside of work such as friends and family. Although such relationships provide social support to adolescents (Barrera 1981; Dornbusch 1989; Greenberg et al. 1983), youth employment may interfere with fulfilling demands for support giving to friends and family. Some preliminary research indicates that adolescents who work have less close relationships with their peers (Greenberger et al. 1980; Steinberg et al. 1982) and spend less time with family members (Greenberger et al. 1980).

Future research is needed to clarify whether it is the lack of support giving, specifically, that causes this decline in family/friend relationships or whether there are other factors involved. Furthermore, much more needs to be known regarding how work interferes with such relationships (e.g. time, energy, etc.). Although this is an important task, the present study is limited in its ability to test for the costs of social support.

Conclusion

In sum, in order to fully understand how working affects adolescents, we must explore under what circumstances youth work quality has the greatest impact on psychological well being. The present study will draw

upon previous literatures in exploring the dimensions of social support that have been shown to buffer the impact of stress on psychological well being. Based on our previous discussion, we will examine the *direct* and *buffering* role of *perceived, emotional, co-worker* support on the relationship between work quality and psychological well being for adolescents. The present study will add to the youth work literature by testing the following hypotheses (see Figure 1):

Hypothesis 4(a) Perceived Co-worker social support has a positive direct effect on psychological well being

Hypothesis 4(b): Perceived Co-worker social support buffers the impact of poor work quality on psychological well being.

LONG TERM PSYCHOLOGICAL IMPLICATIONS

Thus far we have discussed the relatively short term psychological implications of work for adolescents. As we have seen, poor work quality tends to have negative contemporaneous effects on psychological well being. Yet, some scholars argue that youth work has much longer range implications for psychological well being. There are two main lines of thought regarding the lagged effect of adolescent work experience on psychological outcomes: The "Developmental Readiness Hypothesis" and the "Stress Resistance Hypothesis."[5] Both camps agree with the contention discussed throughout this essay: that when youth work quality is poor, this leads to negative contemporaneous

[5] Similar to our discussion of social support, we will again conceptualize of work quality as "chronic strains" in order to consider the validity of the two competing hypotheses

effects on psychological well being. Where they differ is in their predictions of long term psychological implications from early work experiences.

The Developmental Readiness Hypothesis (Greenberger and Steinberg 1986) posits that youth work has long term detrimental psychological outcomes. Greenberger and Steinberg (1986) argue that poor work quality is often experienced before adolescents have developed adequate coping mechanisms to deal with this situation. Erik Erikson, a leading figure in developmental psychology, argued that adolescents require time for role experimentation, which includes daydreaming and fantasizing about future possible roles. Erickson contended that adolescents who assume adult roles before they are psychologically ready to handle them are likely to stunt this "role experimentation" period and thus limit their identity development (Erikson 1959; 1968).

Proponents of the "Developmental Readiness" hypothesis argue that early work experience constitutes an activity that is likely to interfere with the adolescents' time for role experimentation. Clearly, an adolescent who spends most evenings and weekends working cannot devote adequate time to complex cognitive processes that require time for daydreaming and fantasy. Since early work interferes with *fundamental* processes of the adolescents' successful development into adulthood, Greenberger and colleagues argue that experiencing work before adolescents are developmentally "ready" is likely to have negative long term developmental and psychological consequences. Although this argument is plausible, it largely remains within the theoretical realm, with little empirical research evidence (Greenberger and Steinberg 1986).

Alternatively, the Stress Resistance hypothesis (Shanahan and Mortimer 1996 posits that while early work experiences are initially

detrimental to psychological well being, the long term effect is quite the opposite. Proponents of this perspective draw upon Hans Seyle's biological model of the stress process. Seyle (1976) argues that although biological stressors can in rare cases cause distress, they more often produce "eustress", or an increase in resistance to such stressors. Social scientists applying this model to social phenomena argue that social stressors can similarly result in an increased stress capacity and a strengthening of coping resources (see Shanahan and Mortimer 1996).

Thus, in stark contrast to Erikson's contention that early stressful experiences take adolescents' away from important developmental tasks, proponents of the "Stress Resistance" perspective argue that experiencing early stressful work quality actually constitutes a valuable developmental experience. Shanahan and Mortimer (1996) argue that early stressful work experiences cause adolescents to learn effective coping mechanisms and to begin to deal effectively with poor work quality. Over time, coping tools developed through early work experiences will buffer the negative impact of poor work quality on psychological well being in later jobs. Such successful coping, in turn, leads the adolescent to feel a sense of competency and self-efficacy in the long run.

Although the "Stress Resistance" hypothesis has been demonstrated for biological stressors, research in the psychosocial realm has been sparse. Social stress researchers tend to focus on the negative rather than positive impact of stressors. Although researchers have examined factors that buffer the negative relationship between stress and health (such as coping and social support resources), they tend to ignore the process by which stressors actually mobilize such resources (Shanahan and Mortimer 1996).

Clearly, the stress resistance hypothesis has yet to be explored in future research.

Thus, the Developmental Readiness and the Stress Resistance hypotheses lead to very different conclusions regarding the long term psychological implications of early work experience. As we have seen, research on work quality and psychological well being in adolescence is still in its infancy stages. The majority of studies only address the early adolescent period and are cross-sectional in nature. As a result, the lagged effects of youth work on psychological outcomes have rarely been explored. Yet, this remains a crucial issue to explore when considering the full implications of youth work. Although the present study can only address this issue in a preliminary manner, I will test the two competing hypotheses:

HYPOTHESIS 5(a): Previous poor work quality (i.e. noxious conditions, work/school conflict, low autonomy and low complexity) negatively impacts upon later psychological well being (while controlling for current work quality and social support)

HYPOTHESIS 5(b) Previous poor work quality (i.e. noxious conditions, work/school conflict, low autonomy and low complexity) positively impacts upon later psychological well being (while controlling for current work quality and social support)

IMPORTANCE OF THE PRESENT STUDY

Before turning to the methodology employed, I would like to say a word about the significance of the present study and what I hope to add to the existing literature on youth work. First, the present study will contribute to two

general literatures. One, this study will add to the general literature on the relationship between work and psychological well being by clarifying this relationship within a particular age group (adolescence). Second, this study will contribute to the adolescent development literature by exploring a largely neglected socialization context (work) on adolescent development and psychological well being.

More specifically, the present study has a number of important objectives. First, this study will attempt to bridge the gap between research on early adolescence and adulthood by examining the largely neglected period of late adolescence. This will allow an examination of the continuous effects of work quality on adolescent development as individuals make the transition into adulthood. Second, the present study will also allow a preliminary analysis of the long term effects of early work experiences on the psychological well being of late adolescents. Lastly, we will add to the existing literature by exploring under what circumstances youth work quality impact upon psychological well being. Specifically, we will examine the potentially mitigating factor of co-worker social support in the relationship between work quality and psychological outcomes.

In addition to making a contribution to academic literatures, the current study has many important practical implications as well. As parents and policy makers, it is important to protect the psychological well being of adolescents and to ensure their healthy development and transition into adulthood. Since having a part-time job during adolescence has become almost normative, it is crucial to monitor its impacts upon today's youth.

Youth workers provide a source of cheap and temporary labor that is necessary in a service economy. Since employers have a vested

interest in attaining the maximum monetary benefit from young workers, we cannot rely on employers themselves to monitor poor work quality[6] (Greenberger and Steinberg 1986). Rather, parents, policy makers, and youth workers themselves need to be aware of which specific aspects of job quality are most important for adolescents' psychological well being (present and future). This information can be used in a number of ways to improve the lives of adolescents...

First, parents can monitor their childrens' jobs to a certain extent. For instance, parents can ask their child to explain in detail the aspects of poor work quality that s/he faces. When parents are aware of which specific job experiences are psychologically harmful, they can warn and encourage their children to take note of poor work quality and to search for jobs containing relatively few of such conditions. We also need to explore factors that may buffer the negative impact of poor work quality on psychological outcomes so that we can provide adolescents with these resources. Furthermore, an awareness of poor work quality may cause parents to encourage their children to seek alternative activities to work, such as extra-curricular and volunteer activities. In contrast to employers of paid employment, the leaders of extra-curricular activities are not likely to have a vested interest in exploiting young workers, and thus are more likely to provide positive work experiences.

Information on the psychological impact of work quality can also aid policy maker's efforts in improving the lives of young workers. First, child labor laws currently only restrict hours of work and use of hazardous equipment for young adolescents. Suppose that the present study finds that these and other work conditions have a negative

[6] See earlier discussion on "History of Youth Work"

psychological impact for older adolescents. Such information could be used as impetus for new laws protecting older adolescents and including a wider range of restricted work conditions. Furthermore, information on the negative psychological impact of work quality could be used by policy makers and school administrators as impetus for developing more alternative activities for adolescents that contain positive work experiences.

Certainly, awareness of poor work quality is only a first step in changing the lives of young workers. Yet, the information gained from the present study (as well as other studies on youth work) can be used as a tool by parents, policy makers and school administrators to improve working conditions for adolescents. Given the importance of the present study for the psychological well being of adolescents, upon learning the results, we will spend considerable time discussing not only theoretical, but also the practical implications of such findings.

CHAPTER 2:

METHOD

SAMPLE

As we have seen, the period of late adolescence has been neglected in research on work and well being. Thus, the present study samples a group of individuals in the period of late adolescence; undergraduate students. We distributed closed-ended surveys to 602 undergraduate students in Michigan State University courses during Spring and Summer semesters 1997. With permission from the instructor, the investigator visited four Sociology classrooms. After explaining to students the nature of the study and that their participation was completely voluntary, questionnaires were handed out to all willing students and returned by the end of the class period.

Although the initial questionnaires included students of all ages, we decided to include in our analyses only those students between the ages of 18 and 23. It is reasonable to assume that students in this age group attended college right out of high school. Since the average time for completion of a Bachelors degree is 4-5 years, we surmised that students over the age of 23, are likely to be returning or non-traditional students with previous full-time work experience. The goal of the present study is to assess the part-time work experiences of an older adolescent sample. Since we defined "late adolescence" previously as a semi-autonomous stage of life (prolonged adolescence), young adults with previous full-time work experience would fit into an adult, rather than an adolescent life cycle category. Furthermore, even if non-traditional students presently have a part-time job, their impressions of work quality will be biased by their previous full-time work experiences. For

these reasons, we chose to exclude any students over 23 years of age.

All students were given the opportunity to include their name and phone number for future research. Of the questionnaires that contained contact information, we selected those that contained complete information regarding work experience. We randomly telephoned these students, explaining our wish to conduct a follow-up interview based on their questionnaire. Ten qualitative interviews were conducted in summer 1997, investigating in more detail the closed ended questions on the survey (see methods section for more detail).

The present study's use of a college student sample may remind readers of the tendency in social science research to use "college sophomore" samples of convenience and the debate regarding the validity and generalization of such samples. I would like to defend its use, however, in the present study. First, we are specifically interested in the life cycle period of late adolescence. Recall from our previous discussion that we consider college students to be in this stage of late adolescence since they are semi-autonomous. In contrast to individuals who become full-time workers right out of high school, college students are in a prolonged stage of adolescence since they are neither fully independent or dependent (see p. 11). As a result, our use of a college student sample is highly desirable since we wish to understand those in this semi-autonomous stage of life (transition to adulthood), and only wish to generalize to this particular population[7]

[7] We will discuss limitations of our sample in the Discussion Section

SURVEY METHODOLOGY

Before discussing the specific measures used in the present study, let us consider why survey methodology is appropriate for the questions posed in this study. First, it is important to consider the scope of our independent variable (work quality) when deciding upon a suitable methodology. Consider that an individual cannot fully experience work quality in a day or even in several days, but rather must come to know the work environment over time. For instance, after my first week as a graduate student at Michigan State, I was not able to fully evaluate how much work autonomy I would have nor the noxious conditions I would experience throughout the term. Furthermore, the experience of work takes time to impact upon psychological well being. For instance, the time pressures involved in being a graduate student may take a year or more to begin to affect distress levels. Thus, the context of work and its impact on psychological well being only becomes knowable over a period of time.

As a result, it is important to measure the variable of work after one has experienced a job for a reasonable amount of time. Thus, an experiment, for example, would not be suitable because it could only simulate the conditions of work in a lab environment perhaps in an hour time period. However close to "real life" these contrived conditions may be, they cannot simulate the effects of being exposed to such conditions for many hours per week over a long period of time. A survey, in contrast, can ask respondents about their previous and current work experiences as well as their psychological well being. Thus, a survey can capture the long term nature of the job and its subsequent impact on psychological outcomes.

Another important issue to consider is whether a quantitative or a qualitative study is more suitable for my research questions. First, although the present study is exploratory in the sense of looking at adolescence, the nature of the relationship between work quality and psychological well being has been fairly well established in the adult literatures. Such studies have generally employed survey methodology in exploring these relationships. Since the present study seeks to compare my results to the general literature on work and psychological well being, it is important to employ a similar methodology.

At the same time, however, my study is exploratory in the sense of examining work and psychological well being for adolescents, a neglected life stage in this literature. Since the experience of work and psychological well being may be different for adolescents than for adults, it is also important to provide some context to the tried and true quantitative measures in the adult literature. As a result, I also employ some qualitative interviews in order to provide richness and texture to my data as well as to fully explore any differences in my variables for this unique life stage[8]

MEASURES

The data presented in Table 1 show the means, standard deviations, ranges and alphas for the instruments used in analyses. All measures used in this study had satisfactory reliabilities (Cronbach alpha ranged from .712 to .870).

[8] Qualitative interviews will be discussed in more detail in the measures section

Table 1. Means and Standard Deviations for all Variables in Analysis

Scale / Variable	Mean[a]	S.D.	Range	Alpha	# items in scale
Autonomy T1	16.077	4.948	5 – 25	.837	5
Autonomy T2	18.704	4.985	5 – 25	.971	5
Challenge T1	10.626	3.905	4 – 20	.755	4
Challenge T2	12.300	4.446	4 - 20	.824	4
Work/School Conflict T1	5.045	2.479	3 - 15	.758	3
Work/School Conflict T2	6.225	3.218	3 - 15	.826	3
Noxious Conditions T1	9.796	3.777	4 - 20	.768	4
Noxious Conditions T2	9.186	3.589	4 - 20	.712	4
Co-Worker Support T2	7.721	2.790	3 - 12	.870	3
Depression T2	34.040	6.431	18 - 57	.787	14
Race (W=1)	.752	.432			
Family SES	7.359	2.487			
Sex (F=1)	.684	.465			
Age	20.080	1.965			

[a] Proportions are reported for dichotomous items

Recall Accuracy of Work Quality

Respondents are asked to provide information regarding their first high school job held for at least 6 months, as well as current job, if applicable. Although this study is cross-sectional, respondents are asked retrospectively about their previous work experience. Before discussing the specific work measures used, it is important to raise the issue of whether respondents' recall of their previous work experience is accurate.

Beginning with Bartlett's classic 1932 work, researchers have proposed that the process of remembering is not a passive retrieval of stored information, but rather involves an active reconstructive process. Research evidence indicates that when people are asked to recall previous events that they tend to search their memories selectively and reinterpret past events (Berger 1963; Taylor and Crocker 1981). Furthermore, people tend to use the present as a benchmark against which

to compare past events. Thus, the construction of the past is largely determined by how different or similar the respondent feels the past is from the present (Ross 1989; Ross and McFarland 1988). People are not always accurate, however, in their comparisons of past and present. Research evidence indicates that people tend to exaggerate both the consistency and/or the difference between past and present events (Bem and McConnell 1970; Conway and Ross 1984).

Despite the difficulties with recalling information, there is evidence that retrospective reports can, in fact, be adequate indicators of past behaviors. First, recall is improved when the study asks specific, rather than more general questions. Maisto et al. (1982) found that asking alcohol abusers the number of days spent in jail for alcohol related offenses led to better recall than more general questions on drinking patterns. Second, asking objective rather than subjective questions is related to improved recall. Finney (1981) found that objective questions about health status such as number of hospitalizations produced better recall than asking respondents to recall their previous health status on a scale from poor to excellent. Thus, these studies demonstrate that moderate to high recall is possible when retrospective questions are both specific and objective.

The present study attempts to employ such techniques for improving recall. First, we began by asking the respondent a number of *specific and objective* questions regarding their previous work experience. We asked the respondents' age when they began their first job, the title of the job, the number of hours worked per week, and the amount of time the respondent stayed at the job. Answers to such questions are likely to be accurate since they are specific and leave little room

for interpretation. . Thus, through asking specific and objective questions, we expect a relatively high recall of respondents' past work attributes.

Asking these preliminary questions is important in terms of our subsequent questions on work quality (as we will discuss in a moment). Although these are more subjective questions, we are confident that the respondents' recall will be relatively accurate for two reasons. One, we ask respondents' about *one* specific job, rather than about all past job experiences. This allows the respondent to begin thinking concretely about a particular job experience. For instance, instead of attempting to recall past work as a lump sum, the respondent will begin to picture a specific place where he/she worked, the activities performed, and the relationships with particular supervisors and co-workers. This will aid the respondent greatly in remembering the degree to which he/she experienced work autonomy or noxious work conditions, etc. Second, we ask about previous work experience before asking about the respondents' current job. In this way, the respondent is less likely to use the current job as a benchmark with which to compare to the previous job experience. Thus, through the use of preliminary questions on one specific job, we expect the respondent to be in an excellent frame of mind to recall this job accurately. We are confident that respondents' recall of past work experiences will be an adequate measure.

Measures of Work Quality

Let us now turn to the actual work measures used for both past and present work experiences. See Appendixes A for a complete listing of measures. As discussed previously, there is a large adult literature on work

quality and psychological well being. As a result, there are many well established measures that have been used successfully in the past and have been shown to have high reliability and validity. Researchers studying adolescent work quality (most notably Mortimer and colleagues) have modified many of these measures slightly for use with an adolescent population. The present study uses similar measures in order to compare our results to those of other researchers studying youth work.

Two of our work quality measures are exact replicas of ones used by Mortimer and colleagues in studies of adolescent workers. In terms of *noxious work conditions*, respondents indicate on a 5-point scale from "never" to "almost always" the extent to which their job includes excessive heat/cold, noise, dirtiness, physical exertion and time pressure. Examples of questions include "How often was there time pressure on your job" and "How often were you exposed to excessive heat, cold or noise at work." Items were summed, such that higher scores indicate more noxious work conditions (see Appendix A).

Perceived Work/school conflict is measured by asking respondents on a 5-point scale from "strongly disagree" to "strongly agree" the extent to which they feel there is contradiction between work and school roles, such as being tired in class and not having adequate time to complete homework tasks because of work hours. Questions include "Because of my job, I come to school tired", "Because of my job I tend to skip class" and "Because of my job, I come to class unprepared." Items were summed, such that higher scores indicate greater perceived work/school conflict.

Mortimer and others have demonstrated the above measures to be highly reliable when used in adolescent samples (e.g. Shanahan et al.

1991). The present study uses these measures unaltered in its quest to replicate Mortimer's studies with an older adolescent sample. Such instruments, however, are not without their limitations. First, measures examine perceived rather than actual work quality. For instance, we cannot be certain that one individual's perception of "excessive heat" is the same as anothers' perception. Still, I contend that such differences are a matter of degree rather than kind. For instance, a fast food worker often cooks over a very hot grill. Although one cook may say the heat is excessive "some of the time", whereas another says "all of the time", most cooks would agree the conditions are uncomfortable to a certain extent. This is because noxious work conditions (particularly those related to body comfort) are a universally human experience.

The question of perceived vs. actual work quality is particularly relevant for work/school conflict. In our measure, respondents are asked to indicate whether work responsibilities are to blame for being unprepared or tired in school. Although such measures are helpful in determining perceived work/school conflict, they may be inadequate in discerning actual work/school conflict. For instance, an individual who is doing poorly in school may use work as a convenient scapegoat, even if there is little real contradiction between work and school demands. Likewise, an individual experiencing high levels of conflict between work and school may deny that a conflict exists if s/he must work for his/her livelihood. Thus, measures of perceived work/school conflict may not fully capture actual conflicts between work and school demands.

Despite the above limitations, the present study will follow the lead of previous research in measuring perceived work/school conflict and noxious work conditions. Recall that our aim is to reevaluate the findings of

previous (albeit limited) research on youth work with an older adolescent population. Since research on the psychological implications of youth work is still in its infancy stages, it is important that also replicate the measures used in previous studies. In this way, we will be able to compare our findings on the psychological implications of work quality for college students with the results from previous studies on those of high school age

Having said this, however, we feel that Mortimer and colleagues' studies are inadequate in their measurement of occupational self-direction. First, as discussed previously, studies on adolescent workers (albeit limited) tend to examine only one component of occupational self-direction (*either* work autonomy *or* work complexity). Mortimer and colleagues chose to examine the work autonomy component. Their measure of autonomy, however, is limited in that it contains only two general items asking respondents the extent of control and freedom experienced at work (e.g. Finch et al. 1991; Shanahan et al. 1991). It is questionable whether young adolescents are able to fully assess their work experiences in such a global way.

The present study wishes to fully explore both work autonomy and work complexity. Since studies on adolescent workers appear to be inadequate in this end, and because our sample contains those making a transition to adulthood, we turn to adult literatures in attaining complete measures of these constructs. Specifically, we draw upon scales of autonomy and complexity that have shown to be highly reliable when used with adults (e.g. Greenberg and Gunberg 1995). We modify these scales slightly to be relevant to an older adolescent sample. Although there is no research to date indicating the reliability of such scales for an older adolescent

sample, we use the following measures because of our strong contention that studies on early adolescent samples are inadequate for our goals.

For *work autonomy*, respondents indicate on a 5-point scale from "strongly disagree" to "strongly agree" the extent to which they feel they can make decisions at work, control their use of time, and are supervised closely by a boss (five questions total). Examples of questions include "I had the freedom to decide what to do on my job", "My supervisor leaves me alone unless I ask for help" and "I have the freedom to decide what to do on my job." Items were summed, with higher scores indicating higher levels of work autonomy.

For *work complexity*, respondents indicate on a 5-point scale from "very little" to "very much" the extent to which they feel there is challenge and variety at their job (two questions). Respondents also indicate on a 5-point scale from "strongly disagree to "strongly agree" the extent to which they feel their job requires initial training and/or prior skills and abilities (two questions). Examples of questions include "My job was so simple that virtually anybody could handle it with little or no initial training" and "On my job, I seldom get the chance to use my special skills and abilities", and "How much variety is there in your job." Responses from negatively worded items were inverted, and then all scores were summed such that higher scores indicate greater levels of work complexity.

Psychological Measures

As discussed in the literature review, the majority of research on work quality (for both adolescents and adults) have used two psychological outcome measures: self-efficacy and psychological distress. In order to

compare our study to previous work, we will follow suit in examining both of these psychological outcomes. We chose to use widely used scales that have been shown to be highly reliable and valid in past studies on psychological well being. See Appendix B for a complete listing.

Self-efficacy will be measured with the well known mastery index (Pearlin 1981) which asks respondents to answer on a 4-point scale the extent to which they feel in control of their world. Respondents rate how strongly they agree or disagree with statements such as "There is no way I can solve the problems I have" and "I can do just about anything I set my mind to (see Appendix B).

Psychological distress is measured with the Center for Epidemiological Studies Scale (CES-D) which asks respondents on a 5-point scale how they have felt during the past week. Examples of questions include "I felt that everything I did was an effort", "People were unfriendly" and "I felt sad." This scale has been shown to be highly reliable and valid in past research (Radloff 1977).

Social Support

As discussed, the present study sought to measure one specific type of social support; that received from co-workers. While many social support measures examine only support from family and friends, the "Provisions of Social Relations Scale" (Turner 1983) divides social support into many areas, including co-worker support. The present study uses a shortened version of this scale (see Appendix C). Respondents were asked to indicate on a 4-point scale the amount of support received from co-workers. Questions include "I have people at work who always take the time to talk over my problems if I want to", "I often feel really appreciated by the people

I work with" and "I feel close to people at work." Items were summed such that higher scores indicate greater perceived co-worker support. Satisfactory reliability and construct validity for this scale has been established (Turner 1983). Furthermore, we asked respondents whether the co-workers at their job were primarily other students (peers) or non-students.

Sociodemographic Variables

The sociodemographic variables in this study are race, gender, family income and age (see Table 1 for means and standard deviations). Gender and race were dummy coded such that female=1 and white=1 respectively. In this sample, 75.2% were white and 68.4% were female. Age was coded in years (mean=20.080). Income in family of origin was coded on a 10-point scale from "Under $10,000" to "$90,000 and above" (mean=$60,000-$69,999).

QUALITATIVE INTERVIEWS

The qualitative interviews consist of more in-depth questions regarding all of the work quality variables (autonomy, complexity, noxious conditions and work/school conflict). A supervised undergraduate student[9] conducted the interviews as part of her requirements for the S.R.O.P. program at Michigan State University[10]. I had numerous meetings with this student before she began interviewing in order to describe the research project's goals and the purpose of the qualitative interviews. We also discussed her

[9] Lana Hamilton

[10] S.R.O.P. (Summer Research Opportunity Program) allows minority and first-generation college students the opportunity to participate in scholarly research with a faculty member and provides assistance and guidance in graduate school preparation.

methods of interviewing after she had conducted a few of them, particularly with regards to probing respondents for all of the necessary information.

Respondent names were chosen from the completed questionnaires (described earlier). At the end of the survey, respondents were offered a space to write their name and phone number if they wished to participate in future studies. Respondents providing this information were called and asked to participate in a more in-depth interview. Respondents were then interviewed at a neutral location (e.g. student union) during normal business hours. All respondents for this portion of the study read a consent form which described the questions we would ask, and signed the form granting permission for us to interview them.

The interviewer asked respondents to elaborate on their experiences at work; how various indicators of work quality made them feel, and how important it was to them for such conditions to be altered. For instance, suppose a respondent we will call "Sue" indicates on the survey that she experiences low levels of control at her job as a fast food worker. The interviewer would ask her to elaborate on her experiences at work; i.e. what specific experiences made Sue feel that she does not have control at work? Was it the work itself? Was it her interactions with her supervisors? Sue is also asked whether having job autonomy is important to her, and how it makes her feel when she is not in control at work. This question is meant to tap into the impact of work on psychological well being from the individual's perspective. Such questions are repeated for each measure of work quality. The interviewer also inquired about co-worker social support by asking Sue whether she feels close to people at work and whether that makes a difference in her work experiences.

It is important to keep in mind that the qualitative interviews are not meant as the bulk of the study, but rather serve as context for the quantitative data. We hope to elaborate on some of the issues raised in the survey by making an attempt to understand work conditions in the words and eyes of the respondent.

HUMAN SUBJECTS

This project has been approved by the Human Subjects Review Board (UCRIHS) at Michigan State University. Subjects were approached in various undergraduate classrooms and asked for their participation in a project. Before giving students the surveys, I briefly outlined that the purpose of the project was to learn more about work, family and well being. I stressed numerous times that participation was completely voluntary, that respondents could withdraw from the study at any time and without any specific reason. Furthermore, I assured potential respondents that their responses would be kept completely confidential and that results would be presented as grouped data. I then passed out surveys to those students who indicated a desire to participate. The first page of each survey reiterated my oral comments concerning the voluntary nature of the project and the confidentiality of responses. For respondents who also participated in the later interviews, we required that they read and sign a standard consent form outlining again the above conditions of the study. Thus, to the best of my ability, I feel that subject's rights were protected.

As with any project, however, there are potential risks to subjects. In the present study, respondents were asked personal questions regarding their psychological well being and work experiences. It is possible that

answering such questions could have brought up painful memories of psychological issues or difficulties at work. On the other hand, for some respondents, discussing negative job conditions or psychological issues may have actually been a positive experience. Adolescents are rarely asked about job conditions or how work experiences makes them feel. Thus, for some respondents, answering such questions may have provided an important psychological outlet.

Furthermore, the present study has important benefits for respondents and for adolescents as a whole. As discussed previously, attaining a fuller understanding of the implications of youth work is an important first step in changing poor work quality. We must understand the mechanisms by which work affects well being and explore factors that may buffer such impacts. Since this study's findings can be used to improve the situation of youth workers (including respondents in the study), I would argue that the benefits of participation far outweigh the costs.

CHAPTER 3:

RESULTS

REGRESSION ASSUMPTIONS

Our analysis strategy involves additive and interactive regression models to test our hypotheses. Before embarking upon multiple regression, however, we must first determine whether the assumptions of regression are valid in our data. We first tested for normality and homoscedasticity of residuals for each dependent variable (depression and self-efficacy). For each dependent variable, we developed a full model including all independent variables that would be used in any/all of the following analyses as predictors.

For both depression and self-efficacy, results indicated that the residuals were normal and homoscedastic. In the case of depression, only one case was more than 3 standard deviations from the mean (case=3.5) and the maximum Cook's D was <1 (max Cook's D = .067). Furthermore, the skew of the residual and the original variable of depression were identical (.34), which was well within the limits of acceptability. For the self-efficacy scale, there was only one outlier (case= -3.38), the maximum Cook's D was <1 (max Cook's D= .074), and the skew of the residual (skew= -.41) and the original variable (-.51) were similar and well within the acceptable range for normality.

Next, we tested for homoscedasticity of residuals. We performed an ANOVA comparing the standardized residual (for depression or self-efficacy) by three equal groups of the standardized predictors (of the full model). The Levene's test revealed non-significance for both depression and self-efficacy,

indicating that the variances were equal in the population. Thus, we have confirmed that the regression assumptions of homoscedasticity and normality of residuals are not violated in our data.

Our next step was to test for the regression assumption of linearity. We first divided each independent variable into three equal groups. Next, we performed a series of ANOVAs, examining depression or self-efficacy by levels of each independent variable. We examined the sum of squares for linearity and deviation from linearity and their significance levels. Results indicated that none of the independent variables had any significant deviation from linearity. This indicates that any results that we find in our subsequent models will be of a linear nature. Thus, all of the regression assumptions have been met in our data.

Lastly, for all models used subsequently, we tested for multi-collinearity of our independent variables. We examined the Variance Inflation Factor (VIF) for all predictors in the model. The general rule of thumb was that any VIFs >3 were cause for concern. In these cases, we mean corrected the independent variable by subtracting the mean from all values of the predictor. When an interaction term had an unacceptably high VIF level, we mean corrected for each variable that made up the interaction term, and then re-created the interaction. In all cases, mean correcting brought the VIFs to an acceptable level (usually <2).

EMPLOYMENT STATUS AND WORK HOURS

The primary objective of the present study was to explore the psychological implications of work conditions for youth workers. Before exploring this central question, however, we wanted to take a snapshot of the

characteristics of our sample in terms of employment rates and average number of hours worked per week. Table 2 displays job characteristics for respondents' current job as well as job held for 6 months or more during high school (if applicable). Similar to previous estimates, the majority of our respondents had a job during high school (70.9%) as well as currently (55.8%). For those who are/were employed, the average number of hours worked per week was 15.6 hours/week during high school and 16.1 hours/week at current job (college).

It is interesting to note some significant demographic differences in employment rates and work hours (see Table 2). We performed the appropriate statistical significance test (t-test or ANOVA) on each sociodemographic comparison (race, gender, income and grade) for high school and college employment and work hours.

Consistent with previous research (Fordham 1996; Giordano 1993), our study finds that during high school, minorities are less likely to work than whites (58.4% vs. 75.1%) ($t= -3.93$; $p<.001$), whereas in college, there is no significant difference in rates of employment. Furthermore, we find that adolescents from wealthy families, males and younger students are significantly less likely to be employed in college than their low/middle income ($F= 14.984$; $p<.001$), female ($t= -2.65$; $p<.01$), and older student ($t= -2.59$; $p<.01$) counterparts. In terms of work hours, the only significant difference is that on average, juniors/seniors in college work more hours (mean=19.1 hours/week) than their Freshman/Sophomore counterparts (mean=13.7 hours/week) ($t= -5.21$; $p<.001$).

We also performed regression analyses to confirm the above findings. First, we examined two regression equations predicting employment status (for first job and then for current job) by all demographic variables. Results

are generally consistent with our previous findings. Specifically, during high school, minorities are less likely to work than whites (B=.167; p<.001) and during college, males (B=.108; p<.05) higher SES students (B=-.046; p<.001), and younger students (B=.018; p<.10) are less likely to work than their respective counterparts.

Next, we regressed work hours (for first job and then for current job) on all demographic variables. We were concerned that perhaps the type of job might influence the number of hours worked. Thus, we controlled for all work quality variables (autonomy, complexity, work/school conflict, and noxious conditions) in each regression equation. Results are consistent with our previous findings (from t-tests and ANOVAs) indicating that only one demographic variable (age for college students) significantly predicted work hours. Specifically, older college students tend to work more hours per/week than their younger counterparts (B=1.420; p<.001).

Table 2. Job Characteristics of Sample[a]

		Employed		Hours Worked			
		High School	Current	High School		Current	
				Mean	St. dev.	Mean	St. dev.
Race	White	75.1	59.5	15.386	6.776	16.218	10.028
	Non-white	58.4***	61.6	16.396	8.232	15.680	8.237
Sex	Male	69.9	51.5	15.600	7.208	16.852	9.031
	Female	72.4	63.4**	15.684	7.104	15.811	9.738
Family Income	Under $10-39,999	68.4	75.7	15.746	7.228	16.625	6.601
	$40-79,999	74.7	65.1	16.397	6.975	16.956	8.898
	$80+	69.1	48.8***	14.594	7.210	14.698	9.555
Grade	Before High School	7.5		13.791	11.999		
	Fresh / Sophomore	35.0	55.6	15.903	6.530	13.714	7.679
	Junior / Senior	28.4	66.5**	15.695	6.105	19.163***	11.077
	Total	70.9	55.8	15.612	7.130	16.095	9.637
	N	602	560	426		327	

* $p < .05$ ** $p<.01$ *** $p<.001$

[a]t-test or ANOVA preformed for each comparison

PSYCHOLOGICAL CONSEQUENCES OF WORK QUALITY

Given our hypotheses, we now turn our attention to those in our sample who are currently working at part-time jobs. We wish to explore the impact of work quality on adolescents' psychological well-being. We hypothesized that measures of work quality such as noxious work conditions, low autonomy and complexity and work/school conflict would decrease self-efficacy and increase psychological distress.

The first step in testing the impact of work quality on subsequent psychological well-being was to regress depression and self-efficacy on various work conditions. Table 3 presents the results of two additive models predicting psychological distress by measures of work quality, controlling for sociodemographic variables. As shown in the first model for psychological distress, three out of the four work conditions significantly predict depression. Specifically, complexity (B= -.199; $p<.05$) decreases psychological distress while work/school conflict (B= .294; $p<.05$) and noxious work conditions (B= .492; $p<.001$) increase psychological distress.

Thus, adolescents who feel they perform simple, repetitive tasks at work or who are exposed to extremely hot, cold or dangerous conditions at work are more likely to suffer from psychological distress and reduced self-efficacy. Furthermore, adolescents who perceive high levels of contradiction between their school and work roles are more likely to suffer adverse psychological consequences. Interestingly, contrary to our hypothesis, work autonomy has no discernable effect on psychological well-being for the adolescents in our sample. Thus, the degree to which adolescents have decision making control over how they perform their job appears to

have no ill psychological effect. Still, there is considerable overall support for our hypotheses that as work quality becomes increasingly noxious, there are negative psychological consequences for adolescents.

Table 3. Regression of Work Quality Predicting Psychological Distress[a]

Work Quality		1		2
Complexity	-.199	(-.139)*	-.030	(-.021)
Autonomy	.122	(.096)	.046	(.036)
Work / School Conflict	.294	(.151)*	.253	(.130)*
Noxious Conditions	.429	(.275)***	.201	(.112)
Race (W=1)	.320	(.021)	.268	(.017)
Sex (F=1)	1.389	(.098)	1.476	(.105)*
Family SES	-.143	(-.058)	-.048	(-.019)
Age	.036	(.036)	.103	(.033)
Self-Efficacy			-1.090	(-.492)***
Constant	26.317		48.350	
R^2	.142		.348	
N	269		267	

[a]Standardized follow Unstandardized coefficients in parentheses
*p <.05 ** p < .01 *** p < .001

In Hypotheses 3b and 3c, we speculated that the positive relationship between work autonomy and work complexity and psychological well-being would be mediated by self-efficacy. The first step in testing these hypotheses was to examine the impact of complexity and autonomy on self-efficacy. Table 4 displays the results of an additive model regressing self-efficacy on work quality.

As shown, complexity (B= .149; p<.001) has a significant positive impact on self-efficacy. Thus, as the complexity of work tasks increase, the adolescent experiences higher levels of self-efficacy. Furthermore, although not hypothesized, note that work stressors have a highly significant negative impact on self-efficacy (B= -.267; p<.001). Thus, as adolescents are exposed to excessive levels of

heat, cold or noise, their sense of control decreases significantly. In contrast, work autonomy does not significantly predict self-efficacy as hypothesized. Mirroring the results for psychological well-being, work autonomy appears to be unimportant in terms of psychological consequences.

The next step in testing the mediating effect of self-efficacy was to control for efficacy in the equations predicting psychological distress. If we turn back to Table 3, equation two, we note that self-efficacy has a significant negative impact on depression (B= -1.090; p<.001). As we would expect, as self-efficacy increases, psychological distress decreases. Furthermore, when self-efficacy is in the equation, the relationship between complexity and psychological distress, which was significant in equation one (B= -.199; p<.05) goes to non-significance in equation two. This provides evidence that self-efficacy does, in fact, mediate the relationship between complexity and psychological distress. In other words, as the complexity of adolescent's work tasks increases self-efficacy, which in turn has a positive impact on psychological well-being.

Furthermore, although not hypothesized, self-efficacy appears to mediate the relationship between noxious work conditions and psychological distress. As shown in equation two, noxious work conditions have a significant negative relationship with self-efficacy (B= -.267; p<.001). Furthermore, the relationship between noxious conditions and distress which was highly significant in equation one (B= .492; p<.001) goes to non-significance when controlling for self-efficacy in equation two. Thus, noxious conditions have an indirectly negative impact on psychological well-being through self-efficacy.

Thus, there is considerable support for Hypotheses 1-3 that poor work quality measures such as low complexity, high work/school

conflict, and noxious work conditions have negative consequences for adolescents' psychological well-being. Furthermore, the work quality measures of low complexity and noxious work conditions exert their influence indirectly through decreasing the adolescents' sense of competency (self efficacy) which then leads to psychological distress.

Table 4. Regression of Work Quality Predicting Self-Efficacy[a]

Work Conditions		
Complexity	.149	(.231)***
Autonomy	-.060	(-.104)
Work/School Conflict	-.052	(-.059)
Noxious Conditions	-.267	(-.328)***
Race (W=1)	.113	(.016)
Family SES	.110	(.110)
Sex (F=1)	.007	(.007)
Age	.063	(.063)
Constant	19.908	
R^2	.165	
N	272	

[a]Standardized follow Unstandardized coefficients in parentheses
*p <.05 ** p < .01 *** p < .001

CO-WORKER SOCIAL SUPPORT

Our next question involved the role of co-worker social support in the relationship between work quality and psychological well-being. But first, who are the adolescents' co-workers? The present study found that the majority (67.1%) of employed adolescents work primarily with other college students, whereas only 32.9% work with primarily non-students. We performed a regression analysis to determine whether adolescents felt more social support from peer co-workers than non-peer co-workers. We regressed perceived social support on co-worker type, while controlling for all work quality measures (autonomy, complexity, work/school conflict, and noxious conditions) and demographic variables. Contrary to our predictions, respondents who worked primarily with peers were no more likely than those working with non-peers to perceive social support (B=.007; non-significant).

Our next step in the analysis was to test for main and interactive effects of co-worker social support on psychological distress. We hypothesized that co-worker social support would have a direct positive impact on psychological well-being (Hyp. 4a) as well as buffer the negative impact of work quality on psychological well-being (Hyp. 4b). Table 5 presents the results of an additive and interactive model predicting psychological distress. In equation one, we see that co-worker social support decreases psychological distress (B= -.248; $p<.10$)[11] Thus, adolescents who perceive their co-workers to be supportive are less likely to suffer from psychological distress. This provides support for Hyp. 4a.

[11] albeit this effect only approaches acceptable significance at the .10 level

Next, we tested the hypothesis (4b) that co-worker support mitigates the negative impact of poor work quality on psychological well-being. We created four interaction terms by multiplying co-worker social support by each measure of work quality (noxious conditions, autonomy, complexity and work/school conflict). Only one interaction term significantly predicted psychological distress as indicated in equation two (Table 5). As shown, the interaction of co-worker social support and work complexity predicted psychological distress (B= -.070; p<.05). This means that having a job that includes complex work tasks decreases psychological distress only for those with high levels of co-worker social support. Thus, co-worker social support only has a positive impact on psychological well-being for adolescents who have highly complex jobs. We will discuss the implications of this finding in the discussion section.

Table 5. Regression of Co-Worker Support Predicting Psychological Distress[a]

	1		2	
Complexity	-.164	(-.114)+	-.164	(-.114)+
Autonomy	.155	(.122)+	.153	(.120)+
Work / School Conflict	.292	(.150)*	.299	(.154)*
Noxious Conditions	.499	(.278)***	.486	(.271)***
Race (W=1)	.659	(.042)	.622	(.040)
Family SES	-.141	(-.057)	-.105	(-.042)
Sex (F=1)	1.495	(.106)+	1.501	(.106)+
Age	.057	(.018)	.042	(.013)
Co-Worker Support	-.248	(-.109)+	-.254	(-.111)+
Support * Complexity			-.070	(-.133)*
Constant	24.868		21.417	
R^2	.156		.173	
N	266		265	

[a]Standardized follow Unstandardized coefficients in parentheses
+ p < .10 *p <.05 ** p < .01 *** p < .001

DEMOGRAPHIC DIFFERENCES

Up to this point, we have controlled for sociodemographics while examining the psychological implications of work quality. Next, we will explore demographic differences in work quality and their impact on psychological well-being.

First, we explored whether there were any significant differences based on race, gender, age, SES or prior work experience in the content of work quality. We regressed each measure of work quality (autonomy, complexity, work/school conflict, and noxious conditions) on each demographic variable of interest. There were only two significant demographic differences in work quality. Both socio-economic background (B=.224; $p<.05$) and age of respondent (B=.295; $p<.05$) were positively related to work complexity. Thus, college students from wealthier backgrounds were more likely to be in a job affording challenge and variety. Furthermore, as students move through the college experience, they are more and more likely to experience complexity at work. Overall, however, results indicate that work quality does not vary based on sociodemographic factors. Being black or white, female or male, younger or older, from a rich or poor family background, or one's prior work experience has little discernable impact on the conditions experienced at work.

Although there are few sociodemographic differences in work quality, it may be that the psychological impact of such quality varies on the basis of demographic variables. We performed a series of additive and interactive regression models to test for such differences. We created an interaction term for each measure of work quality multiplied by each demographic variable (race, age, gender, SES, prior work experience). We then regressed psychological distress on each model including one interaction term. In order to rule out the possibility that the type of job

has an impact, we controlled for all aspects of work quality (autonomy, complexity, work/school conflict, and noxious conditions) in each model. Only two interactions significantly predicted adolescents' psychological well-being. As shown in Table 6, the interaction terms of noxious conditions*race and noxious conditions*age significantly predicted psychological distress.

This means that noxious work conditions have a greater negative impact on psychological well-being for particular levels of race and age. Subgroup regression analysis reveals that blacks and younger students are more prone to psychological distress when experiencing noxious work conditions, even when controlling for other aspects of work quality. Thus, even when experiencing comparable levels of uncomfortable work conditions (e.g. excessive heat, cold or noise), blacks are more likely than whites to be psychologically distressed. Similarly, younger adolescents are more susceptible than older adolescents to be psychologically distressed when experiencing noxious work conditions.

Table 6. Demographic Differences in the Impact of Work Quality on Psychological Distress

	1		2	
Complexity	-.203	(-.142)*	-.185	(-.130)*
Autonomy	.137	(.108)	.128	(.101)
Work/School Conflict	.261	(.134)*	.313	(.161)**
Noxious Conditions	.513	(.287)***	.518	(.290)***
Race (W=1)	.272	(.018)	.438	(.028)
Family SES	-.149	(-.060)	-.149	(-.061)
Sex (F=1)	1.340	(.095)	1.308	(.093)
Age	.053	(.017)	-.171	(-.054)
Race * Conditions	-.489	(-.117)*		
Age * Conditions			-.117	(-.128)*
Constant	29.464		29.93	
R^2	.157		.155	
N	268		268	

[a]Standardized follow Unstandardized coefficients in parentheses
*p <.05 ** p < .01 *** p < .001

LONG TERM IMPLICATIONS OF WORK QUALITY

A final goal of the present study was to make a preliminary assessment of the long term psychological implications of work quality. As you may recall, we measured work quality at respondents' current job as well as their first job for 6 mo. or more (if applicable). As a result, we can perform some limited analysis on this retrospective data.

First, we assessed whether work quality changed from time one to time two. We compared the means for each measure of work quality by when the job was held (high school or currently). We performed a t-test to assess the significance of differences. Results indicate that overall, work conditions significantly improve from time one to time two. Specifically, as compared to the first job, adolescents' current job tends to contain higher levels of work autonomy (t= -5.65; p<.001),

complexity (t= -4.90; p<.001) and lower noxious conditions (t= 2.45; p<.01). On the negative side, however, work/school conflict tends to be higher in the second job (-6.45; p<.001).

Thus, work quality tends to be more negative in the first job. As a result, we wished to explore the psychological impact of such conditions on current psychological well-being. Our intention was a preliminary assessment of the long term psychological implications of youth work during early adolescence.

Table 7 presents the results of a regression of T1 work quality (high school job) predicting T2 psychological distress (current). Although the present study was unable to control for T1 psychological distress, we did control for T2 work quality. Only one measure of work quality, noxious work conditions, has a significant long term impact. As shown, noxious work conditions at T1 increase psychological distress at T2 (B=.303; p<.05). Thus adolescents who were exposed to excessively hot cold or noisy conditions at a high school job are more likely to suffer from subsequent psychological distress (during college).

Throughout the present study, noxious work conditions have been a recurring theme in having very important psychological implications. These results indicate that noxious work conditions are harmful for psychological health not only in the short run, but also may have important long range implications. Certainly, this result must be taken with caution as a result of the retrospective nature of the data. Still, the possibility that noxious work conditions have long term psychological implications is an important preliminary finding.

Table 7. Regression of Psychological Distress on T1 Work Quality[a]

		T2 Psych Distress	
T1 Work Conditions	Complexity	-.016	(-.010)
	Autonomy	.093	(.072)
	Work / School Conflict	.358	(.139)
	Noxious Conditions	.303	(.181)*
T2 Work Conditions	Complexity	-.201	(-.140)*
	Autonomy	.071	(.056)
	Work / School Conflict	.117	(.060)
	Noxious Conditions	.406	(.225)**
	Race (W=1)	-.437	(-.027)
	Family SES	-.066	(-.027)
	Sex (F=1)	1.517	(.105)
	Age	-.192	(-.039)
	Constant	27.774	
	R^2	.188	
	N	232	

[a]Standardized follow Unstandardized coefficients in parentheses
*p <.05 ** p < .01 *** p < .001

CHAPTER 4:

DISCUSSION

The present study's objective was to examine the impact of work quality on psychological well being for those in late adolescence. In general, findings indicate that similar to Mortimer's groundbreaking research on young adolescents (as well as studies on adult populations), that poor work quality has a negative psychological impact on older adolescent workers. Our results indicate that three out of four measures of work quality have a significant negative impact on psychological well-being.

In this final section, we will explore the implications of our specific quantitative findings. We will discuss the impact of each measure of work quality on psychological well-being, as well as explain the role of self-efficacy, co-worker support and demographic variables on this relationship. Throughout the discussion, we will include insights from our 10 qualitative interviews. As discussed previously, these interviews are not meant to form the bulk of this study, but rather serve as useful background to our quantitative findings. As such, we will include any useful quotes from such interviews under the relevant discussion section.

NOXIOUS WORK CONDITIONS

We find noxious work conditions to be of extreme importance for adolescents' psychological well being. First, previous research finds that most adolescents work in sales/retail jobs that include noxious conditions (Aronson et al. 1996). Not surprisingly, the majority of adolescents in our sample reported noxious work conditions at their job. For instance, 58.5% felt time pressure at work and

50.7% reported that they were exposed (sometimes or always) to excessive heat, cold or noise. For instance, one respondent explained "In the winter, the store was so cold that I got headaches from cold air and fans being right above my head." Another reported "it was extremely hot; blazing hot sun." and another said "I had to stand the whole time." Thus, noxious work conditions are an uncomfortable reality for many older adolescent workers.

The present study finds that noxious work conditions have a negative impact on psychological well being, providing strong support for our first hypothesis. The more adolescents feel they are exposed to excessive heat, cold, noise or time pressures, the more likely they are to be psychologically distressed. This confirms the results of Shanahan et al. (1991), who explored work conditions in a younger adolescent population. Since we used the same measures of noxious work conditions, we can be confident that noxious work conditions are distressing to older (as well as younger) adolescents. Furthermore, such results are hardly surprising given the long tradition of research indicating the distressing effect of noxious work conditions on adult workers (e.g. House et al. 1986; Kohn and Schooler 1983).

Thus, noxious work conditions have important psychological implications for all age groups, including those in late adolescence. Why is the finding of noxious work conditions as distressing so consistent across age groups? One possibility is that having comfortable working conditions is a basic human requirement for well-being. Maslow's theory of *hierarchical need satisfaction* (1954) posits that human needs are arranged hierarchically such that lower-order needs such as food, shelter and safety must be satisfied before higher-order needs such as friendship,

esteem and self-actualization can be attained. In Maslow's theory, the most alienating jobs are those that do not provide for minimum levels of physiological and safety needs. To be sure, many of the noxious job conditions explored in the present study are part of such basic human needs as constant body temperature, shelter from noise pollution and a reasonable pace of effort expenditure. These conditions are, by their very nature, noxious to humans, no matter their age.

Thus, contrary to conventional wisdom[12], the fact that adolescent jobs are temporary does not protect them from the negative psychological impact of noxious work conditions. Even if the adolescent is aware that exposure to excessive heat/cold, noise or time pressures will likely end once s/he attains a professional job, it is still psychologically distressing to work under these noxious conditions at present. Thus, noxious work conditions are psychologically distressing to adolescents as they are for adults. It is a profoundly "human" distress.

Our conceptualization of noxious conditions as a human distress brings to mind a previous discussion on the arguments of Lazarus and colleagues (see p. 18). Recall that Lazarus contends that events are not inherently stressful, but rather it is the individual who subjectively gives events their meaning. Lazarus (1991) argues that specific to the work context, it is not useful to identify stressors that have a negative impact on most workers because stress is ultimately an individual phenomena. Whether or not a work event will be experienced as psychological distress depends upon the individual subjective assessment, which varies based on individual differences in disposition and life experiences (Lazarus 1991).

[12] see previous discussion on "Salience of Youth Work"

The present study, in contrast, sees noxious work conditions as an objective reality that lead to psychological distress in the majority of workers (regardless of personal disposition or subjective interpretation). As discussed, noxious conditions fall at the bottom of Maslow's hierarchy of needs and thus form a profoundly human distress. As a result, we have seen that the psychological impact of noxious conditions are not likely to vary based on age or the temporary nature of one's job. Likewise, the impact of noxious conditions are unlikely to vary based upon personal disposition or life experiences. It is difficult to imagine, for instance, two workers exposed to an extremely hot furnace, with one defining such conditions as noxious, while the other does not. Instead, being exposed to uncomfortable conditions is a physical reality and profoundly distressing from a human standpoint. Thus, the present study maintains its position that noxious conditions are objective stressors that lead to psychological distress.

Furthemore, our strongest finding in the present study is that noxious conditions are associated with psychological distress. Other measures of work quality, such as work/school conflict and work complexity were also significantly associated with psychological distress, but such results were not quite as statistically strong (see Results section). The present study made every effort to measure all aspects of work quality objectively (see p. 79). Still, noxious conditions are a physical reality, whereas work/school conflict and work complexity are social realities, and thus somewhat more at risk for subjective interpretation.

Lazarus (1991) contends that psychological distress is nothing more than the subjective interpretation of work events. If this were true, then we would expect the less "objective" stressors like work/school conflict and work complexity to have a *greater*

impact on psychological distress (since according to Lazarus, these measures would, in fact, be confounded with psychological distress). But instead, we find that noxious conditions (the more objective stressor) has an even stronger statistical relationship with psychological distress than work/school conflict or work complexity (measures which are more at risk for confounding with psychological distress). This comparison gives us confidence that the present study has not simply measured individual variation in the interpretations of events. Rather, we argue that all our measures of work quality, to the best of our ability, are objectively measured and are separate from psychological distress.

The next question of interest in the present study is...even if noxious work conditions are related to psychological distress, what are the effects of such conditions over the long run? In other words, even if exposure to noxious conditions is contemporaneously harmful, is the adolescent's psychological well-being affected over the long haul? Our study finds that noxious work conditions *do*, in fact, have long term psychological implications. Specifically, we find that noxious work conditions experienced at a high school job have a negative impact on current psychological well-being (even when controlling for current noxious work conditions). Thus, individuals who experience excessive heat/cold, noise or time pressures at work during early adolescence are more at risk for psychological distress in late adolescence.

Certainly, this result must be taken with caution as a result of retrospective data. Still, our results provide some support for the "Developmental Readiness Hypothesis."[13] Recall that Greenberger and Steinberg (1986) argue that noxious work conditions experienced before adolescents have developed adequate coping mechanisms, are likely

[13] See previous discussion on "Long Term Psychological Implications"

to result in detrimental long term psychological outcomes. Since we measured noxious work conditions experienced during a high school job, it is plausible that respondents were not able, at that time of early adolescence, to cope effectively with such noxious conditions (that subsequently increased psychological distress during late adolescence).

In contrast, there is little support for the alternative "Stress Resistance Hypothesis" advocated by Shanahan and Mortimer (1996). Noxious work conditions do not have positive long term psychological implications. Contrary to Mortimer and colleagues predictions, noxious work conditions do not constitute a valuable developmental experience, nor do they appear to mobilize coping resources. Instead, our study indicates that, similar to adults, noxious work conditions have negative contemporaneous as well as long term psychological implications for adolescents.

An important question for future research is why noxious work conditions during early adolescence have long term psychological implications. There are a number of possibilities. First, noxious work conditions may have a direct negative impact on later psychological well-being. This seems unlikely, though, since it is hard to imagine that exposure to excess heat at age fifteen, for instance, would directly cause psychological distress at age twenty.

A more likely possibility is that noxious work conditions cause contemporaneous psychological distress in early adolescence (e.g. Shanahan et al. 1991) which then continues into late adolescence. Adolescence is a crucial time period for the formation of personality (Erickson 1959), identity, and psychological well-being (Dornbusch 1989). Research indicates that depression in adolescence constitutes as important factor adult psychological distress (Fleming and Offord 1990;

Peterson et al. 1993). Since mental health in adolescence has such long term consequences, young adolescents damaged psychologically by noxious work conditions, may be unable to recover psychologically regardless of later positive work experiences. It is crucial to monitor all experiences (including noxious work conditions) that cause psychological distress in early adolescence, since interference with the development of psychological well-being may cause depression in later adolescence and adulthood.

Unfortunately, the present study does not include the variable of depression during early adolescence. As a result, we are unable to test the mediating role of T1 depression in the relationship between T1 noxious work conditions and T2 depression (as described above). Certainly, this is an important task for future longitudinal studies that are able to control for depression during early adolescence. In the meantime, our study provides preliminary support that noxious work conditions are important not only for contemporaneous psychological well-being, but also have long term implications for psychological distress. Noxious work conditions are indeed important for mental health throughout the adolescent life cycle stage.

WORK / SCHOOL CONFLICT

Another aspect of work quality with important psychological implications is the contradiction between work and school roles. We find that the perception of contradictory demands between work and school has a negative impact on psychological well-being. This replicates the results of other studies (albeit of *early* adolescence) that high levels of perceived work/school conflict leads to psychological distress (Finch et al. 1991; Shanahan et al. 1991). Thus, the present study

provides evidence that perceived work/school conflict has important psychological implications not only for young adolescents, but for older adolescents as well.

Interestingly, our qualitative interviews tell a somewhat different story. Those students who perceived contradictions between work and school roles generally did not view this situation as psychologically distressing. Respondents who reported work/school conflict were asked "how does it make you feel when your job interferes with school?" Many respondents seemed to imply that the question itself wasn't relevant. For instance, one respondent replied "I can't do anything about it; I have to work" while another said "It's just the way it is." Other respondents reported that work/school conflict had no psychological impact; as one respondent commented "it doesn't bother me."

One wonders whether work/school conflict truly had no psychological impact on such respondents, or whether they felt the need to justify their work schedules. Since many college students contribute to their tuition or living expenses (Greenberger 1988), these respondents may have been working out of economic necessity. As such, it would be difficult to concede that work/school conflict had any negative psychological ramifications since the only alternative to such conflict was not attending college (which would have even more negative implications). In other words, adolescents may not want to consider potentially damaging psychological implications of work/school conflict when they see little opportunity for such conflict to change.

Keep in mind that the qualitative interviews measured respondents' *perceptions* of the impact of work/school conflict on psychological well-being. In contrast, the quantitative surveys asked questions pertaining to

work/school conflict and psychological distress separately and as such, are probably more accurate in assessing the *actual* impact of work/school conflict (which leads to psychological distress). Still, it is interesting to consider that college students may have a tendency to deny any negative psychological impact of work/school conflict. Such tendencies make it all the more important that we uncover the *actual* psychological implications of contradictory demands between work and school roles.

The present study has done the important work of replicating the results of previous studies with an older adolescent sample. Although we have confirmed that work/school conflict is related to psychological distress for older adolescents, our measure of work/school conflict (taken from previous studies) is not ideal. Recall from our previous discussion that researchers have generally used perceived rather than actual work/school conflict. As a result, we cannot be certain how or even if work and school roles actually contradict for adolescents. We do not yet know what sorts of contradictions between work and school demands are most harmful for psychological well-being. We will introduce a number of worthy pursuits in this regard for future research.

First, work and school roles may contradict in terms of at time dimension. Since daily time is finite, hours spent engaging in work tasks diminish time potentially available for schoolwork. Although studies find little association between work hours and school achievement (Mortimer and Shanahan 1991, 1994), some scholars suggest that adolescents compensate for time lost to work by taking less demanding coursework or decreasing time spent in other pursuits such as extra-curricular activities, leisure, social events, and relaxation (Carr 1996; Greenberger 1988;

Steinberg and Dornbusch 1991). Despite such speculations, no study to date has performed a comprehensive breakdown of adolescents' time use (Mortimer et al. 1996). Yet in order to fully understand work/school conflict in terms of a time dimension, we must explore the exact nature of adolescents' time use in terms of work, school and other activities. This is an important task for future studies.

A second factor that may cause work/school conflict (and its impact on psychological distress) is the timing of work shifts in relation to school activities. The postindustrial economy has seen a substantial increase in service jobs characterized by irregular shifts and temporary labor; work that is particularly well suited to adolescent workers[14]. For instance, since the mid 1950s, the number of part-time employees has increased at an average annual rate of four percent and the number of temporary employees has increased from 20,000 to 629,000 (see Negrey 1990). Contingent employees (including adolescents) are attractive to employers who wish to balance their demand for work and supply of workers as efficiently as possible. Part-time or temporary employees are often required to have a "flexible" schedule, based on the availability of work, rather than on employee availability. This means that employee schedules change from week to week based on employer need (Negrey 1990).

For instance, Ester Reiter performed a fascinating qualitative study on work experiences at one of the largest service industries today: fast food. She worked at a "Burger King" restaurant for 10 mo. in order to explore employee experiences in a generally part-time, contingent environment. First, she discovered that the training manual for new managers at "Burger King" restaurants instructed "Do not schedule to

[14] See previous discussion on "A Brief History of Youth Work"

accommodate employees—schedule to the needs of your restaurant. Schedule on a daily basis using at least hourly increments" (Reiter 1996). These words were put into practice in a number of ways. First, work schedules changed on a weekly basis and were posted only one day prior to the subsequent week to be worked. Second, managers often expected employees to stay later than their scheduled shift. One woman explained "When I start to leave at the scheduled time, they tell me not to because it's too busy." Third, managers often put heavy pressure on employees to work unscheduled shifts when the restaurant is understaffed. For instance, one worker said he was afraid to answer the phone because it was very difficult to refuse the heavy pressure when managers requested he work extra hours. Clearly, "flexibility" was squarely in the hands of the employers.

The timing of work shifts as described above is all too common for adolescent part-time workers. What is the impact of such "flexible" (i.e. unpredictable) schedules on adolescents? One main consequence is difficulty in planning any non-work activities, including school work. Although college students only spend 12-15 hours/week in class, many additional hours must be spent reading, writing papers, and studying for exams. Suppose Mike, a college student, waits on tables at a local restaurant. When he began his job, he wrote down his course schedule, indicating the shifts he was free to work. Although his work schedule changes every week, he is never required to work during his class time. But suppose Mike has an exam coming up two weeks from today. If he only receives his work schedule one week in advance, he cannot count on being able to study the night before the exam. Furthermore, even if he is not scheduled to work that day, he may still be called in last minute to work an unscheduled shift.

Thus, the unpredictability of many part-time work schedules allows no leeway for contingencies in the school schedule. In other words, it is not so much that hours at work detract from hours spent studying, but it is the *timing* of work hours that is crucial in contradicting with school work. If Mike worked the same shifts every week, he would be able to plan his studying around work. But finding out his work schedule at a moment's notice is likely to interfere with the work he must do outside of the classroom. Thus, an important task for future research exploring work/school conflict, is to consider the timing of work hours in relation to school work, and how such contradictory demands impact upon psychological well-being.

A third factor to consider is whether work and school are contradictory in terms of energy levels. Work/school conflict is likely to be of particular concern for those in late adolescence (especially college students) since many are faced with heavy school demands. College courses often demand considerable energy and effort outside of the classroom in order to succeed academically. Thus, when college students work a shift at a physically demanding job, do they have energy left over to do their homework assignments? Recall from our previous discussion[15] that school requirements involve more class time for high school students and more homework time for college students. Since homework generally demands higher energy levels, we suggested that work/school conflict would increase from high school to college. And respondents in our study did, in fact, report significantly higher perceived work/school conflict in college than in high school. Of course, we cannot be certain that energy level is the root cause of this increase

[15] See previous discussion on "Role Conflict"

in work/school conflict. Future research is needed that specifically asks respondents if and when they feel drained from working and/or studying and how these interact.

In sum, the present study adds to the literature in its finding that perceived work/school conflict negatively impacts psychological well-being for older adolescents. The next step is to explore more specifically how work and school demands actually contradict. We have suggested three avenues for future research including a comprehensive breakdown of time use, the timing of work shifts, and energy levels[16] The first two avenues are more objective in the sense that respondents merely need to answer how they spend their time or how their work scheduling operates, and the researcher can compare the psychological implications of various breakdowns of time use and/or work schedules. The avenue of energy levels is more subjective, since one must ask respondents whether they are tired from work or school activities. Still, the nature of the questions is much more specific than simply asking whether respondents perceive work/school conflict. Given the specificity of these three avenues, they are likely to reveal actual, rather than perceived work/school conflict. More importantly, exploring the specific ways in which work and school roles contradict will allow a fuller understanding of why work/school conflict causes psychological distress in adolescents.

OCCUPATIONAL SELF DIRECTION

Another aspect of work quality is occupational self-direction (or alienated labor) which refers to the extent to which workers have control over their labor and utilize their skills and capacities on the job. As discussed previously, research on adolescent part-

[16] Certainly, this is not an exhaustive list, but rather serves as a beginning impetus for future research.

time workers (including the present study) examine two aspects of occupational self-direction: work complexity and work autonomy. Since most adolescents work in retail and service jobs that afford few opportunities for work autonomy and/or complexity (e.g. Greenberger and Steinberg 1981; Greenberger et al. 1982), do these conditions have a negative impact on psychological well-being?

Work Complexity

In terms of work complexity, we find support for Hypothesis 3a. Specifically, low work complexity is negatively related to adolescents' psychological well-being. Specifically, when adolescents feel work tasks are repetitive and do not allow the use of skills and abilities, they are at risk for experiencing psychological distress. These results replicate the findings from previous studies on young adolescents (e.g. Schulenberg and Bachman) and adults (e.g. Kohn and Schooler 1983). Thus, work tasks that are varied and require skill and creativity have positive psychological implications throughout the adolescent (as well as adult) life cycle stages.

Next, the present study took a step beyond previous research on adolescent part-time workers by exploring the role of self-efficacy in the relationship between work complexity and psychological distress. Based on previous research on adults (Kohn and Schooler 1983; Kohn et al. 1990), we hypothesized that work complexity is indirectly related to psychological well-being through self-efficacy. Indeed, we find support for Hypothesis 3c, such that that self-efficacy mediates the negative relationship between low work complexity and psychological distress. Specifically, an adolescent whose work tasks are repetitive and do not require particular

skills/abilities tends to experience a decrease in his/her assessment of personal competency or effectiveness. This lowering of self-efficacy, in turn, leads to psychological distress.

It is interesting that repetitive work tasks that do not allow adolescents to use their skills and abilities lead to feelings of low competency or self-efficacy in their everyday life. This provides support for Kohn's generalization theory which states that individuals learn or generalize the "lessons of the job to outside-the-job realities (Kohn 1981: p. 290). In other words, similar to adults, when adolescents are not treated as if they were competent at work, they begin to feel less competent in general. This finding flies in the face of the conventional wisdom that since youth work is temporary, adolescents are able to distance themselves from the worker role. As a result, (so the logic goes), work complexity should have no impact on global feelings of efficacy or psychological well-being[17] Yet our study provides strong evidence that the worker role is, in fact, salient to older adolescents, since work complexity has negative psychological implications.

One reason why work complexity is salient for older adolescent workers (especially college students) is that they are only a few years away from attaining a professional job. As a result, many older adolescents spend a great deal of time imagining their future "possible self" in terms of the adult worker role (Mortimer and Johnson 1997). Even though an adolescent's present job is quite different from the job likely attained after graduation, the very act of working is still likely to be salient in terms of its perceived connection to later adult work experiences (Clausen 1993; Mortimer and Johnson 1997).

[17] See previous discussion on "Salience of Youth Work"

As an illustration, suppose Jack is a social science major who works part-time for a market research company doing telephone interviewing. Jack's work tasks are low in complexity since he is required to use the same survey (and thus the same format) in all of his telephone calls. Furthermore, although Jack has taken coursework in statistics and methodology, his job does not afford any opportunity to use his skills in terms of questionnaire design or data analysis. When Jack began his job, he rationalized that in a few years, he would be the person performing the more complex tasks, perhaps even at a similar company. But as time went on, and as Jack was continually denied the opportunity to participate in the design or analysis of surveys, he began to question his competency in these complex tasks. Although he may still believe he will attain a more complex job in adulthood, Jack's present job certainly does not inspire his confidence in his work skills and abilities (and thus causes lowered self-efficacy). This example illustrates the saliency of work complexity for older adolescents. Low work complexity (even at a temporary job) is likely to lower the adolescent's self-efficacy as s/he imagines his/her future self in an adult job.

Second, low work complexity during late adolescence may have detrimental long term psychological implications. Scholars contend that the development of self-efficacy during adolescence is central in making a successful transition to adulthood (Dornbusch 1989; Mortimer et al. 1996). Since college students are in the transitory phase between adolescence and adulthood, experiences such as low work complexity are likely to sacrifice this developmental period. Thus, instead of increasing one's sense of competency during late adolescence, those who spend many hours performing repetitive, low-skilled tasks actually decrease (or at least fail to

develop) the sense of efficacy necessary for adulthood roles. This lowered sense of efficacy, in turn, is related to psychological distress in older adolescents (as shown in the present study).

Previous research demonstrates that psychological distress during adolescence is an important risk factor for adulthood depression (e.g. Fleming and Offord 1990). Since low work complexity is indirectly related to psychological distress during adolescence, this negative psychological state may continue into adulthood. Although work complexity during adolescence may have no direct effect on adulthood depression, the psychological distress generated from low work complexity may have significant implications if it occurs during the delicate developmental period of late adolescence. In other words, it may be difficult to recover (or gain in the first place) self-efficacy or psychological well-being during adulthood that is sacrificed during adolescence (due to low work complexity). Thus, low work complexity not only has contemporaneous effects on psychological distress (as demonstrated in the present study), but may also have detrimental psychological implications into adulthood.

The present study serves as great impetus for future longitudinal research on work complexity and psychological distress in adolescent and adult populations. Contrary to conventional wisdom, we demonstrate that low work complexity has a negative impact on self-efficacy and psychological well-being during late adolescence (similar to adult populations). Given the critical nature of the "transition to adulthood" period in terms of developing self-efficacy and psychological well-being, it is vital that future research monitor the long term impact of low work complexity during adolescence on *adult* psychological functioning. Work complexity is,

indeed, a crucial aspect of work quality for adolescent (and possibly adult) psychological well-being.

Work Autonomy

In contrast to our findings on work complexity, the present study finds no significant impact of work autonomy on psychological well-being. We were surprised by this, given our hypothesis that work autonomy would be positively related to psychological well-being for older adolescents (see Hypothesis 3a). Recall that the present study fills a gap between studying the psychological impact of work autonomy on young adolescents and adults. As discussed previously, Shanahan and colleagues (1991) find that high work autonomy actually decreases psychological well-being among young adolescents (10^{th} graders). The authors speculate that since young adolescents have limited experience with decision making, they feel threatened by high work autonomy, and thus experience psychological distress. Studies on later life cycle stages, however, find that work autonomy is no longer threatening and in fact has a positive impact on psychological well-being for post-college young adults (Mortimer 1986) and adults (Kohn et al. 1990; Kohn and Schooler 1983).

The present study speculated that during the life cycle stage of late adolescence, individuals would have sufficient experience with decision making activities to no longer be threatened by work autonomy. As a result, we hypothesized that older adolescents would benefit psychologically from work autonomy, similar to adults. But instead, we find no impact of work autonomy on psychological

well-being for older adolescents. Certainly, this indicates that by the time of late adolescence, work autonomy is not perceived as a threat, as it is for younger adolescents. Yet, individuals do not appear benefit psychologically from work autonomy until the post-college years. This is puzzling since older adolescents *do* benefit psychologically from our other measure of occupational self-direction (work complexity). Why is work complexity more important than work autonomy in terms of psychological well-being for older adolescents?

One possibility is that older adolescents' expectations for occupational self-direction are similar to their current school experiences. At a large university like Michigan State, (with class sizes upwards of 200 students), the majority of school assignments involve reading, taking multiple choice tests, and the occasional paper. The material covered in such assignments is typically quite complex. Since new material is consistently presented, assignments are hardly routinized. Furthermore, students must have a high degree of skill and/or ability to grasp challenging concepts. Thus, college students are quite accustomed to school tasks involving high complexity.

In contrast, college students typically have little *autonomy* or decision making power in completing their school tasks. Professors decide upon students' reading assignments and often outline explicitly what students will be tested upon or the topic of a writing assignment. Furthermore, many college students are not autonomous in other aspects of college living. For instance, many students live in dormitories where they are partially supervised, and thus cannot make independent decisions about the "house rules." Furthermore, estimates indicate that about half of college students are financially dependent on their parents (National Center for

Education Statistics 1993), and as such, are unlikely to have full decision making control over financial matters.

Thus students at large universities are accustomed to situations involving high complexity but low autonomy. When such adolescents work at part-time jobs, however, they often experience low autonomy *and* low complexity. Since college students are accustomed to complex school work, making the switch to routinized work tasks that do not require any special ability is particularly difficult, especially when the adolescent feels s/he has gained skills in school that could be applied to more complex work tasks. Given this discrepancy between school and work tasks, it is not surprising that the present study found a relationship between low work complexity and psychological distress.

Autonomy, on the other hand, is not something college students regularly encounter in school or living situations (as discussed above). Often it is not until young adulthood that individuals make fully independent decisions such as buying a car or house or deciding upon a general lifestyle. As a result, older adolescents may not expect to be able to make independent decisions in a job situation. Although high work autonomy is not threatening (as it is for younger adolescents), it is also not an expected feature of work. Thus, the denial of autonomy at work would be unlikely to cause psychological distress. Thus, older adolescents' experience with low autonomy in other aspects of life may explain the present study's finding that low work autonomy has no impact on psychological well-being.

In addition to exploring the impact of work autonomy on psychological well-being, we also examined its effect on self-efficacy. In contrast to Hypothesis 3b, the present study found no significant impact of work

autonomy on self-efficacy for older adolescents. The explanation for this finding could be similar to the above argument, that since older adolescents are unaccustomed to high work autonomy, that it has no impact on self-efficacy (similar to its null effect on psychological well-being). Yet, we are still puzzled by this finding because it stands in stark contrast to previous research as well as our own study's qualitative findings. Let us discuss each in turn.

First, a number of previous studies on young adolescents indicate work autonomy increases self-efficacy (Call 1996; Eccles et al. 1991; Steinberg 1990). Thus, in contrast to the negative impact of work autonomy on psychological well-being, making independent decisions at work has a positive impact on self-efficacy for young adolescents. Even though adolescents may be threatened by work autonomy (which causes psychological distress), it still appears to increase their sense of competency or efficacy. For instance, suppose that Sue works at a retail clothing store. She is given ample leeway in deciding how to display clothing on the racks and in dealing with customer complaints. Although Sue may find this freedom threatening and thus is often psychologically distressed, she observes herself making these independent decisions. Even if work autonomy is psychologically difficult for Sue, she begins to believe that she is capable of and competent in such work tasks, thereby increasing her sense of efficacy.

In addition to research on young adolescents, research indicates that work autonomy increases self-efficacy for adults (e.g. Kohn and Schooler 1983). When we discussed the impact of work autonomy on psychological well-being, it was reasonable to suppose that the effect of work autonomy goes from negative (young adolescence) to neutral (late adolescence) to positive (adulthood). In

the case of self-efficacy, however, we have no reason to suspect that the positive impact of work autonomy would disappear between the period of young adolescence and adulthood. If work autonomy causes a sense of competency in young adolescence, we would assume that this would continue throughout the adolescent life cycle period into adulthood.

Another reason we are suspicious of the present study's null finding regarding the impact of work autonomy on self-efficacy is because our qualitative interviews tell a very different story. We asked respondents how it made them feel when they were unable to make decisions as to how to carry out work tasks. Overwhelmingly, respondents' descriptions seemed to indicate feelings of low self-efficacy. Many used words to describe their feelings such as "helpless", "a loss of control", "inferior", and "incapable" One respondent went on to explain "it makes me feel like they don't think I know what I'm doing." Another said "They tried to break your spirit. I felt trapped and incapable of doing the work" Given the multitude of similar responses, it seems clear that low work autonomy does, in fact, have a negative impact on older adolescents' sense of efficacy.

Certainly, we cannot take too much stock in our qualitative results, given they are based only on 10 respondents. Still, why are our findings so discrepant? One consideration is that our survey questions measure sense of efficacy in general, whereas our qualitative interviews ask about respondents psychological reaction to the specific condition of low work autonomy. In contrast to Kohn's generalization theory, perhaps older adolescents do not generalize their experiences of low work autonomy to other aspects of life. Instead, perhaps they only suffer lowered efficacy with regards to work tasks and experience no decline in general self-

efficacy. Unfortunately, the present study cannot explore this issue fully. Thus, an important task for future research is to compare and contrast the impact of work autonomy on specific and general self-efficacy in older adolescents.

EMOTIONAL LABOR

In addition to work complexity and autonomy, we discovered another aspect of alienated labor that may be important for older adolescents' psychological well-being: "Emotional Labor." As discussed previously[18], the rise in the service economy since WWII has brought with it an increase in what Arlie Hochschild (1983) refers to as "Emotional Labor" This refers to work tasks that require the worker to "induce or suppress feeling in order to sustain the outward countenance that produces the proper state of mind in others." (p. 7). Estimates indicate that between one-half and one third of U.S. workers have jobs that require significant levels of emotional labor. This is particularly significant for adolescent part-time workers, since the majority work in retail or service sectors (Aronson et al. 1996) where emotion work is most required (Hochschild 1983).

Although we did not ask directly about emotion work, during the course of the qualitative interviews, many respondents described work situations that seemed to suggest that emotional labor was a central factor in their work tasks. For instance, when one respondent was asked how low work complexity made her feel, she answered instead by saying "What was really the most challenging was dealing with supervisors and rude customers. Just trying to stick it out and stay there was the most challenging part." For

[18] See previous discussion on "Alienated Labor and Occupational Self-Direction"

this respondent, containing her natural (negative) emotional reactions when others were rude *was* her work. This closely echoes Hochschild's contention that in postindustrial economies, the capacity for emotional labor (rather than working with "things) has become the central task of today's service jobs.

Another respondent commented "I refuse to lie to people to make a sale. You can't turn yourself on and off. If I'm not a dishonest person, how can I lie to make a sale? How can I be dishonest half the day and honest the other?" Such comments closely parallel Hochschild's study (1983) on Delta airlines, where she found that flight attendants were required to smile at moment's notice, no matter what their internal emotional state. Clearly, the respondent in the present study felt a great deal of cognitive dissonance because of the inconsistency in her behavior at work and her private feelings. Hochschild argues that when workers must constantly manage their emotions, that they eventually lose their very capacity to feel and become alienated from the services they provide. It appears that this unfortunate process has already begun for the above mentioned respondent.

How many older adolescents have similar experiences at work? Probably the majority since so many adolescents work in sectors (retail and service) that require emotional labor. What is the impact of such emotional labor on psychological well-being? To be sure, the respondents in the present study *appeared* distressed in their descriptions about emotional labor, but the present study has no way of testing for this empirically. It is unfortunate that the present study did not have the foresight to ask questions regarding emotional labor and its psychological implications. However, our discovery proves to be extremely promising ground for

future research. To my knowledge, no studies to date have examined the impact of emotion work on adolescent part-time workers. This is an extremely exciting and important line of research for the future.

CO-WORKER SOCIAL SUPPORT

The present study makes an important contribution by exploring the impact of co-worker social support on older adolescent workers. Although Mortimer and colleagues have examined the negative impact of work quality on adolescent psychological well-being, they have yet to explore the role of co-worker social support in this relationship. No study to date has explored the potentially positive impact of co-worker social support on adolescent workers' psychological well-being as well as the possible mitigating role co-worker support plays in the relationship between low work quality and psychological distress. The present study draws upon adult literatures in this quest.

First, our results indicate that perceived emotional support from one's co-workers has a positive impact on older adolescents' psychological well-being. This finding provides strong support for Hypothesis 4(a). Furthermore, we have confirmed the results of previous studies (albeit on adults) indicating that co-worker social support has a direct positive impact on psychological well-being (Blau 1981; Fenlason and Beehr 1994). Thus, when older adolescents feel they can talk over their problems and feel close with people at work, they are more likely to experience psychological well-being.

We had expected the most supportive co-workers to be members of one's peer group. We reasoned that college students would share more in common in terms of interests, problems and lifestyles with other students

rather than with older workers. As a result, we expected older adolescent co-workers to form a camaraderie that would be protective of psychological well-being[19] We failed to find, however, any difference in perceived social support based on whether respondents worked primarily with peers or non-peers. Thus, co-worker support is important for older adolescents' psychological well-being regardless of the source of support.

Should we conclude that peer co-workers are no more supportive than older adult workers for adolescents? I would caution against this hasty conclusion. First, the present study is a pioneer in examining the psychological implications of co-worker support, and thus demands replication. Second, our measure of co-worker social support may not adequately capture the type of support provided by peers. We followed the lead of previous studies on adults in our measure of co-worker social support. And indeed, we find that older adolescents view adult workers as providing the same level of this type of support as peers. It is possible, however, that peer co-workers develop a sense of camaraderie that is supportive but does not always involve things such as talking over one's problems. For instance, older adolescent co-workers may "joke around" or discuss college courses or mutual acquaintances. Although adolescents may not always feel emotionally "close" to their co-workers, this sort of camaraderie among peer workers may still be perceived as supportive and thus have positive psychological implications. It is important that future research follow up on the present exploratory study by examining more specifically how older adolescents interact with both peers and non-peers at work.

In addition to examining direct effects, we also explored the potential *moderating* role of co-worker support in the relationship between work quality and psychological

[19] See previous discussion on "Source of Support"

distress (see Hypothesis 4b). We find that co-worker social support moderates the relationship between work complexity and psychological well-being. This means that high work complexity only has positive psychological implications for adolescents with high levels of co-worker social support. Recall in a previous discussion, we speculated that older adolescents benefit psychologically from high work complexity given that they are accustomed to complexity in their school work. Yet skills attained through complex school work may not be directly transferable to work. For instance, even if an adolescent is quick to grasp difficult concepts in biology, this does not mean s/he is automatically able to participate in a meeting on how to best market a company's product.

Older adolescents may need support from more experienced co-workers in order to fully transfer their skills and abilities from a school to a work context. For instance, supportive co-workers may listen to concerns, help the adolescent "problem-solve", make introductions to other staff members, and encourage the adolescent to take on even more complex tasks. Thus, a more experienced co-worker may be particularly helpful in mentoring the adolescent into the world of work. This support, in turn, is likely to increase psychological well-being. Those without such support, in contrast, may be less likely to transfer their skills to a work context, and thus may not attain any psychological benefit even when performing complex work tasks.

It is equally important that we did not find any other significant interactions of co-worker support and aspects of work quality. Regardless of co-worker social support, noxious work conditions and work/school conflict had negative relationships with psychological well-being. Talking over concerns with co-workers did not help to alleviate the psychological consequences of

experiencing uncomfortable/dangerous work conditions or contradictory demands between work and school.

This is not too surprising since discussing such concerns is unlikely to result in any real change in terms of these aspects of work quality. For instance, exposure to excessive heat is a profoundly human distress, and adolescents are unlikely to feel better through talking it over with others. Furthermore, work and school demands will continue to contradict (even when discussing the situation with others) and thus will continue to cause psychological distress. Thus, although receiving co-worker social support may be temporarily cathartic, it does not buffer the negative relationship between noxious conditions and work/school conflict and psychological well-being.

DEMOGRAPHIC DIFFERENCES

The present study examines demographic differences in aspects of adolescent part-time work and their psychological implications. Since this is not the main focus of our study, we will speculate on our findings, but will not provide exhaustive explanations.

First, we looked at differences in employment status and work hours. Consistent with previous research (Fordham 1996; Giordano 1993), we find that during high school, minorities are less likely to work than whites. This finding is consistent with the "spatial mismatch hypothesis"; the idea that since the majority of low-skilled job growth has been in the suburbs, minorities (who are more likely to live in inner city), are less able to obtain employment (e.g. Fordham 1996). Furthermore, previous research indicates that minorities are at a disadvantage in attaining

employment because of the lack of personal contacts and job referrals (e.g. Korenman and Turner 1996).[20] Certainly, we cannot definitively conclude the existence of "spatial mismatch" since we did not collect data on rates of *seeking* employment by black and white adolescents. Thus, an important task for future research is to fully examine the underlying causes of racial differences in adolescent employment rates.

Second, we speculated that racial differences in employment status would be lessened or eliminated for older adolescents attending college. Since the majority of college students (both minorities and whites) live on or near a college campus (National Center for Education Statistics 1993), this would presumably eliminate the effects of spatial mismatch. Consistent with our expectations, there were no significant differences in employment status by race for college students. Furthermore, previous research indicates that minority students are actually *more* likely to work than white students during college (Michigan State University, 1993). Thus, it may be that once minorities live in the same area as whites (i.e. during college), blacks no longer have significant difficulty in finding and attaining employment. Again, we must qualify this conclusion since we do not have data indicating rates of seeking employment during college. A complete examination of the underlying reasons for racial differences in employment rates is an important topic for future inquiry.

Furthermore, the present study finds that male college students are significantly less likely to be employed than female college students. This finding is in contrast to previous research indicating no employment status differences by gender (Mortimer et al. 1990; U.S. Department of Labor 1987). Recall that the majority of adolescent jobs are

[20] See previous discussion on "Demographic Differences in Work Status."

contained in the retail and service sectors. Research indicates that women are more likely to be employed in such sectors than men (US Census Bureau 1992). Since most adolescent jobs are in such sectors, college students may mimic their adult counterparts in the sense that female college students are more likely to take such jobs than male college students.

Another finding of interest is the significant difference in employment status by age. Specifically, younger college students are less likely to be employed than older students. Furthermore, older college students work more hours, on average, at a part-time job than younger college students. As college savings accounts run dry over time, and since college tuition costs increase when one becomes an upperclassman, college students may have to increasingly work to make ends meet. Furthermore, as college students get closer to graduation, they are more likely to envision themselves as a "worker" rather than a "student." As a result, older adolescents may be more likely to attain a part-time employment in preparation for their future adult work role.

The high cost of college tuition may also explain the finding that during college, students from higher socio-economic backgrounds are less likely to work than their low SES counterparts. Recall that previous research indicates the majority of young adolescents spend their earnings on material goods rather than towards long term goals (including saving for college expenses). Given the high cost of tuition and housing, it is reasonable to assume that college students are likely to spend a good portion of their income on these expenses (Greenberger 1988) rather than solely on consumer goods (like high school students). As a result, it is likely that only those from wealthy families are able to afford not to work (assuming they receive

financial assistance from their parents). Whereas college students from high SES backgrounds can earn sufficient spending money during the summer months to last throughout the school year, lower SES students must work during the school year simply to make ends meet

Although the above explanation is plausible, this brings up the larger issue of our measurement of socio-economic status for college students. There are a number of limitations in the present study's measurement of SES that should be addressed in future research. First, although I speculate above that college students spend much of their money earned from part-time jobs on college expenses, the present study did not explicitly test for this. Regardless of family of origin SES, we need to definitively determine why college students are working (i.e. what do they plan to spend their money on?). Furthermore, we need to test for the congruence in adolescents' stated reasons for working and the ways in which money is actually spent. Thus, an important task for future research is to construct a comprehensive breakdown of adolescents' earned and spent income.

Furthermore, as discussed previously, college students are in a semi-autonomous stage of life. Younger adolescents in high school live with their families and as such are financially dependent upon them for the necessities of life (food, shelter, etc.). In contrast, those in college often live away from home, and thus may be fully, partially, or not at all reliant on their family of origin for financial support. Instead, college students' financial status may include savings from their own work, financial aid, or gifts from family/friends. The present study's sole reliance on family SES makes a number of

assumptions that do not take the adolescents' *personal* income/social class into account.

The first assumption is that the socio-economic status of family of origin is directly transferable to resources devoted to the college aged child. Our measure of family SES implicitly assumes that higher SES families will devote more financial resources to their children than lower SES families. This is not necessarily the case. For instance, even though a higher SES family may be able to afford financially to devote considerable resources to their college aged child, they may choose, on principle, that their child should be financially independent at this stage of life. Or, a lower SES family may make great financial sacrifices in other areas of life to be able to devote considerable financial resources to their college-aged child. Thus, simply measuring family of origin income does not adequately capture the extent to which adolescents receive financial resources.

Another limitation of our family SES measure is its failure to capture the variety in family configurations. Recall that we asked respondents to indicate the income level of their family of origin. Yet this measure assumes the adolescent comes from a nuclear family, since its asks about only *one* family of origin. This measure of SES may be acceptable for high school students, since many *live* with only one family (and thus the basic necessities are generally covered by that one family). But for college students who are semi-autonomous and generally live away from home, it is possible to receive financial resources from multiple families and stepfamilies. For instance, if John's parents are divorced, he may receive resources from both his mom (who is single) and from his Dad and stepmom. Thus, our measure of family SES is limited in that it forces

John to "choose" upon which family to base his socio-economic status background.

Third, our measure of family SES assumes that older adolescents' social class is defined solely by their family. Yet older adolescents are often earning significant financial resources themselves, and many are paying for college and living expenses. Furthermore, many receive financial aid (loans and scholarships) from government, business, and universities rather than from their families. Since older adolescents are in a semi-autonomous stage of life, we must measure social class in ways that reflect this. We must begin to see older adolescents as having their own personal income status, rather than their SES being determined solely by family resources.

An important task for future research is to construct a socio-economic status measure that reflects older adolescents' personal income. This measure would involve financial resources from a number of different sources. These would include the adolescents' own work earnings, resources from family (or multiple families), resources from friends, financial aid (loans/scholarships) from government, business or universities, and previous savings. This measure would also ask adolescents the extent to which they use their financial resources for living and/or college expenses vs. luxury items. Such a measure of socio-economic status would be rich in detail and thus extremely useful when exploring differences in youth work based on older adolescents' independent social class status.

Next, the present study tested for demographic differences in work quality. We find few significant differences in terms of work quality (noxious conditions, work/school conflict, work complexity, or work autonomy). The only significant demographic differences occur for work complexity.

Specifically, older adolescents and those from wealthier backgrounds are more likely to experience work complexity. Thus, employers may view older and/or adolescents from rich backgrounds as being more capable of performing complex work tasks. Alternatively, older and/or wealthier adolescents may seek jobs containing more complex work tasks. For instance, an adolescent from a wealthier background may have parents who encourage him/her to seek employment containing higher complexity. The main point, however, is that overall, whether the adolescent is from a rich or poor background, black or white, male or female, younger or older, or has prior work experience appears to have little impact on most aspects of work quality. It seems that the playing field is relatively level in terms of work quality for college students.

The question of interest in the present study, however, is whether work quality has an impact on psychological well-being. Thus, we tested for demographic differences in the psychological implications of work quality. And in this, we find two interesting demographic differences. Given the importance of noxious work conditions for psychological well-being in our previous results, it is not surprising that it is here that we find significant demographic differences as well.

First, we find a significant interaction of noxious work conditions and age on psychological well-being. This means that younger college students are more likely than older college students to experience psychological distress when exposed to noxious work conditions. This finding harkens back to the "Developmental Readiness Hypothesis" developed by Greenberger and Steinberg 1986. As discussed previously, this hypothesis says that low work quality experienced before the adolescent has had a

chance to develop adequate coping skills is likely to have long term detrimental psychological implications.

Thus, younger college students may be less prepared to cope with uncomfortable work conditions such as excessive heat/cold, noise and dirtiness. Although older college students may find such noxious conditions just as uncomfortable, over time, they may learn ways to cope such that their psychological well-being is not sacrificed. For instance, when faced with extreme heat at work, older adolescents may be more prepared than their younger counterparts by bringing extra drinking water or cooler clothing. Furthermore, they may cope by internally visualizing a cooler environment. Since it takes time to develop such coping techniques, younger adolescents are more at risk for psychological distress when experiencing noxious conditions.

Second, we find a significant interaction of race and noxious conditions on psychological well-being. This means that black college students are more likely than white college students to suffer psychological distress when experiencing noxious work conditions. We saw previously that there are no racial differences in *levels* of noxious conditions. Thus, this finding indicates that black college students are more psychologically *reactive* than whites when experiencing uncomfortable and/or dangerous conditions such as excessive temperatures, noise, dirtiness and time pressures. How can we explain this finding?

One possibility is that blacks are more sensitive to noxious conditions based on previous experiences. African Americans are disproportionately represented among lower SES populations. Those who live in poor areas are more likely to experience negative environmental conditions such as housing

with insufficient heating/cooling, noise and light pollution, and poor toxic substance management. For instance, toxic waste dumps are more likely to be located in poor, inner city areas. As an illustration, the recent demolition of the Hudsons building in downtown Detroit left behind toxic substances estimated to be at dangerous levels. Those who lived near the demolition site (mostly poor blacks) were simply instructed to stay indoors, while it took many weeks for the mess to be cleaned up sufficiently. As a result of situations such as these, blacks (particularly those from urban backgrounds) are more likely than whites to be keenly aware of the harmful effects of toxic environments.

When black college students (from poor, urban backgrounds) work at part-time jobs, the experience of noxious conditions is likely to be far more salient than to a white college student from the suburbs, for instance. Having seen first-hand the effects of toxic environments, many black college students view noxious work conditions as a very real danger or threat. In contrast, white college students, who are more likely to have suburban backgrounds, may view such conditions as simply temporarily uncomfortable rather than posing any real threat. It is not surprising, then, that black college students are more likely to suffer from psychological distress when experiencing noxious work conditions.

The present study finds no significant gender differences in either level of work quality or in the psychological implications of work quality. Specifically, males and females held jobs with equal levels of work autonomy, work complexity, noxious conditions and work/school conflict. Furthermore, the males and females in our sample had similar psychological reactions when experiencing low work quality. We were somewhat surprised by these findings since many

previous studies on youth work have uncovered significant gender differences (e.g. Mortimer, Shanahan and Call 1996; Shanahan et al. 1991). How can we explain this discrepancy?

First, it is important to note that previous studies overwhelmingly examine those in the stage of early adolescence. For instance, the finding that jobs held by adolescent females are generally less complex than jobs held by adolescent males (U.S. Department of Labor, 1986) refers to adolescents of high school age. Research indicates that during the stage of early adolescence, jobs are likely to be sex-segregated (Greenberger and Steinberg 1986), with girls more likely to perform informal work in private homes (e.g. housework, babysitting) whereas boys are more likely to work in the formal sector (e.g. paper carrier, restaurant work, etc.) (Mortimer et al. 1990). These differences in the sector of the economy in which boys and girls work, are likely to result in gender differences in work complexity and other aspects of work quality during early adolescence.

For college students, in contrast, the playing field in more level in terms of the types of jobs adolescents hold. First, as adolescent girls move into the period of late adolescence, they are more likely to hold jobs in the formal sector (Mortimer et al. 1990). Furthermore, since the students in our sample attend college away from home, and private homes are a good distance from the college campus, it is unlikely that girls would have the opportunity to work in the private sector. Instead, both males and females are likely to work in similar retail and/or food/drinking establishments on or near the college campus. Since there is little differentiation in jobs (both males and females work in the

formal sector), it is not surprising that levels of work quality would be similar, regardless of gender.

Second, in contrast to previous research, the present study finds no gender differences in the impact of work quality on psychological well-being. Previous research on high schoolers demonstrates that noxious conditions and work/school conflict increase depression for boys, but not girls (Mortimer, Shanahan and Call 1996; Shanahan et al. 1991). The authors speculated that since there is a higher expectation that boys will work in future, difficulties associated with work were more likely to threaten boys' identity and psychological well-being.

Although this explanation may be valid for a general high school sample, the importance of work is likely to be independent of gender for a college sample. Females with high career aspirations are likely to select themselves into college. Thus, the majority of college students (whether male or female) are presumably expecting to work in adulthood since they are attaining a marketable degree. In fact, even in the general adolescent population, research indicates that less than one fourth of girls think they will be full-time homemakers (Ireson and Gill 1988). As a result, the entry into the worker role (during adolescence) is likely to be equally salient for all college students, and thus difficulties at work will lead to psychological distress equally for males and females. When viewed in this light, our null findings on gender make sense since the extent and meaning of the worker role converges during late adolescence.

PRACTICAL IMPLICATIONS

Now that we have reviewed the present study's important findings, let us say a word about the practical implications of our results. It is vital that we use our findings not only to advance the literature on youth work, but also to improve the lives of older adolescent workers. As parents and policy makers, we must protect adolescents' psychological well-being and ensure their healthy development and transition into adulthood. As a caveat, it is unlikely that we can significantly alter the *extent* to which adolescents work. As discussed, complex market factors have caused a vast increase in youth work since WWII. Thus, for the foreseeable future, youth work is here to stay. We can, however, monitor the aspects of work quality that the present study finds to be most harmful for older adolescents' psychological well-being.

Most efforts to date on improving the experience of part-time work for adolescents have focused almost exclusively on limiting the number of hours worked. For instance, in the United States, 14 and 15 year olds may only work 3 hours/day after school, for a weekly maximum of 18 hours/day (Beyer 1994). Yet, recent research indicates that it may not be work hours per se, but rather the *quality* of work that has a greater impact on psychological well-being. At present, there is a significant time lag in research on work quality and policies reflecting this focus.

Furthermore, most efforts to date have focused almost exclusively on young adolescents (high school students). For instance, the Fair Labor Standards Act (FLSA), passed in 1938, restricts the hours and settings in which children under 18 years of age can be employed (Beyer 1994). Yet many of these regulations were enacted during a time period when the majority of 16 and 17 year olds

were not attending school. Such regulations have often not been updated since that time period to reflect the current concerns of older adolescents still attending school (Steinberg: as interviewed by NPR, 1999). Specific to the present study, older adolescents who attend college continue to combine work and school roles, and are subjected to many of the same aspects of low work quality as younger adolescents. We cannot continue to ignore the phenomena of older adolescent part-time work in our debates on policy. The present study will suggest areas that are particularly important (based on our empirical findings) when enacting policy on older adolescent workers.

The main finding of the present study is that noxious work conditions have a strong impact on older adolescents' psychological distress. Similar to research findings on young adolescents and adults, we find that older adolescents who are exposed to excessive heat, cold or noise are at greater risk for psychological distress. One method of reducing adolescents' exposure to noxious conditions (and thus improve psychological well being) is to construct new and enforce existing health and safety regulations.

Generally, the health and safety of young workers has been addressed in the public health and medical fields (e.g. American Academy of Pediatrics, Committee on Environmental Health 1995; NIOSH 1996) but has been largely ignored in the psychosocial fields (Castillo 1999). Numerous studies and reports indicate the negative physical health implications for adolescents working under noxious or dangerous work conditions. For instance, estimates indicate that adolescents sustained 21,620 work-related injuries and illnesses serious enough to require at least one day away from work in the U.S. in 1993 (CDC 1996). Common injuries include lacerations, sprains, contusions and burns. Furthermore, each year in the

United States, nearly 70 people less than 18 years old die from injuries at work (Derstine 1997).

The present study is important in that it illustrates the need for psychological and physical health policy makers to join together in the fight against noxious work conditions. Clearly, health and safety issues have negative implications for both mental and physical health. One way to improve work conditions for adolescents (and indeed, for all workers) is to improve compliance with existing health and safety regulations. For instance, research indicates that 38-86% of adolescent work-related injuries are associated with prohibited activities (Castillo et al. 1994). Activists have suggested methods to improve compliance with health and safety laws such as increasing monetary penalties for violations, increasing personnel for enforcement of laws (Child Labor Coalition 1993), and the periodic review of regulations to ensure that they reflect current health and safety standards (American Public Health Association 1995).

Furthermore, we need to create new regulations pertaining to noxious conditions for older adolescent workers. At present, older adolescents are not protected by child labor laws (since these pertain to workers under 18 years of age). For instance, child labor laws restrict young adolescents from working in particularly dangerous occupations. Since adolescents are still maturing physically and psychologically certain occupational hazards are considered more dangerous for adolescents than for more experienced adult workers (National Research Council 1993).

Yet, as we discussed previously, older adolescents who attend college are in a semi-autonomous stage of life. Although their physical development may be near complete, certainly their psychological development is

not. For instance, similar to younger adolescents, college students may not have the experience or psychological maturity to fully recognize the dangers inherent in noxious work conditions. Most of the child labor laws were during a time period (1940s) when far fewer adolescents attended college than do today. It is vital that we recognize the changing demographic fabric of our society, and expand child labor laws to include older adolescents as well. The present study indicates that older adolescents' psychological well-being is at risk when experiencing noxious work conditions, and we must draft new health and safety laws to reflect this important finding.

Second, the present study finds that low work complexity causes psychological distress in older adolescents. This is a somewhat more challenging issue to attack. The public is generally in support of reducing noxious work conditions, since it easy to see their harmful effects. Work complexity, on the other hand, is not a condition that all persons value highly. Particularly in the case of adolescent work, the conventional wisdom is that repetitive tasks that require little skill or ability are harmless for adolescents since they will eventually attain a more professional job. Some go as far to suggest that starting at the bottom and performing such repetitive tasks constitute a beneficial developmental experience.

Yet, the present study finds that low complexity is, in fact, harmful for older adolescents' psychological well-being. We need to begin small by asking employers to include a few more complex tasks in the work day for older adolescents. For instance, a telephone interviewer could spend one hour per day doing preliminary data analysis. Although the majority of the adolescent's workday would still include low complexity,

the opportunity for complex work on a limited basis may still have significant psychological benefits.

How can we exert pressure on employers to enact such policies? One way is through school placement offices that match up students with local employers. Such offices can exchange their free advertisement of job openings to students with a promise by the employer to provide a base level of work complexity. Such school offices can point out the benefits of such policies to employers. If we return to our market research example, the company could be convinced that training the older adolescent in data analysis would benefit them over the long term. In this way, older adolescent workers could perform preliminary data analysis and free the higher paid data analysts to perform more sophisticated analysis activities. Thus, finding ways to convince employers that providing some level of complexity for older adolescent workers is really in their best interests is a vital step in fighting for improved work quality for such workers.

Third, we find that work/school conflict has a significant negative impact on older adolescents' psychological well-being. Fighting for change in this regard seems to be the most challenging task of those mentioned thus far. As discussed previously, the rise in the service economy has increased the degree of temporary labor and "flexible" work schedules. As we have seen, this "flexibility" is firmly in the hands of employers, and as such, work often contradicts with school demands for older adolescents. This is a difficult issue to tackle because employers have a vested interest in enacting such practices since flexible schedules allow them to increase their efficiency significantly. Again, we must rely on school placement offices to exert pressure on employers to increase their sensitivity to school schedules. This is

hardly a complete solution, however, since workers (regardless of age) are confronting contradictions between work and other role demands as a result of work "flexibility." This is an issue that is tied to larger structural forces that will be quite resistant to change.

Fourth, we find that co-worker social support is important in increasing older adolescents' psychological well-being. Furthermore, co-worker social support buffers the negative relationship between low work complexity and psychological well-being. We must exert pressure on employers to enact mentoring programs in which adolescent workers are matched with more experienced workers. The mentor will be required (as part of their job), to guide the adolescent in performing more complex work tasks, making introductions to other staff members, and providing council and advice. This would ultimately benefit employers since adolescent workers would be better trained and more able to perform complex work tasks. Further research is needed that does a cost/benefit analysis of implementing such programs. Such studies are vitally needed in order to tackle the difficult task of convincing employers that such mentoring program will increase efficiency over the long term.

Thus far we have discussed solutions based upon employers improving work quality in their businesses (with pressure from school placement offices). Another method of increasing psychological well-being among older adolescent workers, however, is the adolescent him/herself being extremely selective when choosing a part-time job. It is vitally important that we widely disseminate the results of the present study (and similar others) that indicate the harmful psychological implications of poor work quality. Increasing awareness among adolescent workers is a vital first step in changing poor work quality.

Specifically, older adolescents who are aware of the negative psychological implications of noxious conditions, work/school conflict, and low work complexity will be more likely to seek out part-time jobs that contain better work quality. Furthermore, when encountering poor work quality, adolescents who are armed with knowledge and awareness will be more likely to confront employers and fight for better working conditions. Employers often get away with providing poor work quality because adolescents figure that this is just "the way it is." To be sure, this method is limited given the multitude of adolescent jobs that contain poor work quality and the resistance of employers to changing such conditions. Still, an awareness will increase older adolescents' resistance to "putting up" with poor work quality, and given enough time, will likely lead to some base level of response by employers in terms of improving work quality.

Such individual awareness may even lead to collective efforts to improve work quality for older adolescent workers. Presently, young workers are the most significantly underrepresented groups by unions in most developed countries (Gallagher 1999). The change from a manufacturing to a service economy has brought with it (in the United States) a decrease in union representation. Until unions can devise new strategies for organizing service and retail workplaces, young people are likely to be in non-unionized environments, since they tend to work in these industries. Furthermore, young people tend to "job hop", making organizing efforts even more difficult for adolescent workers.

Despite the obstacles, there have been a number of union efforts to improve working conditions for adolescent workers. Many of these efforts have been in Canada, where overall union membership for adult workers has

remained steady (in contrast to the United States' declining rates). For instance, in the 1970s, union organizing efforts in McDonald's, Ponderosa, and Winco Steak –n- Burger outlets in London, Ontario were successful in signing up the majority of workers in the outlets they targetted. Unfortunately, not all the outlets were organized, and thus the labor relations board decided that the union did not have a majority. Still, these efforts gave hope that young workers could, in fact, be organized (Reiter 1996).

An impressive bargaining effort for young workers occurred in the United States during the early 1980s. The Association of Community Organizations for Reform Now (ACORN) launched an independent union, the United Labor Union (ULU) in four major cities. Their efforts specifically targeted young, exploited, low-wage workers. In successful drives to sign up young people, union organizers explained to adolescent workers that they deserved "dignity" and "respect" from their employers. As a result of their efforts, many fast food restaurants (especially in Detroit where ACORN was located) raised wages, created minimum shifts, and gave paid holidays (Reiter 1996).

Although this union was eventually decertified in the late 1980s, such efforts left a positive legacy for the ability to organize young people into unions. First, it became clear that young people were, in fact, interested in union membership if they felt it served their interests. As one Detroit organizer put it "A lot of these fast food operators think they can treat their teenage employees like garbage just because they're young and inexperienced. The kids are fed up with this kind of treatment and that's why they're joining our union." (Reiter 1996).

Second, although ACORN focused primarily on increasing wages for young workers, there is reason to suspect that other aspects of

work quality should be targeted in the future. Certainly, wages are a critical issue for adults who are supporting themselves and possibly dependents as well. However, as we have seen, most adolescents who work part-time come from middle-class backgrounds, and generally do not use their money for long term savings. As a result, it is reasonable to suspect that increases in wages are not likely to have a significant impact on adolescents; psychological well-being. The present study found a number of aspects of work quality that are, in fact, psychologically harmful for adolescent workers such as work/school conflict, low work complexity, and noxious conditions. Since ACORN successfully appealed to young people's sense of wanting "respect" from employers, this could easily be translated into an appeal for more complex work tasks for instance. It is important that future union efforts work focus on the findings from studies such as the present one in making decisions about which battles to fight.

Lastly, parents can play an important role in limiting the negative psychological implications of poor work quality for older adolescents. First, we need to disseminate our results not only to adolescents, but also to their parents. The conventional wisdom among most parents is that youth work is inherently beneficial. We must increase awareness among parents that while youth work certainly has some benefits, many of its aspects have negative psychological implications. Parents must be made aware of which specific aspects of work quality are most detrimental to their children's' psychological well-being. Although parents cannot completely control their children's' working activities, they can inquire about the work quality at their son or daughter's workplace. This increased awareness among parents may transfer to their children in that adolescents

will be more likely to consider various aspects of work quality when choosing a part-time job.

Furthermore, parents who are aware of the negative psychological implications of poor work quality are less likely to encourage their children to work. Since much of the conventional wisdom indicates that work is inherently good for adolescent development, many parents have actually pushed their children to work. Armed with greater awareness, however, parents may decide to increase their financial assistance to their son/daughter and suggest alternative activities such as volunteer work or extra-curricular activities. Certainly, the high cost of college tuition may preclude this possibility for lower or even middle income families. Still, parental awareness of the negative psychological implications of youth work may change the extent to which adolescents are pressured to have a part-time job.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

As with all research, the present study is not without its limitations. Throughout the discussion section, we have noted specific limitations and questions for future research within each section on work quality. At this point, I would like to discuss two *general* limitations that are pervasive throughout the entire study. Given the exploratory nature of the present study, these limitations can serve as an important impetus for future research.

First, the present study is limited in its use of cross-sectional data. Throughout our discussion, we have conceptualized of work quality as *causing* psychological well-being. Although this is theoretically grounded, we

cannot definitively establish the causal direction of this relationship in an empirical sense. Our main barrier in testing for causality is that we have no measure of prior psychological well-being. Although we ask respondents about their previous work experiences retrospectively, questions regarding prior levels of psychological distress are likely to be heavily confounded with current levels of distress. Yet, we must have this information in order to fully test for the alternative argument that psychological well-being causes aspects of work quality. There are two ways in which this argument can be theoretically conceptualized...

First, adolescents who are psychologically distressed may seek out jobs with lower work quality. Or put another way, adolescents who are psychologically distressed may not expend the extra effort to attain a job with high work quality. For instance, suppose Sue is suffering from psychological distress. She sees a "help wanted" sign at a restaurant and applies immediately because she doubts she can find much better (as a result of her depression). Sue's job has extremely noxious work conditions as well as low complexity and autonomy. Furthermore, her job hours contradict with studying for college exams. As a result, Sue suffers from further bouts of depression, which ironically enough, actually cause her to stay at her current job even longer.

Another possibility is that psychological distress leads to the *perception* that one is experiencing lower work quality. In other words, whether or not work quality is poor, adolescents who are psychologically distressed will perceive it to be so. Let us return to our example of Sue who is psychologically distressed. One of Sue's co-workers at the restaurant is a fellow college student, Tim (who has high psychological well-being). Although Sue and Tim have similar work experiences,

Sue allows her depression to cloud her thoughts in the sense that she perceives poor work quality whereas Tim does not. These perceptions of poor work quality, in turn, cause Sue to become increasingly psychologically distressed.

Note that in both of the above examples, psychological well-being and work quality (or perceived work quality) work in reciprocal fashion. In other words, psychological distress and poor work quality form a downward spiral where each increases the other over time. Our present study only takes a single snapshot of this relationship, and thus cannot assess reciprocal effects. We do not know, for instance, whether prior psychological well-being affected current work quality. Furthermore, we do not know how current work quality will impact upon psychological distress in adulthood. Thus, an important and exciting task for future research is to assess such relationships using data that tracks individuals from early adolescence through adulthood. The present study provides a fertile starting ground for such longitudinal studies covering the late adolescent period.

A second limitation in the present study is its use of a college student sample. Recall that we wish to examine those in a semi-autonomous life cycle phase. As discussed previously, college students fit this bill quite well since they are neither fully independent nor dependent and continue to combine work and school roles. Thus it is not the use of a college student sample per se that we feel is the present study's limitation.

Rather, the limitation of our sample lies in the lack of variety of college students. Our data come from a single university whose students' experiences are not necessarily representative of all colleges and universities. First, Michigan State University is a very large university with over 40,000 students, the majority

of whom live on or near campus. The massive size of this university has created a small "town" of sorts (East Lansing) that caters primarily to students. As a result, there are a plethora of low level service jobs both on and near campus such as fast food restaurants, cafeterias, and student oriented retail stores. Furthermore, employers have a large sample of cheap student labor from which to fill these positions.

In contrast, a smaller college or a commuter campus would not have as great a need for student oriented services on or near campus. As a result, students at such colleges would be forced to seek employment in the surrounding community. In the case of Michigan State University, the Lansing area has many highly skilled state government workers, and has little need for college student workers. At a smaller college, however, students may be more skilled than the residents in the surrounding community, and thus may be able to land a job of relatively high quality. Furthermore, employers cannot afford to be too choosy since they only have a small sample of students to draw upon to fill positions. As a result, students at smaller colleges may be more likely to attain a job with higher work quality than a student at a large student-oriented university.

Second, Michigan State University draws its student population from relatively wealthy suburban areas in Michigan. Although many students pay for a portion of their education, their wealthy backgrounds may impact upon motives for working. Similar to findings for high school students (e.g. Bachman 1983), college students may work more to buy material goods rather than economic necessity. Furthermore, although Michigan State is officially a land grant university, it draws only a fraction of students from rural (or urban) communities. As a result, students from suburbia may have very different

orientations towards work than those from rural or urban communities.

To be sure, there are many other differences based on type of university and student background than I've covered here. My intent is not to provide an exhaustive review of such differences, but rather to clarify the extent to which our sample is generalizable. The results of the present study can only be reasonably generalized to relatively large, self contained universities in the United States. Having said this, our results are not without merit when speculating on a variety of college student experiences. Rather, our study examines *general processes* of the impact of work quality on psychological well-being for those in late adolescence. As such, the present study is an important starting point for research on the work experiences for all those making the transition to adulthood.

CONCLUSION

The present study has made many important contributions. We have done the important work of replicating Mortimer and colleagues' groundbreaking research on youth work using an older adolescent sample. It is vital that we examine the impact of work quality across the life span, including the "transition to adulthood" period. Similar to Mortimer's research, we find that poor work quality such as noxious conditions, work/school conflict, and low work complexity have negative effects on psychological well-being for older adolescents. We have also moved beyond Mortimer's work on early adolescence in finding that co-worker social support is important for psychological well-being in older adolescents. Furthermore, we discovered that "emotional labor" is a

significant aspect of youth work and an exciting area for future research on younger and older adolescents.

In sum, the present study has made a significant contribution to two general literatures. First, we have added to the general literature on the relationship between work and psychological well-being by clarifying this relationship within a particular age group (late adolescence). Second, this study has contributed to the adolescent development literature by exploring a largely neglected socialization context (work) on adolescent development and psychological well-being. Lastly, the present study's results have many important practical implications for improving the lives of older adolescent workers.

APPENDICES

APPENDIX A: WORK QUALITY MEASURES

Noxious Work Conditions

1. How often is there time pressure on your job?

1	2	3	4	5
Never		Sometimes		Almost Always

2..How often are you exposed to excessive heat, cold or noise at work?

1	2	3	4	5
Never		Sometimes		Almost Always

3. I have too much work to do everything well

1	2	3	4	5
Not at all true		Somewhat true		Very true

4. I feel drained of energy when I get off work

1	2	3	4	5
Not at all true		Somewhat true		Very true

Perceived Work/School Conflict

1. Because of my job, I come to school tired

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree Nor disagree	Somewhat agree	Strongly agree

2. Because of my job, I tend to skip classes

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree Nor disagree	Somewhat agree	Strongly agree

3.Because of my job, I come to class unprepared

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree Nor disagree	Somewhat agree	Strongly agree

Work Autonomy

1.How much freedom do you have on your current job? That is, how much do you decide on your own what you do on the job?

1	2	3	4	5
Very little, there are few decisions I can make		Some freedom to Make decisions		Very much, I make many decisions

2.My supervisor leaves me alone unless I ask for help

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree Nor disagree	Somewhat agree	Strongly agree

3. My job allows me to control my own work pace

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree Nor disagree	Somewhat agree	Strongly agree

4.It is basically my responsibility to decide how my job gets done

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree Nor disagree	Somewhat agree	Strongly agree

5.I have the freedom to decide what to do on my job

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree Nor disagree	Somewhat agree	Strongly agree

Work Complexity

1. How much challenge is there on your job?

1	2	3	4	5
Very little Challenge		Some challenge		A great deal of challenge

2. How much variety is there in your job?

1	2	3	4	5
Very little, I do pretty much the same thing over and over		Some variety		Very much, I do many different things

3. My job is so simple that virtually anybody could handle it with little or no initial training

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree Nor disagree	Somewhat agree	Strongly agree

4.On my job, I seldom get the chance to use my special skills and abilities

1	2	3	4	5
Strongly disagree	Somewhat disagree	Neither agree Nor disagree	Somewhat agree	Strongly agree

APPENDIX B: PSYCHOLOGICAL MEASURES

Self-Efficacy Scale

1=Strongly Disagree 2=Somewhat Disagree 3=Somewhat Agree 4=Strongly Agree

1. There is no way I can solve the problems I have
2. Sometimes I feel I'm being pushed around in life
3. I have little control over the things that happen to me
4. I can do just about anything I set my mind to
5. What happens to me in the future mostly depends on me
6. I often feel helpless in dealing with the problems of life
7. I am able to do things as well as most other people
8. I feel that I do not have much to be proud of
9. I am inclined to think I am a failure
10. I am satisfied with myself
11. I wish I could have more respect for myself

Depression (CES-D scale)

1=Never 2=Hardly Ever 3=Some of the Time 4=Most of the Time 5=Always

1. I felt depressed
2. I felt that anything I did was an effort
3. My sleep was restless
4. I was happy
5. I felt lonely
6. People were unfriendly
7. I enjoyed life
8. I didn't feel like eating. My appetite was poor
9. I felt sad
10. I felt that people disliked me
11. I could not get "going"
12. I felt that I just had to get drunk
13. I felt like school was going well
14. I felt happy to be in school

APPENDIX C: SOCIAL SUPPORT SCALE

1=Very Much Like My Experience 2=Much Like My Experience
3=Somewhat Like My Experience 4=Not at all Like My Experience

1. I feel close to the people at work
2. I have people at work who would always take the time to talk over my problems should I want to
3. I often feel really appreciated by the people I work with

**Are your co-workers primarily other students (peers) or non-students?
a) primarily other students
b) primarily non-students

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