

Changes in Parents' Work Status and Adolescents' Adjustment at School

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FLANAGAN, CONSTANCE A., and ECCLES, JACQUELYNNE S. *Changes in Parents' Work Status and Adolescents' Adjustment at School*. CHILD DEVELOPMENT, 1993, 64, 246–257. The effects of change in parental work status on early adolescents' school adjustment before and after the transition to junior high school were examined in a 2-year longitudinal study. Data were gathered from 883 adolescents, their mothers, and teachers. Based on patterns of change or stability in parental work status during the 2 years of the study, 4 groups were compared: deprived, declining, recovery, and stable families. With parents' education controlled, teachers said that adolescents in deprived and declining families were less competent than their peers in stable or recovery families. In addition, adolescents whose parents experienced a decline in work status were the most disruptive in junior high school. While most students had difficulty adjusting to junior high school, the transition was particularly difficult for those students whose parents were simultaneously dealing with changes in work status.

Economic changes over the past decade have undermined the job security of many American workers and have contributed to a decline in income status among a sizable number of families (Dooley & Catalano, 1988; Harrison & Bluestone, 1988). Such changes in job security or income have disruptive effects on marital and parent-child relationships, increasing parents' depression, arbitrary discipline, and conflict with children and decreasing feelings of nurturance and integration in the family (Conger et al., 1990a; Elder, Van Nguyen, & Caspi, 1985; Flanagan, 1990a, 1990b; Lempers & Clark-Lempers, 1990; Lempers, Clark-Lempers, & Simon, 1989; McLoyd & Wilson, 1990; Radin & Harold-Goldsmith, 1989). The loss of a family's income or a parent's security on the job is also associated with children's adjustment problems. Increases in loneliness, depression, and antisocial tendencies and decreases in academic aspirations and self-esteem have been found (Conger, Elder, Melby, Simons, & Conger, 1990b; Elder et al., 1985; Flanagan, 1990b;

Lempers et al., 1989; Silbereisen, Walper, & Albrecht, 1990).

Most of the research on parental unemployment has centered on the disruptive effects of such changes within families. We know less about how changing conditions at a parent's workplace may affect children's behavior in other settings. In this paper we build on the existing literature by linking patterns of change in parental employment to patterns over time in early adolescents' adjustment to school. By employing a longitudinal design we were able to compare normal developmental patterns of adjustment during the transition to junior high school (from sixth to seventh grade) with the patterns for adolescents whose parents were concurrently dealing with a loss of status on the job.

Family Stressors and Adolescents' Social Adjustment at School

Research on stress and competence has focused on adjustment at school because of its relevance to children's lives (Garmezy,

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Masten, & Tellegen, 1984; Pellegrini, Masten, Garnezy, & Ferrarese, 1987). Adaptation to junior high school poses special problems for students due to the multiple changes that occur during this developmental period and to the fact that junior high schools are very different settings from elementary schools (Eccles, Midgley, & Adler, 1984; Simmons & Blyth, 1987). Significant declines in students' achievement as well as in students' and teachers' satisfaction, esteem, and sense of efficacy occur during the transition from elementary to junior high school (Eccles et al., 1990; Feldlaufer, Midgley, & Eccles, 1988; Midgley & Feldlaufer, 1987; Midgley, Feldlaufer, & Eccles, 1989). According to students and independent observers, teacher supportiveness is lower in junior high school (seventh grade) compared to elementary school (sixth grade), and relationships between students and teachers deteriorate after the transition to junior high school (Feldlaufer et al., 1988; Hawkins & Berndt, 1985; Hirsch & Rapkin, 1987). If this downward trend in students' achievement and relationships with teachers is characteristic of the junior high transition, a stable home environment might be important in facilitating a smooth adjustment to school. Conversely, adverse changes or uncertainties at home might intensify the normal difficulties that early adolescents experience during this transition.

The question that we were interested in addressing was the following: Since the early adolescent must adapt to a new school environment and new peer networks, do negative changes in the parents' work status compromise this process? Besides its developmental relevance to early adolescents, we concentrated on social adjustment at school for several reasons. First, such a focus enlarges the developmental framework by linking events that have occurred at the parent's workplace (a setting where children are not present) to the adolescent's adjustment in a setting where the parent is not present (Bronfenbrenner, 1986). Second, gathering data about adjustment at school means that the teacher can act as an independent informant, one who is not a member of the family system and whose observations should be unbiased by knowledge of the parents' work situation. The use of teachers' reports alleviates one of the common biases of much of the work on economic change and children's adjustment—that is, that the parents or the adolescent are often the sole reporters of both the independent and the

dependent measures (economic changes, family stress, and adolescent adjustment). To control for respondent bias, we have relied on parents' reports of changes in work status but have used teachers and students to provide independent sources of information about adolescents' social adjustment at school.

Social Adjustment at School

Based on other work which found that a family's economic decline was related to an adolescent's depression but not to his or her grades in school (Clark-Lempers, Lempers, & Netusil, 1990), we chose indicators of social adjustment and not academic achievement. Rather than settling on simple measures of a global construct like adjustment to school, we felt that it was important to use conceptually different measures from different informants. Two outcomes and two independent sources of information (teachers' reports and self-reports) were used to assess adolescents' adjustment in the sixth and then in the seventh grade. Teachers assessed the adolescents' social competence, and adolescents reported on their own disruptive behavior at school. These indicators of adjustment are similar to the constructs of engagement (the quality of a student's involvement with peers and activities) and disruptiveness (the extent to which a student is aggressive and oppositional) used in other work as indicators of adaptation to school (Garnezy et al., 1984).

Social competence as it is used in this study is based on the concept of social tasks—that is, adjustment defined in terms of relevant social tasks in particular developmental settings, in this case, the school. Significant others in those settings, such as teachers, are considered reliable sources for evaluating an individual child's success in negotiating the relevant tasks (Dodge & Murphy, 1984). Items tapping social competence assess the adolescent's ability to get along with peers and to handle stress and frustration at school. In contrast, disruptiveness reflects poor adaptation to the school environment, specifically, the tendency to act out in a noncooperative, aggressive manner in class. Although disruptiveness as we have operationalized it is not as extreme as delinquent behavior, a positive relation between economic stress and adolescents' anti-social behavior, delinquency, and drug use has been found in other work (Conger et al., 1990b; Lempers & Clark-Lempers, 1990; Werner & Smith, 1982). Like other stressors, disruptions in the security of a parent's work

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or a family's income can compromise parents' capacity to monitor and supervise their children and thus place children and adolescents at risk for delinquency and susceptibility to peer pressure (Loeber & Dishion, 1983; Patterson, DeBaryshe, & Ramsey, 1989; Steinberg, 1987).

The following hypotheses, derived from empirical work on the junior high school transition and on family stress and children's adjustment, were tested in this study. First, consistent with other literature on the junior high transition, we expected a developmental decline in adjustment between the sixth and seventh grades (i.e., a decrease in competence and an increase in disruptiveness). Second, we expected that negative changes in parental work status (e.g., temporary or permanent layoffs, job demotions) would be associated with early adolescents' adjustment problems at school. Our third hypothesis was based on Coleman's (1989) focal theory, which holds that individuals experience stress when they have to negotiate several changes simultaneously. This suggests that if a family was dealing with a decline in parental work status during the same period that the adolescent was making the transition from elementary to junior high school, the normal difficulties associated with the transition would be intensified. Finally, we expected that boys would exhibit more adjustment problems at school than girls, and that negative changes in parental work status would exacerbate this sex difference.

Empirical support for the differential risks of economic changes in the family for sons and daughters has been mixed, possibly due to the different indicators of adjustment used in various studies. Economic declines and parental unemployment have been associated with high levels of conflict between adolescent sons and their parents, with a tendency for sons to reject fathers and turn to peers, and with more delinquency and drug use among adolescent boys versus girls (Elder et al., 1985; Flanagan, 1990a; Lempers & Clark-Lempers, 1990). In contrast, depression, loneliness, pessimism about the future, and a sense of personal inadequacy tend to be reactions of daughters in financially pressed families, but are not found among sons (Elder et al., 1985; Galambos & Silbereisen, 1987; Lempers & Clark-Lempers, 1990). In sum, boys may act out, whereas girls may internalize their reactions to these family stressors. Since adjustment was measured with indicators of overt social

behaviors at school, we expected that girls would have fewer problems than boys, and that this difference would be intensified in families that experienced a negative change in parental work status.

Method

Sample

Data were obtained from a 2-year, four-wave study of early adolescents investigating the effects of normative environmental transitions (e.g., the move to junior high school) on early adolescent adjustment (Eccles, 1988). The study was conducted in 12 working- and middle-class communities where the official unemployment statistics at Wave 1 (1983) ranged between 7.9% and 21%. Cases were selected for inclusion in this study if data from mothers and adolescents obtained in the fall of the child's sixth and in the spring of the child's seventh grade and from the sixth- and seventh-grade teachers were complete. Approximately 96.7% of the sample included in the present study were white, 1.5% African-American, and 1.8% other minorities. According to mothers, 81.7% were married, 8.5% remarried, and 9.8% were divorced, separated, or widowed. Family size ranged from one to nine children; 9.4% of the families had one child, 46.5% two, 27.8% three, and the rest had four or more children. The mean age of students at Time 1 was 11 years, 5 months, and there were 432 girls and 451 boys in the study.

Procedure

Project staff described the study to teachers and sixth graders in their classrooms. A permission letter describing the study was sent home to parents. Participating parents were mailed questionnaires with return postage envelopes. Seventy-one percent of the families and 95% of the teachers completed questionnaires at Time 1. Under the supervision of project staff, questionnaires were group administered to the adolescents in their classrooms while teachers completed individual assessments of each student.

Although the Transitions study was a four-wave design, measures of school adjustment and parental work status were not taken at all waves. For this reason, the present study is confined to Waves 1 (fall of the sixth grade) and 4 (spring of the seventh grade) when these measures were taken. For clarity, these times of measure will be referred to as Time 1 (before the transition to

junior high school) and Time 2 (post-junior high school transition) for the remainder of this paper.

Independent Measures

Parents' work status.—Economic recessions have a broad and diverse impact on working adults. The burden of the recession on individuals may take the form of wage and salary cutbacks, deskilling of jobs, or layoffs of a temporary or more permanent nature. Each of these changes, particularly in the context of an uncertain economy, may be stressful for individuals and their families. As others conducting research on economic change and psychological adjustment have done (Kessler, Turner, & House, 1989; Liem & Liem, 1989), we measured work status based on patterns of change in that status (i.e., demotion, layoff, or reemployment) over the 2-year period of the study rather than as a simple status at one point in time. Families were coded into one of four parental work status categories based on the mother's response at Time 1 and Time 2 to the following question: "During the last 2 years, has your family experienced any of the following: a permanent layoff, a temporary layoff, a job demotion, or a rehiring?" Comparing Time 1 with Time 2 reports yielded the following categories: the *deprived* group reported permanent layoffs during the 2 years of the study ($N = 95$); the *declining* group ($N = 104$) experienced a layoff or demotion between Times 1 and 2; the *stable* group were families who reported no layoffs or demotions at either time of measure ($N = 550$); the *recovery* group were families who reported a layoff or demotion at Time 1 and reemployment at comparable jobs at Time 2 ($N = 134$). We were able to identify which parent experienced the change in work status for 94 of the declining families (among two-parent families there were 50 fathers, 32 mothers, 5 families in which both parents' status declined, and in single-parent families 7 mothers reported a decline); 93 of the deprived families (64 fathers, 10 mothers, and 8 in which both parents in two-parent households experienced a long-term layoff and 11 single-parent mothers); and only 49 of the recovery families. Based on the premise that families ex-

perience stress when they are faced with a disparity between their former assumptions and new realities (Moen, Kain, & Elder, 1983), we coded an involuntary negative change in "parental" work status regardless of which parent experienced the change.¹

A description of the sample by categories of parental work status is provided in Table 1. As the results show, work status and family income were strongly related at both times. The stable group had significantly higher and the deprived group significantly lower incomes than any other group. While there were no income differences between the declining and recovery groups at Time 1, there was a difference between these groups at Time 2 due to a significant increase for the recovery families. Similar associations were found between parental work status and the adolescent's subjective worries about their family's finances. At Time 1, adolescents in stable families reported significantly less worry than the other three groups. By Time 2, the financial boost for the recovery families was obvious in the adolescents' reports of financial concerns: their concerns had declined to the point where there was no longer a significant difference between the stable and recovery groups. Chi-square tests of independence revealed no relation between parental work status and family structure. However, there was a relation between parental work status and race, $\chi^2(6, N = 883) = 15.81, p < .02$: minorities were overrepresented in the group whose status declined during the study.

In order to test for bias due to attrition between Times 1 and 2, we compared families who met the criteria for inclusion in the study at Time 1 and later dropped out with those that were still present at the end of the study. Within-group comparisons were made based on the reports of stability or loss in status at Time 1. As the comparisons presented in Appendix Table A1 show, there were some consistent patterns that distinguished the attrition group from the families that remained in the study. Regardless of the parents' work status at Time 1, sample attrition was related to race, marital status, and

¹ We hypothesized no differential effects of mother's versus father's change in work status. Analyses comparing mothers versus fathers in two-parent families in the declining and deprived groups were done. These showed that, when there were effects for one or the other parent, the negative effects on adjustment were stronger when mothers, not fathers, reported a loss of status. These results are consistent with contemporary literature on unemployed adults that challenges the myth of "benign stress" associated with women's unemployment (Banks & Jackson, 1982; Romero, Castro, & Cervantes, 1988).

TABLE 1
CHARACTERISTICS OF THE FOUR FAMILY WORK STATUS GROUPS

| CHARACTERISTICS | PARENTAL WORK STATUS | | | | | | | |
|---|----------------------|------|------------------------|------|-----------------------|------|----------------------|------|
| | Stable (n = 550) | | Declining (n = 104) | | Recovery (n = 134) | | Deprived (n = 95) | |
| | M | SD | M | SD | M | SD | M | SD |
| Parents' education ^a | 4.04 _a | 1.16 | 3.75 _b | 1.37 | 3.53 _{b,c} | .97 | 3.38 _c | 1.05 |
| Family income time 1 ^b | 4.09 _a | 1.08 | 3.38 _b | 1.15 | 3.35 _b | 1.04 | 2.71 _c | 1.17 |
| Family income time 2..... | 4.26 _a | 1.05 | 3.43 _b | 1.28 | 3.76 _c | 1.06 | 3.03 _d | 1.30 |
| Number of children..... | 2.61 | 1.15 | 2.75 | 1.33 | 2.63 | 1.19 | 2.54 | 1.07 |
| Adolescent's report of: | | | | | | | | |
| Financial worries Time 1.. | 2.64 _a | 1.05 | 2.97 _b | 1.08 | 3.02 _b | 1.03 | 3.29 _c | .86 |
| Financial worries Time 2.. | 2.52 _a | 1.06 | 2.86 _{b,c} | 1.13 | 2.70 _{a,b} | 1.02 | 3.12 _c | .97 |
| Race: | | | | | | | | |
| Caucasian (%)..... | 97.6 | | 91.2 | | 96.3 | | 97.9* | |
| Afro-American (%)..... | .9 | | 2.9 | | 3.0 | | 1.1 | |
| Other minorities (%)..... | 1.5 | | 5.9 | | .7 | | 1.1 | |
| Marital status: | | | | | | | | |
| Married (%)..... | 82.9 | | 74.0 | | 83.6 | | 78.9 | |
| Remarried (%)..... | 7.1 | | 10.6 | | 6.0 | | 10.4 | |
| Single parent (%)..... | 10.0 | | 15.4 | | 10.4 | | 13.7 | |

NOTE.—Means with different subscripts differ significantly at $p < .05$ or stronger.

^a Response options: 1 = grade school, 2 = some high school, 3 = high school diploma, 4 = some post-high school training, 5 = B.A., 6 = some graduate school, 7 = M.A., 8 = Ph.D./professional.

^b Scale (\$10,000 increments): 1 = under \$10,000, to 5 = over \$40,000.

* $p < .05$.

mother's employment status. There were more minorities, single-parent and blended families, and working mothers among the group who dropped out of the study. In addition, among families who reported stable work status at Time 1, there were significant differences between those who remained or dropped out of the study. Those who dropped out had lower family incomes and levels of parent education and more financial worries reported by the adolescent.

Parents' education.—An average of the mother's and father's educational level, measured at Time 1, was used as an index of family background. Since individuals with fewer skills and lower levels of education are at greater risk for dislocation during periods of recession, we expected that changes in work status would be related to the mean level of parents' education. An analysis of variance indicated a significant association between parents' average education and the categories of work status, $F(3, 879) = 14.83$, $p < .0001$. On a scale of 1 to 8, the mean levels of parent education were 4.04 (SD = 1.16), 3.75 (SD = 1.17), 3.54 (SD = .97), and 3.38 (SD = 1.05), respectively, for the stable, declining, recovery, and deprived groups. Parents in the stably employed

group had higher levels of education than any other group, and parents in the declining group were better educated than those in deprived families. No other between-group differences were significant. Given the association of parental education with the categories of work status, parents' mean education was used as a covariate to control for family background in later analyses.

Dependent Measures

Adolescent's social competence.—As part of an individual assessment of students, the sixth- and seventh-grade teachers were each asked four items (on a Likert-type scale with 1 = never to 4 = always) about the adolescent's ability to get along with peers and to handle stress and frustration in the classroom. The student's social competence score was the average of these four items. Cronbach's alpha was .76 for the sixth- and .70 for the seventh-grade teachers' assessments. Teachers' assessments of students' social skills as well as their problem behaviors correlate reliably with sociometric measures of children's social competence, as well as with parents', mental health workers', and independent observers' ratings (Achenbach, McConaughy, & Howell, 1987; Hoge & Coladarci, 1989; Hoge & McKay,

1986). The validity of our measure is indicated by its negative correlations with the teacher's report that the student was a discipline problem ($r = -.49, p < .0001$) and that emotional problems interfered with his or her academic performance ($r = -.35, p < .0001$) and its positive correlation with the seventh-grade teacher's assessment that the student had made a smooth adjustment to junior high school ($r = .60, p < .0001$).

Adolescent's reports of disruptiveness at school.—The second measure was based on the adolescent's report of how often (during the past 3 weeks) he or she had engaged in four disruptive behaviors at school: punching another student, writing on school property, disrupting or wising off in class, and refusing to work. An individual's score was based on an average of the four items, with high scores indicating more frequent disruptiveness. These items have been established as valid measures of adolescents' disruptiveness at school in other research (Kulka, Klingel, & Mann, 1980). In this study, the student's self-report of disruptiveness was positively correlated with the teacher's report that the student was a discipline problem ($r = .36, p < .0001$) and negatively correlated with the teacher's assessment of the student's social competence ($r = -.25, p < .0001$). Cronbach's alpha for this four-item index was .77 in the sixth and .77 in the seventh grade.

Analysis Plan

MANCOVA and ANCOVAs with repeated measures were used to analyze the data. A 4 (parental job status) \times 2 (child sex) repeated-measures MANCOVA with time of measurement and source of information as the repeated factors and parents' average education as the covariate was performed. Note that the use of the MANCOVA is a very stringent test in this case. Not only are the dependent measures reported by different informants, but the measures themselves are quite distinct indicators of social adjustment at school.

Results

The MANCOVA revealed significant effects of student's sex, $F(1, 877) = 53.81, p < .0001$; time, $F(1, 877) = 3.56, p < .05$; and source of information (teacher/student), $F(1, 877) = 10.39, p < .01$. There were also significant interactions of the within-subjects factor, source of information, with parental work status, $F(3, 877) = 2.57, p < .05$, and sex of student, $F(1, 877) = 75.69, p < .0001$.

Teachers' Assessments of Adolescents' Social Competence

The ANCOVA for teachers' assessments of adolescents' social competence revealed significant main effects of student's sex, parental work status, and time of measurement and an interaction of parental work status with time. Simple effects tests indicated that teachers considered girls ($M = 2.59, SD = .30$) more competent than boys ($M = 2.46, SD = .36$), $F(1, 877) = 33.41, p < .0001$. In addition, controlling for the significant effect of parents' education on this outcome, teachers rated the students in stable families more competent, on average ($M = 2.55, SD = .33$), than their peers in declining ($M = 2.44, SD = .36$) or deprived ($M = 2.47, SD = .37$) families, $F(3, 877) = 4.13, p < .01$.

As expected, there was an effect of time on teachers' assessments of students' social competence: seventh-grade teachers rated students significantly lower ($M = 2.49, SD = .40$) than the sixth-grade teachers had rated these same students ($M = 2.55, SD = .42$) in the prior year. Besides the main effect of time, there was a time \times parental work status interaction. Repeated-measures ANCOVAs conducted separately for each work status group revealed a decline between the sixth and seventh grades for adolescents in the stable, $F(1, 548) = 15.90, p < .001$ and declining, $F(1, 102) = 5.17, p < .025$ groups, but no effect of time for adolescents in the recovery or deprived families.

A comparison of the mean social competence scores of the four groups in the sixth and in the seventh grades is presented in Table 2. As the results show, sixth-grade teachers rated the students from stable families as more competent compared to their peers in the other three groups, but seventh-grade teachers did not. Consistent with the negative attitudes toward students found among junior high school teachers in other research (Feldlaufer et al., 1988; Hawkins & Berndt, 1985; Hirsch & Rapkin, 1987), these results show a decline between elementary and junior high school in teachers' assessments for the largest group of students in the study (i.e., those in stably employed families). A comparison between groups in junior high school revealed that seventh-grade teachers assessed students in the declining families as significantly less competent than their peers in stable, $F(1, 871) = 8.91, p < .01$ or recovery, $F(1, 871) = 7.20, p < .01$ families. The drop between the sixth and seventh grades made this group the least competent of any group in junior high

TABLE 2

RELATION OF PARENTAL WORK STATUS TO STUDENT'S ADJUSTMENT AT SCHOOL BEFORE AND AFTER THE TRANSITION TO JUNIOR HIGH SCHOOL

| ADJUSTMENT MEASURES | PARENTAL WORK STATUS | | | |
|---|-----------------------------|--------------------------------|-------------------------------|------------------------------|
| | Stable (<i>n</i> = 550) | Declining (<i>n</i> = 104) | Recovery (<i>n</i> = 134) | Deprived (<i>n</i> = 95) |
| Teacher's assessments of student's social competence: | | | | |
| Pretransition: | | | | |
| <i>M</i> | 2.59 _a | 2.49 _b | 2.50 _b | 2.48 _b |
| <i>SD</i> | .41 | .45 | .42 | .43 |
| Posttransition: | | | | |
| <i>M</i> | 2.51 _a | 2.39 _b | 2.52 _a | 2.46 _{a,b} |
| <i>SD</i> | .38 | .41 | .40 | .45 |
| Adolescents' reports of disruptive behavior: | | | | |
| Pretransition: | | | | |
| <i>M</i> | 2.45 | 2.54 | 2.37 | 2.72 |
| <i>SD</i> | 2.05 | 2.16 | 1.88 | 2.38 |
| Posttransition: | | | | |
| <i>M</i> | 2.65 _a | 3.33 _b | 2.69 _a | 2.92 _{a,b} |
| <i>SD</i> | 2.19 | 2.82 | 1.96 | 2.60 |

NOTE.—Adjusted means with different subscripts differ significantly at $p < .05$ or stronger.

school. In contrast, since the students in stable families had the highest scores in the sixth grade, the drop associated with the transition to junior high school meant that they were more similar to their peers after the transition.

There were no effects of time for adolescents in recovery or deprived families, and both of these groups were quite similar to the stable group in the seventh grade. Finally, although there was a main effect of sex, there was no interaction of sex with parental work status on teachers' assessments of adolescents' social competence.

Adolescents' Disruptive Behavior

The repeated-measures ANCOVA revealed main effects of child sex, of time, and an interaction of parental work status with time on disruptiveness. Boys ($M = 3.10$, $SD = 2.12$) reported more disruptiveness than girls ($M = 2.12$, $SD = 1.40$), $F(1, 877) = 65.66$, $p < .0001$, and disruptive behaviors increased between the sixth ($M = 2.48$, $SD = 2.08$) and seventh grades ($M = 2.77$, $SD = 2.30$). An interaction of time with work status was obtained. Repeated-measures ANCOVAs conducted separately for each work status group revealed increases between the sixth and seventh grades for adolescents in the stable, $F(1, 548) = 4.12$, $p < .05$, declining, $F(1, 102) = 8.42$, $p < .01$, and

recovery, $F(1, 132) = 4.56$, $p < .05$ groups. As the results of the simple effects tests in Table 2 show, there were no effects of parental work status on disruptiveness in the sixth grade; however, consistent with the results for social competence, adolescents in declining families reported significantly more disruptiveness in the seventh grade compared to peers in stable, $F(1, 871) = 8.09$, $p < .01$ or recovery, $F(1, 871) = 4.82$, $p < .05$ families.

Subsequent to these analyses, additional tests were performed on a subset of the cases in the study (38 cases had missing data on Time 1 income) to assess whether the family's income level accounted for the effects of parental job status on the adolescent outcomes. MANCOVA with repeated measures using family income at Time 1 as a covariate and dummy variable multiple regression procedures to assess the effects of parents' changing job status with or without Time 1 income as a control variable were used.

The MANCOVA revealed significant effects of student's sex, $F(1, 839) = 56.32$, $p < .0001$; source of information (teacher/student), $F(1, 839) = 21.42$, $p < .0001$; and time, $F(1, 839) = 15.57$, $p < .0001$. The test also revealed interactions of the source of information with students' sex, $F(1, 839) =$

TABLE 3

EFFECTS OF PARENTAL WORK STATUS ON ADOLESCENT ADJUSTMENT WITH AND WITHOUT TIME 1 INCOME CONTROLLED

| DEPENDENT VARIABLES | PREDICTORS OF ADJUSTMENT | | | | |
|--|--------------------------|----------|----------|---------------------|---------------|
| | Decline | Recovery | Deprived | Gender ^a | Time 1 Income |
| Teachers' assessment of social competence: | | | | | |
| Time 1..... | -.08* | -.09** | -.10** | -.16**** | |
| | -.05 | -.05 | -.04 | -.16**** | .17**** |
| Time 2..... | -.10** | -.005 | -.05 | -.14**** | |
| | -.08* | .02 | -.02 | -.14**** | .10** |
| Adolescents' reports of disruptiveness: | | | | | |
| Time 1..... | .02 | -.01 | .05 | .25**** | |
| | .007 | -.03 | .02 | .25**** | -.06 |
| Time 2..... | .10** | .02 | .05 | .22**** | |
| | .07* | -.01 | .005 | .22**** | -.14*** |

NOTE.—N = 845.
^a Male.
 * $p < .05$.
 ** $p < .01$.
 *** $p < .001$.
 **** $p < .0001$.

76.76, $p < .0001$; with income, $F(1, 839) = 14.92$, $p < .0001$; and with time, $F(1, 839) = 11.60$, $p < .001$; and an interaction of income with time, $F(1, 839) = 6.96$, $p < .01$. With Time 1 income as a covariate, there were no effects of parental work status on the outcomes in this subset of cases.

Table 3 presents the results of the regression of each dependent variable on parental work status and student's sex, with or without controls for income at Time 1. As the results show, family income has a significant effect on teachers' assessments at both times of measure and on students' reports at Time 2. There are negative effects of each work status (relative to the stable group) on teachers' reports at Time 1 when income is not controlled. However, if parents' work status declined during the study, there was a negative effect on teachers' and students' reports at Time 2, even with income controlled. Parents in the declining group were the only ones whose work status worsened between the two times of measurement (and whose Time 2 income did not improve relative to Time 1—see Table 1), and this is the only group of adolescents for whom work status had a negative impact on adjustment at Time 2. In sum, although family income data are not available for the whole sample, we expect that the negative effects of unemployment or job demotion on adolescents' adjustment are, in large part,

due to a decline in the family's standard of living.

Discussion

Theories of stress and coping suggest that children can cope relatively well with single stressors, but the risks to development increase considerably when they face several changes simultaneously (Coleman, 1989; Simmons & Blyth, 1987). Simmons and Blyth (1987) have shown that the early adolescent's adjustment during the transition to junior high school is most problematic for those students who are simultaneously negotiating other physical changes or social demands. For some adolescents in our sample, the transition to junior high school occurred at the same time that their parents were coping with insecurities at their workplace, and the results suggest that developmental difficulties associated with this school transition may be exacerbated under these conditions. According to teachers, adolescents in deprived and especially in declining families exhibited significantly lower social competence than their peers in stable or recovery families. Moreover, a decline in parental work status that occurred during the same period that the adolescent made the transition to junior high school was associated with an increase in school adjustment problems between the sixth and seventh grades. After the transition to junior

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high school, adolescents in the declining families had the lowest levels of social competence of any group.

Consistent with other work showing increases in teacher-student tension following the transition to junior high school (Feldlaufer et al., 1988; Hawkins & Berndt, 1985; Hirsch & Rapkin, 1987; Miller-Buchanan et al., 1990), seventh-grade teachers considered students less competent than the sixth-grade teachers had rated them in the prior year. The drop was especially marked for the stable group, which may reflect the large size of this group relative to the others. Nonetheless, despite this drop in competence, students in the stable families were judged more competent in junior high school relative to their peers in the declining families.

There was also a developmental decline between elementary and junior high school indicated by students' increased disruptive behavior at school. All students reported more disruptiveness after the transition, although the increase did not reach significance for students in deprived families. While there were no differences between groups in the sixth grade, students in declining families were the most disruptive group in the seventh grade. In sum, based on teachers' assessments and self-reports, students in the declining families had the most difficult time adjusting to junior high school.

These results were obtained with parents' educational level controlled, suggesting that they were not simply artifacts of the adolescent's family background. In fact, parents in the declining families were better educated than those in the deprived and as well educated as those in the recovery group; yet their children had the most adjustment problems of any group in junior high school. Families in the declining category were the only ones whose work status deteriorated and whose income showed no increase between Times 1 and 2. Although the declining group's mean income at Time 1 was significantly higher than that of the deprived group, their drop in status was associated with more problems at school for their junior high school children, even when Time 1 income was controlled.

One interpretation of the stronger effects for the declining compared to the deprived families is that recent or sudden changes in parents' job security may be more disruptive in the short run for families. Al-

though the absolute level of income for this group was not as low as the deprived group's, they were worse off in terms of both income and security relative to their accustomed standards. We do not infer from these results that a drop in income, regardless of the level of family income, is more deleterious than poverty for children. The daily deprivation that poor families face is likely to have more enduring consequences for children, especially if families learn a "resigned adaptation" to their deprived state and lower their goals and aspirations for their children (Warr, Jackson, & Banks, 1988).

Although there was a main effect of sex on adjustment, the hypothesis that family hardship would have more negative implications for boys was not confirmed. Possibly, the very powerful main effect of sex on both measures of adjustment masked any potential interaction effects. This lack of an interaction is consistent with results obtained by Conger et al. (1990b), who found no differential effects of economic constraints on early adolescent boys' or girls' antisocial behavior. Neither the Conger et al. measure of antisocial behavior nor our measure of disruptiveness included extreme acts of aggression. If economic strains in the family have differential effects on girls' and boys' aggressiveness, perhaps more extreme measures might be indicated in future research.

There were certain shortcomings of this study, such as the lack of family process variables that may have accounted for the relations between work status and adjustment. We can only speculate, based on other research, that family stressors such as job demotion or job or income loss undermine parents' effectiveness as agents of socialization, and that the disruption of family processes is the link between economic changes and adolescents' adjustment problems at school (Conger et al., 1990b; Patterson et al., 1989). Attrition was also a problem in this study, as it tends to be in longitudinal research. While the loss of subjects suggests that caution should be exerted in interpreting the results, we expect that if there were demonstrable associations of parental work status with adolescent adjustment for the more "resilient" families who remained during the 2 years of the study, the impact would be at least as strong for those families who dropped out of the study.

Several strengths of the study should be noted as well, especially given the difficul-

ties inherent in research attempts to link macro-level changes in society to micro-level developmental processes. The longitudinal design of this study meant that working could be conceptualized in a more dynamic way than it is usually dealt with as a part of the family's "social address" (Bronfenbrenner, 1986). Furthermore, studying adjustment before and after the junior high transition meant that we could compare normative developmental change during the early adolescent period with developmental patterns for adolescents "at risk" due to a changing economy. By adding indicators of change in parents' lives to a study of adolescent development, we were able to study development within a larger social ecology (Bronfenbrenner, 1979) and to study social change as it was occurring. As the archival analyses of the Oakland Growth and Berkeley Guidance studies from the Great Depression have shown, the impact of labile events in communities on children and fami-

lies can be uncovered in the course of conducting research on normal development (Elder, 1974).

Given the climate of economic change in the United States and abroad, we can expect increasing numbers of people to face dislocations from their jobs in the future (Dooley & Catalano, 1988). In fact, as this paper was being completed, General Motors announced plans to close several large plants in the communities where these data were collected. While research on the effects of unemployment on adults has grown in the last decade, we know less about how changing economic trends affect the development of children and adolescents (McLoyd, 1989). This study suggests that a changing economy may pose additional risk factors for families and may intensify adjustment problems associated with normal transitions in development.

Appendix

TABLE A1
COMPARISON OF 883 STUDY CASES WITH 896 DROP-OUT CASES BY WAVE 1 FAMILY WORK STATUS

| MEASURES | WAVE 1 FAMILY WORK STATUS | | | | | | | |
|---|---------------------------|------|-----------------------|---------|---------------------|------|-----------------------|---------|
| | Loss of Work Status | | | | Stable Work Status | | | |
| | Remain (n = 225) | | Drop Out (n = 282) | | Remain (n = 628) | | Drop Out (n = 614) | |
| | M | SD | M | SD | M | SD | M | SD |
| Parents' education ^a | 3.47 | 1.06 | 3.45 | .98 | 4.02 | 1.15 | 3.81 | 1.14** |
| Family income ^b | 3.09 | 1.13 | 2.90 | 1.24 | 4.02 | 1.11 | 3.81 | 1.18** |
| Number of children..... | 2.63 | 1.14 | 2.70 | 1.08 | 2.61 | 1.18 | 2.74 | 1.25 |
| Adolescent's report of financial worry..... | 3.16 | 1.03 | 3.17 | .97 | 2.66 | 1.06 | 2.85 | 1.00** |
| Race: | | | | | | | | |
| Caucasian (%)..... | | 96.5 | | 89.9** | | 96.8 | | 92.4*** |
| African-American (%)..... | | 2.4 | | 5.8 | | 1.1 | | 4.5 |
| Other minorities (%)..... | | 1.2 | | 4.3 | | 2.1 | | 3.1 |
| Marital status: | | | | | | | | |
| Married (%)..... | | 82.4 | | 66.7*** | | 81.2 | | 73.2** |
| Remarried (%)..... | | 5.9 | | 14.0 | | 8.0 | | 10.0 |
| Single parent (%)..... | | 11.8 | | 19.4 | | 10.8 | | 16.8 |
| Mother's employment status: | | | | | | | | |
| Employed full time (%)..... | | 27.0 | | 39.1** | | 28.2 | | 34.3* |
| Employed part time (%)..... | | 27.4 | | 22.8 | | 27.8 | | 23.3 |
| Homemaker full time (%)..... | | 45.6 | | 38.0 | | 44.0 | | 42.4 |

^a Response options: 1 = grade school, 2 = some high school, 3 = high school, 4 = some college/technical, 5 = B.A., 6 = some graduate school, 7 = M.A., 8 = Ph.D./professional.
^b Scale (\$10,000 increments): 1 = under \$10,000, to 5 = over \$40,000.
 * $p < .05$.
 ** $p < .01$.
 *** $p < .001$.

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