

TABLE 2  
 Descriptive Information And Behavioral Outcomes Of Dichotomous Variables Analyzed By  
 Maternal Work Patterns, Full-time (FT) or Part-time/Not Employed Outside The Home (PT).

<u>Chi-Square</u>	<u>Frequency</u> <u>YES\NO</u>	<u>Variable</u>
.90	10\67 6\77	School Absence FT PT\None
.18	9\68 7\76	Family Problems FT PT\None
.22	8\69 2\78	Legal Problems FT PT\None
.43	0\77 2\81	Medical Problems FT PT\None
.20	6\71 4\79	Require Counseling/ Therapy FT PT\None
.21	14\63 12\72	Family Require Counseling\Therapy FT PT\None
.26	29 33	Usage At Home FT PT\None
.10	42 48	Usage At Friends' Home FT PT\None

DOCUMENT RESUME

ED 322 412

CG 022 683

AUTHOR Hillman, Stephen B.; And Others  
 TITLE Effects of Maternal Employment on Adolescent Substance Use.  
 PUB DATE Aug 90  
 NOTE 12p.; Paper presented at the Annual Convention of the American Psychological Association (98th, Boston, MA, August 10-14, 1990).  
 PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.  
 DESCRIPTORS Adolescents; Drinking; \*Drug Use; \*Employed Women; High Schools; \*High School Students; Marijuana; \*Mothers; Smoking; \*Student Behavior; \*Substance Abuse

ABSTRACT

As levels of maternal employment increase (71% for mothers with school-age children), there is concern for both the short- and long-term consequences of maternal employment on children and families. This study examined the influence of maternal employment in two-parent families on the substance use of adolescents. Subjects were male and female high school students (N=161) who had fathers working full-time and mothers working full-time (N=77), or fathers working full-time and mothers working part-time or not employed outside the home (N=84). Subjects completed a 48-item survey in which they described their alcohol, cigarette, and marijuana use, and mother/father employment patterns. Subjects also reported their frequency of extracurricular activities and sources of income in order to increase understanding of the influence of after school activities on adolescent substance use behaviors. The results revealed no significant effect of maternal employment on adolescent substance use. (Author/NB)

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EFFECTS OF MATERNAL EMPLOYMENT ON ADOLESCENT SUBSTANCE USE\*

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\* Paper presented at the 98th Annual Meeting of the American Psychological Association, Bos-  
ton, MA, August, 1990. Correspondence regarding this research should be addressed to the first  
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Sunday, August 12, 1990 (8:00 - 9:50 a.m.)

CG 022683

## EFFECTS OF MATERNAL EMPLOYMENT ON ADOLESCENT SUBSTANCE USE

### Abstract

Increasing levels of maternal employment (71% for mothers with school-age children) presented researchers with a "natural experiment of enormous proportions". Great concern exists for both the short and long-term consequences of this phenomenon on children and families. This research examined the influence of maternal employment in two-parent families on the substance use of adolescents. Male and female (N=190) high school students completed a 48-item survey in which they described their alcohol, cigarette and marijuana use, and mother/father employment patterns. Results showed no significant effect of maternal employment on adolescent substance use.

## EFFECTS OF MATERNAL EMPLOYMENT ON ADOLESCENT SUBSTANCE USE

The American family of the 1970s, 1980s, and likely 1990s is a dual-wage earner family. For two-parent families with school-age children the current rate of maternal employment is 71% (Hoffman, 1989). At the turn of the century only 20% were working outside the home. Of women in the prime working years of 25 to 54, 72.3% were in the labor force in 1988 (Green & Epstein, 1988). This figure is expected to grow to approximately 80% by the year 2000. This "natural experiment of enormous proportions" as labeled by Matthews and Rodin (1989) has stimulated increased research and great public and policy concern (Scarr, 1984). One of the primary areas of concern has been for the short and long term consequences of maternal employment on children and families.

Most of the research on this topic has focused on families with infants or young children. Although maternal employment was assumed to have negative effects on children, in the majority of studies few consistent differences emerged (Hoffman, 1984). In most studies of mother-infant attachment, for example, no significant differences between full-time employed mothers and single-wage families were found (Chase-Lansdale & Owen, 1987).

Research studies resulting in significant differences have frequently supported the following: less restricted sex role views (Weintraub, Jaeger, & Hoffman, 1988); greater independence training of children by employed mothers than by non-employed mothers (Hoffman, 1989); less compliance and greater peer orientation of children whose mothers were employed (Hoffman, 1984).

Despite these findings, there continues to be an intense ongoing debate about the possible negative side effects of mothers' employment on child development (Scarr, Philips, & McCartney, 1989; Darnton, 1990). While the assumed "straightforward results of bad emotional, social, and intellectual outcomes for children of working mothers were not found, no research can rule out yet unstudied subtleties" (Scarr, 1984, p. 25).

Adolescence is a transitional time with many maturational tasks and accompanying risks. Many studies have documented the increase of such behaviors during this developmental period (e.g., motor vehicle deaths among adolescents account for 40% of the deaths for white males in the age group; 71% of a national sample of adolescents report using alcohol, 32% report using marijuana) (Jessor, 1984). Adult monitoring and supervision of such activities has often been suggested to be an important deterrent to deviance in general (Dornbusch et al., 1985; Patterson & Stouthamer-Loeber, 1984) and substance use in particular (Dishion & Loeber, 1985).

### Purpose Of The Study

The developmental and role transitions of adolescence when accompanied by a decrease in parental control and monitoring (as defined as dual wage-earner families in this study) may place these adolescents at greater risk for problem behaviors (Richardson et al., 1989). Thus, it was the purpose of this research to study the influence of maternal employment on adolescent substance use.

### Method

A 48-item survey instrument was completed by 190 male and female 9th - 12th grade high school students from a predominately middle class Detroit area suburban high school. The literature on survey methodology points out the value of this approach in collecting factual data. For example, Brown (1983) argued, "The individual is in the best position to observe, describe,

and report upon his or her own behavior" (p. 360). In order to minimize the effects of such issues as faking responses, errors of central tendency, leniency, and severity, and so forth, the survey was prepared by following the seven step process described by Borg and Gall (1989). This systematic approach to construction is designed to maximize the psychometric properties of the survey.

Among other questions, and as part of a larger study, the results of which have been reported elsewhere (Hillman et al., 1990), subjects were specifically asked about their substance use behavior during the last year (i.e. frequency of the use of alcoholic beverages -- beer/wine/liquor, cigarettes, and marijuana, ranging from never to 7 days/week), and about the work behavior of their mothers and fathers (i.e. did the mother work full-time, part-time, not employed outside the home or homemaker; the same question was asked for fathers). Subjects included in the sample were thus two-parent family high school students who had fathers working full-time and mothers working full-time (N=77), or fathers working full-time and mothers working part-time or not employed outside the home (N=84). Twenty-nine cases were excluded from the sample due to missing data or because they were missing at least one of the discriminating variables. Subjects were also asked about their frequency of extracurricular activities and sources of income in order to better understand the influence of after school activities on adolescent substance use behaviors.

### Design and Results

To examine the effects of maternal work patterns (A), students' gender (B) and grade level (C), a 2x2x4 MANOVA layout was employed with the dependent variables as usage of alcoholic beverages, cigarettes, and marijuana. The Box M multivariate test of homogeneity ( $M = 93.73$ ),  $df = 60,8894$ ,  $F = 1.36$ ) was not significant at the .01 alpha level. Summary information from the MANOVA table indicated that, at the .05 alpha level, there were no significant dif-

ferences among group centroids for the interactions and two main effect hypotheses (approximate F for (abc) = .909, (ab) = .783, (ac) = .420, (bc) = .658, A = .552, and B = .233). The MANOVA on the third main effect of substance use by students' grade level, however, was significant (approximate F for C = 2.62). This confirmed the hypotheses that maternal work patterns and students' gender do not significantly impact on adolescents' substance use, but as students progress in grade level the substance usage increases. In the absence of a priori hypotheses, subsequent univariate F tests were not undertaken.

Additional exploratory methods were carried out. Three separate stepwise regression analyses of extracurricular activities and sources of spending money as independent variables on substance use were performed. Both of these independent variables failed to meet the probability to enter (PIN) the regression equation, indicating their lack of utility in understanding usage patterns.

Tables 1 and 2 provide descriptive information and behavioral outcomes analyzed by maternal work patterns (full-time or part-time/not employed outside the home). In Table 1, the mean and standard deviation for both groups are provided for grade level; grade point average; extracurricular activities; weekly spending money; monthly drinking, cigarette, and marijuana usage; age began drinking, smoking, and using marijuana; school problems; driving under the influence; being a passenger while the driver was under the influence; and perceptions of ability to refuse substances if offered or pressured by friends.  $t$  tests were performed at the .05 alpha level for each level. There were no significant difference between the two maternal work pattern groups on any of the comparisons examined.



In Table 2, Yes/No frequency information for the two groups on a variety of questions are compiled. The questions concerned school absence; family, legal, and medical problems; counseling and therapy for subject and family; usage at home or at a friend's home; and ability to obtain substances. Chi-square tests were performed at the .05 alpha level for each variable. There were no significant differences in the frequency of Yes/No responses for the two groups.

The above results were obtained using the two maternal work patterns described in the Methodology section. For completeness, the data were also analyzed after redefining maternal work patterns into three groups: (1) full-time, (2) part-time, and (3) not employed outside the home. However, nonsignificant results were obtained using this paradigm of maternal work patterns as well.

#### Discussion

Based upon these data, maternal employment does not appear to be a significant factor affecting adolescent alcohol consumption, cigarette or marijuana use. These data support the growing evidence showing a lack of support for the robustness of the maternal employment variable (Hoffman, 1989), and extends these results to an adolescent population. Nevertheless, future researchers may wish to consider other markers of substance use and variables mediating adolescent-parent relationships.

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**TABLE 1**  
**Descriptive Information And Behavioral Outcomes Of Continuous Variables Analyzed By Maternal Work Patterns, Full-time (FT) or Part-time/Not Employed Outside The Home (PT).**

<u>Variable</u>	<u>Mean</u>	<u>SD</u>	<u>t</u>
Grade Level <sup>1</sup>			.36
FT	10.70	1.22	
PT/None	10.63	1.24	
Grade Point <sup>1</sup>			.88
FT	3.06	.96	
PT/None	2.93	1.00	
Extracurricular Activities/Week <sup>1</sup>			-.07
FT	2.16	1.96	
PT/None	2.18	1.89	
Weekly Spending Money <sup>1</sup>			-.71
FT	20.65	6.25	
PT/None	22.62	8.70	
Monthly Drinking Usage <sup>1</sup>			-1.1
FT	1.99	1.00	
PT/None	2.30	1.11	
Monthly Cigarette Usage <sup>1</sup>			-.19
FT	1.86	2.34	
PT/None	1.96	2.45	
Monthly Marijuana Usage <sup>1</sup>			-.70
FT	.58	1.18	
PT/None	.82	1.45	
Age Began Drinking <sup>2</sup>			.58
FT	14.15	11.37	
PT/None	13.35	2.42	
Age Began Smoking <sup>2</sup>			.62
FT	15.34	13.16	
PT/None	14.07	2.31	
Age Began Marijuana <sup>2</sup>			-1.09
FT	14.61	1.56	
PT/None	15.31	1.36	

<b>School Problems</b>			
<b>(Scale 1-5)<sup>1</sup></b>			
<b>(1=Never 2=Seldom)</b>			
FT	1.22	.58	1.45
PT/None	1.11	.41	
<b>Driving Under The Influence<sup>1</sup></b>			
<b>(Scale 1-5)</b>			
<b>(1=Never 2=Once)</b>			
FT	1.42	.80	1.07
PT/None	1.29	.74	
<b>Passenger While Driver Under The Influence</b>			
<b>(Scale 1-5)</b>			
<b>(1=Never 2=Once)<sup>1</sup></b>			
FT	1.65	.91	- .76
PT/None	1.76	.95	
<b>Ability To Refuse Substances If Offered From Friends</b>			
<b>(Scale=1-5)</b>			
<b>(1=very successful</b>			
<b>2=slightly successful)<sup>1</sup></b>			
FT	1.63	1.40	.68
PT/None	1.50	1.15	
<b>Ability To Refuse Substances If Pressured By Friends</b>			
<b>(Scale=1-5)</b>			
<b>(1=very successful</b>			
<b>2=slightly successful)<sup>1</sup></b>			
FT	1.67	1.42	1.07
PT/None	1.46	1.08	
<b>Ability To Obtain Substances</b>			
<b>(Scale 1-6)</b>			
<b>(2=easy</b>			
<b>(3=not very difficult)<sup>1</sup></b>			
FT	2.57	1.97	.77
PT/None	2.35	1.74	

<sup>1</sup> n=161 (Full-time=77, part-time/not employed outside the home=84).

<sup>2</sup> See text for sample size.

**TABLE 2**  
**Descriptive Information And Behavioral Outcomes Of Dichotomous Variables Analyzed By**  
**Maternal Work Patterns, Full-time (FT) or Part-time/Not Employed Outside The Home (PT).**

<u>Variable</u>	<u>Frequency</u> <u>YES/NO</u>	<u>Chi-Square</u>
School Absence		.90
FT	10/67	
PT/None	6/77	
Family Problems		.18
FT	9/68	
PT/None	7/76	
Legal Problems		.52
FT	8/69	
PT/None	5/78	
Medical Problems		.43
FT	0/77	
PT/None	2/81	
Require Counseling/ Therapy		.20
FT	6/71	
PT/None	4/79	
Family Require Counseling/Therapy		.21
FT	14/63	
PT/None	12/72	
Usage At Home		.26
FT	29	
PT/None	33	
Usage At Friend's Home		.10
FT	45	
PT/None	48	