

Quality of Employment and Delinquency During the Adolescent to Young Adult Transition

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Most researchers examining employment's effect on delinquency have not focused on job quality or on employment during early adulthood. This study examined the link between specific qualities of employment and changes in delinquency among a diverse sample of young adults who had moved into the work force after high school using data from a three-wave panel study (N = 389). Contrary to hypotheses, longitudinal regression analyses revealed that changes in young adults' delinquency from waves 1 to 3 were not related to work quality at wave 2 (e.g., hours worked per week, benefits, stability, future orientation, and enjoyment), with one exception; wages were marginally positively associated with increases in delinquency. The positive association between wages and delinquency is discussed in terms of the current nature of young adulthood and the types of the jobs that young adults without college degrees hold.

Keywords: delinquency, job quality, emerging adulthood

The majority of young adults begin to disengage from delinquent behavior during late adolescence (15-18) and young adulthood (ages 18-25; Le Blanc, 1993). However, many young adults continue to engage in delinquency, defined in this study as behaviors that violate societal rules for behaviors, as described in law. They include behaviors ranging from minor crimes, such as shoplifting, to more serious crimes, such as rape. Delinquency is defined broadly because this study draws heavily from survey research in criminology, which seeks to understand the underlying reasons why individuals break the law (Andrews & Bonta, 1998). Therefore, many of the theories of delinquency in criminology, including those on which the current study is based, can be used to explain a variety of delinquent behaviors. Delinquent behavior in young adulthood is tied to negative outcomes such as incarceration, poor academic performance, unemployment, and employment instability (Freeman, 1991; Harrison & Beck, 2005; Moffitt, 1993; Thornberry, Krohn, Lizotte, Smith, & Tobin, 2003). Some researchers have demonstrated that securing quality employment is a promising approach to lowering delinquent behavior in young

adults (Sampson & Laub, 1990; Wadsworth, 2006). Securing quality employment may act as a positive turning point for young adults previously engaged in delinquency because employment provides a structure to one's day, a great sense of stability and life satisfaction, and social control that may be otherwise lacking in young adults' lives.

The connection between delinquency and employment has been explored in depth (e.g., Wadsworth, 2006), but with several limitations. Much of this research is dated (Allan & Steffensmeier, 1989) and studies have yet to examine how the transition from adolescence to young adulthood might impact the delinquency-employment relationship (e.g., Mortimer, Finch, Ryu, Shanahan, & Call, 1996). The literature has infrequently examined individual qualities of work beyond wages and stability (e.g., Grogger, 1998). Lastly, much research has insufficiently controlled for selection effects (Apel et al., 2007), which refer to the non-random distribution of individuals into jobs. Such effects, if present, could create a spurious relation between delinquency and employment. For example, preexisting differences in propensity for delinquency may exist among individuals who work or participate in work programs and individuals who do not. This study aims to explore the connection between employment and delinquency by examining the relationship between specific qualities of employment and delinquency among young adults while attempting to control for selection effects.

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Employment and Delinquency

Several theories help explain the connection between employment and delinquency in young adulthood. First, according to *life course theory* (Sampson & Laub, 1990), preexisting levels of self-control partially explain engagement in delinquency. Poor self-control is established early in life and is the result of biological factors and ineffectual relationships between parents and the child, and schools and the child that fail to provide the structure needed to learn self-control. However, life course theorists also posit that transitions or turning points in individuals' lives, such as successful completion of high school, marriage, parenthood, and securing quality work, can modify life trajectories and alter engagement in delinquency (Sampson & Laub, 1990). Therefore, although propensity towards delinquency is largely established by young adulthood, entering the workforce may still have an effect on delinquency, especially during the critical transition from high school into young adulthood.

Social control theorists offer another perspective on delinquency. They propose that delinquent behavior results from poor social control (i.e., an insufficient attachment to and investment in conventional society; Hirschi, 1969; Junger & Marshall, 1997). Higher levels of social control result in increased desire for conformity, greater investment in conventional society, and decreased opportunities for delinquency. After leaving high school, young adults who do not attend college full time no longer have the stability and social control provided by the school setting. In such a circumstance, employment may function as a source of stability, satisfaction, and social control that may otherwise be lacking in their lives (Sampson & Laub, 1993). At the same time, it is important to consider preexisting levels of self-control and delinquency because they may drive individual variations in both delinquent behavior and employment.

Despite compelling theoretical arguments, empirical research has been fairly inconsistent across and within different populations. For example, both observational (Horney, Osgood, & Marshall, 1995; Kruttschnitt, Uggen & Shelton, 2000; Needels, 1996) and experimental designs (Berk, Lenihan, & Rossi, 1980) have suggested that employment is important in reducing delinquent behavior among ex-offenders. However, employment interventions with ex-offenders have shown both promising (e.g., Lattimore, Witte,

& Baker, 1990; Saylor & Gaes, 1997) and no effects (e.g., Piliavin & Gartner, 1981; Van Stelle, Lidbury, & Moberg, 1995). Similarly, while observational data have suggested a positive relationship between unemployment and poor quality employment and crime among never-incarcerated young adults (Crutchfield & Pitchford, 1997; Sampson & Laub, 1990; Wadsworth, 2006), other studies have failed to find this effect (Apel et al., 2007; Giordano, Cernkovich, & Rudolph, 2002). Employment interventions targeting at-risk youth and young adults have also shown both significant (Piliavin & Masters, 1981; Schochet, Burghardt, & Glazerman, 2001) and non-significant effects (Bloom et al., 1994; Needels, 1996). These contradictions are likely influenced by methodological differences among studies (Bushway & Reuter, 2002), including differences in the historical context of the data (Giordano et al., 2002) and differences in methods of controlling for selection effects (Apel et al., 2007; Paternoster, Bushway, Brame, & Apel, 2003).

Age and the Effect of Employment on Crime and Delinquency

Research suggests that age is an important determinant of the direction and strength of the relationship between delinquency and employment. For older adults, the relationship tends to be stronger and more consistent (Thornberry & Christenson, 1984). For example, the National Supported Work Demonstration Project had an effect on the arrest rates of ex-offenders 27 years old and older, but not on the arrest rates of ex-offenders 26 years old and younger (Piliavin & Gartner, 1981). The authors suggest that there is something qualitatively different about older ex-offenders. Unfortunately, very few studies using an adult sample look at age as a moderating factor.

There may also be differences in the relationship between employment and delinquency among adolescents and adults. In contrast to studies about adults, some studies indicate that adolescent employment *increases* engagement in delinquent behavior. Compared to non-employed students, employed students engage in more deviant behavior and school misconduct in these studies (Bachman, Safron, Sy, & Schulenberg, 2003; Greenberger & Steinberg, 1986; Mortimer, 2003; Ploeger, 1997; Wright, Cullen, & Williams, 1997). However, recent studies that use more sophisticated methodology to handle selection effects have demon-

strated that employment may not have an effect on the delinquency of adolescents (Apel, Paternoster, Bushway, & Brame, 2006; Apel et al., 2007). The relationship found in prior studies was therefore likely driven by selection—rather than causal—effects, and is thus spurious.

Nevertheless, studies showing that employment has a negative or no effect on adolescent delinquency pose an interesting contradiction. Researchers claim that employment does not decrease delinquency among adolescents as it does with adults because adolescents are not yet attached to the labor market. Therefore, a transition in the meaning of work takes place during young adulthood (Uggen, 2000). For many young adults, especially those not attending school, work plays a large role in their identity and well-being. Adolescents may not view employment in the same way, especially those that remain in high school. Furthermore, adolescent employment, especially working long hours (i.e., more than 20 hours per week; Bachman & Schulenberg, 1993; Mortimer, 2003; Mortimer et al., 1996; Wright et al., 1997), is considered by many to be a premature transition to adulthood that decreases ties to more conventional adolescent institutions such as school and family (Uggen & Staff, 2001).

Quality of Work

Differences in the relationship between employment and delinquency among persons of different ages may also be caused by differences in the quality of their jobs, though this has rarely been considered in the literature. This is likely due to the fact that there is little variability in the quality of work among adolescents: most work in lower-level retail and service-sector jobs (Committee on the Health and Safety Implications of Child Labor, 1998). Mortimer (2003) suggests that the quality of work affects psychosocial outcomes among adolescents such as drug and alcohol use, grades, and mental health, with poorer quality work linked to worse outcomes. For example, using cross-sectional data, Mortimer, Finch, Shanahan, and Ryu (1992) found that some work qualities, such as providing skills for the future, predictability, requiring innovative thought, and complexity, were related to psychological benefits and problem behaviors among female and male adolescents. These contrasting results may have occurred because only high quality work increases adolescents' attachment to and investment in conventional society.

Failure to consider work quality may in fact have contributed to earlier findings that linked employment to increased adolescent delinquency.

With few exceptions, researchers exploring the effect of employment on delinquency among ex-offenders, adolescents, and young adults ignore the quality of work. Although inconsistent, studies that have included measures of work quality, such as wages (Gould, Weinberg, & Mustard, 2002; Grogger, 1998), benefits (Wadsworth, 2006), stability (Sampson & Laub, 1990), satisfaction (Uggen, 1999; Wadsworth, 2006), and future orientation (Crutchfield & Pitchford, 1997; Huiras, Uggen, & McMorris, 2000) suggest that work quality is in fact a key mechanism of change. As social control theory suggests, high quality work is necessary to reduce delinquency because it results in attachment to and investment in the job.

The current study focused on young adults at an important moment in their lives, as they transition from adolescence into young adulthood. Specifically, we investigated individuals who are not in school full-time and therefore for whom work was likely to be more salient. In focusing on this population, we aimed to clarify the role of work in reducing delinquency during this developmental period. In consideration of the theory and research reviewed above, we hypothesized that objective (number of hours working, benefits, wages, and job stability) and subjective (future orientation and enjoyment) reports of job quality at Time 2 (two years after high school) would be associated with decreases in delinquency at Time 3 (four years after high school). In order to minimize selection effects, we controlled for delinquency at Time 1 (participants' senior year of high school) and for demographic variables shown to be associated with delinquency (e.g., age, gender, race).

Method

Sample

Data came from a larger mental health study of a cohort of young people ($N = 1325$) as they made the transition from high school to subsequent school and work roles (Dillon, Liem & Gore, 2003). Given that the focus of this study was on work and delinquency for young adults transitioning into the labor market, we restricted participants from the larger study to those who were not full-time students or in the military at Time 2 ($N = 389$). These young adults were excluded either

because they were not participating in the regular labor market or because their jobs were less likely to be a significant part of their lives and identity.

Sample selection for the larger study involved randomly selecting high school seniors ($n = 1143$) from nine Boston-area schools that, in aggregate, were considered to reflect the socioeconomic, racial, and ethnic diversity of the state. One hundred and eighty-two individuals of the same class year who dropped out before graduation were also recruited. Participants were first interviewed in Winter 1998, with follow-up interviews conducted in Spring 2000 and Spring 2002. At Time 2, 1093 young adults (82% of original sample) were interviewed, and at Time 3, 905 young adults (68% of original sample) were interviewed. Compared to those who participated at Time 1, participants lost to attrition at Times 2 and 3 were more likely to be male, $X^2(1, n = 1325) = 9.571, p < .01$; were more likely to be Latino or Black and less likely to be White, $X^2(8, n = 1325) = 44.02, p < .001$; were older, $t = -6.87, p < .001$; were more likely to have parents with a high school degree or less, $X^2(6, n = 1325) = 28.91, p < .001$; were more likely to have dropped out of school, $X^2(1, n = 1325) = 45.43, p < .001$; and were engaged in more delinquent behavior, $t = 4.08, p < .001$. The participants who returned for interviews at Times 2 and 3 should therefore be considered a nonrandom subset of the original sample, and results stemming from their data should be interpreted with caution.

Of the subset of participants used in the current study ($N = 389$), the mean age at Time 1 was 18.25 ($SD = 1.14$) years of age. One hundred and ninety (48.8%) were males. One hundred and seventy-nine (46.0%) self-described as white, 48 (12.3%) as Latino, 97 (24.9%) as Black, 13 (3.3%) as Asian and 27 (6.9%) as other. The median level of educational attainment for participants' parents was high school graduate. Seventy-five participants (19.3%) had dropped out of school. The median high school grades were "mostly Bs, some Cs". Seventy-five (19.3%) had been arrested at least once. At Time 2, 254 (65.5%) participants were working full-time, 62 (16.0%) were working part-time, and 72 (18.5%) were unemployed. Fifty (12.9%) were also attending school part-time at Time 2. At Time 2, 13 (3.3%) participants were married and 82 (21.1%) were parents.

Measures

Delinquent Behavior

Respondents reported their delinquent behavior at all three waves using the Delinquency Checklist from the National Youth Survey (Elliot, Huizinga, & Ageton, 1985). This instrument has been widely used to measure delinquency in both adolescent and young adult populations (Ostrowsky & Messner, 2005; Paternoster & Mazerolle, 1994). Respondents were asked to indicate their frequency of engagement in criminal acts during the preceding year. These acts varied from relatively minor offenses, such as stealing things worth \$50 or less, to more serious offenses, such as attacking someone with the idea of seriously hurting or killing them and selling drugs. Due to large variance among items on the Delinquency Checklist (e.g., at Time 1 variances range from .003 to 161.04), the Cronbach's alpha based on standardized items was used. Cronbach's reliability coefficients were .72 at Time 1 and .78 at Time 3.

Objective Job Quality

All employment variables were measured at Time 2. A variable indicating *number of hours worked per week* at all jobs was used to measure employment status. For those participants not currently employed, the number of hours worked per week was coded as zero.

If a participant had more than one job, all job questions referred to the job at which the participant worked the most. *Job Benefits* was a three-item measure assessing whether or not participants' jobs provide sick leave, paid vacation days, and partial or full health insurance. A higher score indicated a greater number of benefits. Cronbach's alpha coefficient for this scale was .85. *Wages* were calculated as wages-per-hour. *Job Stability* was operationalized as the number of months the participant has been working or had been working at their most recent primary job. Participants with seasonal jobs were not asked the start date of their job and were therefore coded as 3 months. The job stability of participants not working at the time of the interview was coded as 0 months.

Subjective Job Quality

Several measures were used to assess the quality of participants' work experiences at Time 2, including measures from the Youth in Transition Study (Bachman,

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O'Malley, & Johnston, 1978), the Quality of Employment Survey (Quinn & Staines, 1979), and research by Mortimer, Finch, Shanahan, and Ryu (1992).

Since there is currently no standard pattern of measuring subjective work quality in delinquency research, we used a principal components factor analysis with varimax rotation as a guide to create job quality variables. Two unique job quality variables were extracted from the eight items. These variables, future orientation and enjoyment, clustered on both theoretical and empirical grounds and accounted for 32.41% and 25.96% of the variance, respectively. Factor loadings ranged from .62 to .86.

Future orientation. This was a five-item measure assessing the extent to which there was a future in the kind of work participants are doing, opportunities for promotion and advancement, requirements for education and training, opportunities to develop new skills, and opportunities to meet people that may help participants with their career. Responses to items ranged from 'very true' to 'not at all true' on a four-point scale; higher values indicate greater future orientation. Items were reverse scored as necessary. Cronbach's alpha coefficient for this scale was .77.

Enjoyment. This was a three item measure assessing how often participants enjoy the work they do, enjoy their time at work, and feel their work is dull and monotonous. Responses to items ranged from 'most of the time' to 'none of the time' on a four-point scale; higher values indicated greater enjoyment. Items were reverse scored as necessary. Cronbach's alpha coefficient for this scale was .72. Despite the young age of participants and the likelihood they were in entry-level

jobs, there was considerable variation in employment characteristics. Table 1 displays descriptive statistics for all variables.

Results

Correlations

Bivariate correlations between the objective and subjective quality of work variables and delinquency at Time 3 are presented in Table 2. Hours and wages were correlated with delinquency at Time 3 ($r = .14, p < .05$ and $r = .17, p < .05$, respectively), but stability, benefits, and subjective qualities of work were not.

Regression analyses

In order to test hypotheses that better quality jobs at Time 2 are related to decreased delinquency at Time 3, Ordinary Least Squares (OLS) hierarchical regressions were employed. First, relationships between continuous demographic variables and delinquency at Time 3 were explored in order to determine whether there were demographic variables that should be controlled for in analyses. Delinquency at Time 1 and number of arrests were significantly correlated with Time 3 delinquency ($r = .41, p < .001$ and $r = .12, p < .05$, respectively).

For non-continuous demographic variables, ANOVAs and t-tests were used to test their relationship with the outcome variable. There were significant differences in delinquency at Time 3 between males ($M = 7.83, SD = 30.98$) and females ($M = 1.02, SD = 7.43$), $t(209.71) = 2.95, p < .001$; high school graduates ($M = 5.07, SD = 24.84$) and drop outs ($M = 1.31, SD = 6.21$), $t(386.33) = -2.39, p < .05$; and parents ($M = 1.18,$

Table 1
Descriptive Statistics of Analysis Variables

	Range	<i>M</i> (<i>SD</i>)	Mdn
Delinquency time 1	0-247	7.49 (25.83)	0
Delinquency time 3	0-327	4.34 (22.53)	0
Hours per week worked time 2	0-80	32.39 (18.47)	40
Benefits time 2	0-3	1.48 (1.35)	1.5
Wages per hour (dollars) time 2	0-24	7.82 (4.71)	8.5
Job stability (months) time 2	0-90	10.34 (12.66)	6
Future orientation time 2	0-15	7.63 (4.95)	9
Enjoyment time 2	0-9	4.86 (2.98)	5

Table 2

Pearson Correlations: Total Delinquency at Time 3 and Independent Variables

Variable	<i>n</i>	Delinquency: time 3
Hours worked/week T2	388	.14*
Work benefits T2	385	.01
Wages T2	384	.17*
Stability T2	388	.01
Future orientation T2	384	.08
Enjoyment T2	388	.01

* $p < .05$

Table 3

Summary of Hierarchical Regression Analyses for Time 2 Work Quality Predicting Delinquency at Time 3 (N = 389)

Variable	<i>B</i>	<i>SE B</i>	β
Step 1			
Delinquency time 1	.30	.04	.37*
Gender	-.12	.04	-.17*
Dropout status	-.08	.04	-.08 ^a
Step 2a: Hours/wk time 2	.00	.00	.07
Step 2b: Work benefits	-.01	.01	-.02
Step 2c: Wages	.01	.00	.09*
Step 2d: Job stability	-.00	.00	-.03
Step 2e: Work future orientation	.00	.00	.04
Step 2f: Work enjoyment time 2	.00	.01	.03

Note. Separate regression analyses were run for Steps 2a through f. They are summarized together in the table to conserve space.

Note. $R^2 = .20$ for Step 1; $\Delta R^2 = .00$ for Step 2a; $\Delta R^2 = .00$ for Step 2b; $\Delta R^2 = .01$ for Step 2c; $\Delta R^2 = .00$ for Step 2d; $\Delta R^2 = .00$ for Step 2e; $\Delta R^2 = .00$ for Step 2f ($ps < .05$).

* $p < .05$, ^a $p \leq .10$

$SD = 5.81$) and non-parents ($M = 5.19$, $SD = 25.12$), $t(382.79) = 2.55$, $p < .05$.

Covariates, including Time 1 delinquency, were entered in the first step of a hierarchical regression. In the second step, each of the work quality variables was entered separately and one at a time, in order to test significance. All results are displayed in Table 3.

Hours worked per week. First we tested the association between Time 2 hours worked per week and delinquency at Time 3. After step 1, with delinquency at Time 1, gender, and dropout status, $R^2 = .20$, $F(3, 383)$

$= 31.59$, $p < .001$. After step 2, with hours worked per week added to the prediction of delinquency at Time 3, $R^2 = .20$, $F(4, 382) = 24.33$, $p < .001$. Hours worked per week did not significantly add to the predictive value of the regression.

Work benefits. We then tested the association between Time 2 work benefits and delinquency at Time 3. Adding work benefits in step 2 did not explain any additional variance, $F(4, 379) = 23.49$, $p < .001$; thus an increase in work benefits did not predict a significant change in Time 3 delinquency, $\beta = -.02$, $p = ns$.

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Wages. Next, we tested the association between Time 2 wages and delinquency at Time 3. Adding wages in step 2 explained another 1% of the variance, $F(4, 378) = 24.58, p < .001$, with an increase in wages $\beta = .09, p < .05$ being associated with an increase in Time 3 delinquency. The effect of wages was not in the expected direction.

Stability. We tested the association between Time 2 work stability and delinquency at Time 3. Adding stability did not explain any additional variance, $F(4, 382) = 23.72, p < .001$; thus an increase in stability did not predict a decrease in Time 3 delinquency, $\beta = -.03, p = ns$.

Future orientation. The association between future orientation at Time 2 and delinquency at Time 3 was tested next. Adding future orientation in step 2 did not explain any additional variance, $F(4, 378) = 23.72, p < .001$; thus an increase in future orientation did not predict a significant change in Time 3 delinquency $\beta = .04, p = ns$.

Enjoyment. We then tested the association between Time 2 work enjoyment and delinquency at Time 3. Adding work enjoyment in step 2 did not explain any additional variance, $F(4, 382) = 23.77, p < .001$; thus an increase in work enjoyment did not predict a significant change in Time 3 delinquency, $\beta = .03, p = ns$.

Discussion

Overall, work quality did not have the predicted effect on changes in delinquency. Despite evidence indicating that work quality decreases delinquency in young adults (Allan & Steffensmeier, 1989; Grogger, 1998; Piliavan and Gartner, 1981; Uggen, 2000; Wadsworth, 2006; Wright & Cullen, 2004) these effects were not apparent in the present study. Furthermore, only one work quality variable, wages, was associated with a slight increase in engagement in delinquency. There are several possible explanations for these effects.

First of all, the function and characteristics of young adulthood have changed over the past few decades. Arnett (2000) argues that adolescence has lengthened as the age of marriage, parenthood, and school leaving has increased. The time period between age 18 and 25 to 30 is offered as the new “emerging adulthood,” and is characterized by instability in jobs and residential, educational, and relationship statuses (Arnett, 2000). Due to these changes in young adult-

hood, it is likely that the meaning and characteristics of work have changed as well. “Emerging adults” experience employment as unstable, as an exploration of what job is right for them, and, primarily, as a source of money (Arnett, 2000). Therefore, considering that on average, participants in this study were 18.25 years of age during Time 1 and 22.26 years of age during Time 3, the individuals in this sample may not yet be at an age at which work is meaningful and has a perceptible psychological impact on them (Mortimer, 1998).

Few studies have explored and found a significant link between delinquency and work among young adults. Exceptions (Allan & Steffensmeier, 1989; Grogger, 1998; Piliavan & Gartner, 1981; Uggen, 2000; Wadsworth, 2006; Wright & Cullen, 2004) use data collected as far back as the 1970s. Therefore, these results are limited in their generalizability due to their age. This may explain the discrepancy in findings. Between the time when these studies’ and this study’s data were collected, the labor market has changed dramatically. Globalization, deindustrialization, and technological upgrading in the 1970s and 1980s led to a decline in manufacturing and unionized jobs, and an increase in service and information technology jobs (Wadsworth, 2006). Furthermore, due to economic changes, policy changes, and increased immigration in the 1980s, the value of the minimum wage declined (Bound & Johnson, 1992).

As a result of these changes, the current economy favors educated workers over non-educated workers, therefore putting young adults without a college education, like those in this sample, at a disadvantage at Time 2 and Time 3 when they have left high school and are entering young adulthood. Furthermore, finding a job without a degree tends to be even more difficult during times in which the economy is not booming (Shanahan, Mortimer, & Krüger, 2002). Young adults without post-high school education tend to struggle with employment after high school, moving from job to job in local retail and service sectors, occupying jobs similar to those they had in high school. Attaining full-time jobs with benefits and advancement opportunities is becoming increasingly difficult for young adults (Fussell, 2002). Employers tend to use recent graduates to fill undesirable, nonstandard (e.g., part-time, temporary, on-call) positions (Furstenberg, Rumbaut, & Settersten, 2005; Kerckhoff, 2002). As a result, younger workers tend to have little contact with older, more established

workers (Mortimer, 2003). This may last until young adults' late twenties (Furstenberg et al., 2005; Kerckhoff, 2002). Due to these changes, results from older studies about young adults and their jobs may not be applicable to young adults living in today's economy.

As a result of changes in the economy and the function and characteristics of young adulthood, the nature and meaning of jobs among young adults and adolescents may have become more comparable. Some researchers have demonstrated that adolescent employment, especially long hours, may be associated with deviant behavior (Bachman & Schulenberg, 1993; Mortimer, Finch, Ryu, Shanahan, & Call, 1996; Wright et al., 1997), although this effect sometimes disappears when controlling for selection effects (Apel et al., 2007; Paternoster et al., 2003). Therefore, if types of jobs and the meaning of employment are similar among young adults and adolescents, one might expect work to have similar effects for young adults. The current findings partially support this argument. One of the six work characteristics, wages, was associated with a small increase in delinquency longitudinally. Researchers believe that wages increase engagement in delinquency among adolescents because wages tend to be used for non-essentials such as alcohol and drugs, both of which are positively related to delinquency (Mortimer, 1988). These effects may therefore be explained by preexisting differences in propensity towards delinquency. Wages may therefore function similarly for young adults.

Moreover, the results of this study may indicate that there is no relationship between delinquency and employment for young adults. Apel et al. (2007) and Paternoster et al. (2003) have pointed out that many past researchers have failed to adequately control for selection effects and that the relationship between delinquency and employment may be spurious. In line with these researchers, the present study attempted to control for selection effects and found null relationships for the majority of work quality variables and delinquency.

There are several limitations to consider in interpreting these findings. First, given that delinquency rates and job opportunities vary across time period and context, the results of this study may not be generalizable to other contexts. Secondly, sample attrition may have conservatively biased the impact of work on delinquency. Individuals from populations more at risk for delinquency (e.g., males, high school drop outs)

were more likely to drop out of the study. Therefore, the results of this study may not accurately capture their experiences. In addition, this study controlled rather than examined the relationship between gender, race, ethnicity, and socioeconomic status and either work or delinquency. More direct consideration of these issues is necessary in order to fully understand the meaning of work and delinquency within the lives of young adults.

Furthermore, the findings are limited in terms of suggesting causality. By controlling for Time 1 delinquency and other background characteristics, we interpreted the associations of work quality on delinquency as reflecting the influence of the Time 2 predictor on change in delinquency. However, this study design assumes that the young adult did not have a job or had a different job during the first wave of data collection, and that we adequately controlled for all relevant background characteristics. Furthermore, despite the use of longitudinal data to model causation, it remains impossible to be sure about the direction of causation. More advanced analyses such as mixture modeling, latent growth modeling, and hierarchical linear modeling may be useful in this regard.

Methodological limitations also restrict the interpretation of findings. The data used for this study were limited to self-report measures. Multiple reports from parents, peers, coworkers, and employers would more accurately capture work quality and delinquency constructs. For example, employers' description of a job may more accurately capture the level of social control a job provides. In addition, given the importance of interpersonal relationships in social control theory (Jungner & Marshall, 1997), the lack of relational measures of job quality such as number of prosocial employees may have limited our results.

This study suggests the importance of looking more closely at work and its meaning among young adults working in today's economy. Older studies appear not to capture the lives of young adults today due to the changes that have taken place in the lives and work of young adults, as previous described. It is therefore important to conduct studies to determine the implications of recent changes in the economy to young adults' lives, psychological health, relationships, and work and education pathways, and their impact on trajectories of delinquency. Other facets of young adults' lives may have more potent effects on delinquency than employment, and should be explored in future studies. Furthermore,

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future studies should also examine how these changes vary among groups with different life constraints, including gender and various ethnic, racial, and socioeconomic groups, while at the same time controlling for selection effects.

This study also suggests the importance of examining specific characteristics of work such as future orientation, wages, and stability, rather than examining only employment status. Characteristics of work were not uniformly related to delinquency. Therefore, in order to understand the effects of quality employment, it is important to clarify the meaning of quality employment, and to determine whether certain kinds of jobs have the potential to positively affect young adults' lives. A more sophisticated understanding of job quality may improve our ability to develop programs to prevent delinquency and alter delinquency trajectories. This understanding will also improve our ability to advocate for changes in employment for young adults entering the work force directly from high school. Young adults currently receive little institutional support in finding work (Kerckhoff, 2002; Mortimer & Krüger, 2000; Shanahan et al., 2002). Furthermore, there are even more limited resources available for young adults not attending college for finding work (Heinz, 2003; Kerckhoff, 2002; Osgood, Foster, Flanagan, & Ruth, 2005). The burden of supporting young adults is falling upon families, often families that are struggling themselves (Osgood et al., 2005). Given this lack of support, along with less clear normative developmental milestones for what it means to become an adult (Arnett, 2000), there is a pressing need to look more carefully at the developmental trajectories of young adults as they make their way into adulthood and provide resources and institutional support as needed.

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