ORIGINAL PAPER

# **Custodial Fathers-Do they Work More or Fewer Hours?**

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**Abstract** In this paper, we examine the effect of custody status on working hours by fathers. The primary data used in this study are the March and April match files of the 1992 Current Population Survey (CPS) conducted by the U.S. Bureau of Census. From the empirical results, we find that, on average, custodial fathers relative to all other fathers are more likely to hold a full-time job and they work more hours. In addition, a custodial father's marital status is closely correlated with his work hours and full-time working decision. Among custodial fathers, unmarried fathers are more likely to work full-time and for longer hours while married fathers are less likely to work full-time and they work fewer hours.

Keywords Custody · Father · Working hours

The composition of American families has changed dramatically in recent decades. In the 1950s, most children lived with both biological parents, while today overall, 27.6% of all children under 21 live in single-parent families (Department of Commerce, 2003). Issues related to female-headed families have drawn considerable public attention; many researchers have examined the differences in child well-being and various economic behaviors between single-mother families and two-parent families (Moon & Joung, 1997; Perry-Jenkins & Gillman, 2000). In contrast, studies on single-parent families that are headed by males have been relatively neglected by policy makers (Greif, 1995).

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Nowadays, about one in six single-parent families are headed by a father (Department of Commerce, 2003). The number of single fathers with custody of their children in 2002 is about 2.09 million (Department of Commerce, 2003). Even though female-headed families are the majority of single-parent families, the number of single-father families has risen a lot in the past decades and is projected to increase by 33% from 1998 to 2009 (Department of Health and Human Services, 2000).

The shift towards custodial fathers not only reflects a social change regarding legal custody rights but also offers men more opportunities in doing household activities. After a divorce, the benefits of specialization in terms of housework and child rearing, which are usually the responsibility of the female, will be diminished. Therefore, we would expect that men and women, after marital separation, might change their behavior in order to maximize their welfare after divorce. One of the changes policy makers are interested in is the labor supply response after divorce (Johnson & Skinner, 1986). After divorce, a custodial father not only continues to have the responsibility of earning money, but also assumes a new role in child rearing. As a result, a custodial father might need to adjust his work hours after getting custody.

The purpose of this paper is to study the impact of custody status on working hours by fathers. In particular, we focus on fathers' working hours and their full-time working decisions. Single fathers' involvement with their children and provision of good quality child-care are crucial to the children's welfare which can be measured in terms of nutrition, educational outcomes, and expenditures spent on children. In order to assure that children are assigned to the parent who can provide them with the best care and support, the change in working hours in response to getting custody may serve as an indicator to measure fathers' involvement with children. Also, the changes in quantity and quality of male working hours play an important role in the production side of the nation's economy. Hence, it is important to study the changes in working hours by custodial fathers after they get custody.

There are two different possible effects of getting custody. Firstly, a custodial father may have a difficult time balancing outside work and child rearing, and therefore may reduce the number of hours he works.<sup>1</sup> Secondly, child-care is expensive and time consuming. A custodial father may need to work more to purchase child-care services and maintain his standard of living. Therefore, combining these two effects, custodial fathers may either increase or decrease their work hours as a result of getting custody. This can be tested empirically.

In the next section, the theoretical basis for this paper will be discussed. Data, the empirical model and related econometric issues will be discussed in the following sections. We will use the data in the March and April match files of the 1992 Current Population Survey (CPS) to study the work-hour responses and full-time working status decisions of custodial fathers. We conclude in the final section.

## **Theoretical Basis**

Traditional economic analysis in work hours focuses on individual decisions in allocating time between leisure and outside work in order to maximize the individual's utility. Becker

<sup>&</sup>lt;sup>1</sup> When a father gets custody after a divorce, he must face the choice of splitting his time between work and child rearing. Even without the burden of parenting, the emotional stress of divorce could produce negative effects on work productivity. According to Greif (1985), 73% of custodial fathers reported that they must miss work, or reduce work-related travel; custodial fathers also may be forced to arrive late to or leave early from work. All these changes are due to the conflict between the fathers' new child rearing responsibility and work commitments.

(1965, 1991) treated the time spent on household work as an input of household production of commodities such as a clean house and a healthy child. This new approach not only enriches economic theory but also provides us with new insights into studying issues related to the demand for children and demand for health. In addition, decisions regarding fertility, marriage and divorce can be examined in household production models.

In this section, we will employ a household production model to describe the working hour response by custodial fathers. Before a divorce, a father is regarded as the primary worker in the household. We usually assume that his female counterpart does the household work and that she decides whether or not to participate in the labor market. However, after a divorce, the benefits of economies of scale and specialization diminish. A custodial father needs to reallocate his time between outside work and household work in order to produce commodities such as raising a good child and other non-children consumption to maximize his utility. This can be described as follows:

Max: 
$$U = U(K, Z)$$
  
s.t.  $\Pi kK + \Pi ZZ = WT + V$   
 $K = k(x, t_1, E), Z = z(x, t_2), T = t_1 + t_2 + H$ 

K denotes the number of children, Z denotes non-children consumption, x denotes purchased goods,  $t_1$  and  $t_2$  denote time inputs used to produce K and Z respectively, E denotes environmental variables, T denotes total available time and H denotes time spent on outside work. If K and IIZ represent the implicit price of consuming K and Z, and they will depend on the technology of producing K and Z. V is non-earned income and WT + V is full income.

After solving the optimization problem, we then can derive demand for activities, Z and K. In addition, we will obtain unconditional demand for time and purchased goods in producing Z and K and conditional demand for time and purchased goods given the level of Z and K. In this model, working hours by a custodial father will depend on his income, wage rate, and the trade-offs he is willing to make between household work and outside work. The trade-offs will depend on the technology of the household production function. For example, if it is very difficult to substitute parent's time for purchased goods and services in producing a good child, a custodial father may need to reduce his time spent on outside work in order to maximize his utility. Nevertheless, he could remarry and find a step-mother for his children. Weiss and Willis (1985) pointed out that remarriage could have potential impacts on a divorced couple's resource allocation decisions. For instance, a step-mother could potentially share the responsibility with the custodial father to raise his children and this could induce an increase in the father's work hours. Thus, the marital status of a custodial father could also have significant effects on his work-hours decisions.

Furthermore, public policies related to income transfer programs, wage policies, childcare costs, and child-care benefits will have impacts on custodial fathers' work-hour responses (Blau & Robins 1988; Garfinkel, Mclanahan, Meyer, & Seltzer, 1998). Child-care subsidy policies, on the one hand, will induce custodial fathers to use more goods and services rather than spend time in household work if purchased goods and time in producing children are substitutes. On the other hand, the decrease in the price of child-care services will increase custodial fathers' purchasing power and the income effect resulting from cheaper child-care services will produce negative effects on working hours by custodial fathers if leisure is a normal good. All these important policy questions can be investigated empirically.

#### Data

The primary data used in this study are the March and April match files of the 1992 Current Population Survey (CPS).<sup>2</sup> In this paper, a custodial father is defined as a male who has his own or adopted children under 21 years of age who have a parent living elsewhere. According to this definition, we have 640 custodial fathers in our sample. The sample size for this study is 12,798.<sup>3</sup> Socio-economic characteristics of all fathers, custodial fathers, and all other fathers are summarized in Tables 1 and 2.

In Tables 1 and 2, we find that custodial fathers are different from all other fathers in various aspects. For instance, custodial fathers are younger, less likely to be married, less educated, earn less, and work less than all other fathers. The average age for custodial fathers is about 38.9 and that for all other fathers is about 40.2. About 46% of custodial fathers are currently married and about 97% of all other fathers are married. Custodial fathers are more likely to have more children. However, they tend to have fewer younger children in our sample. The average years of education are 12.9 for custodial fathers and 13.4 for all other fathers. Next, we will focus on several labor market outcomes. In the case of annual earnings, on average, custodial fathers earn \$3500 less than all other fathers do. Also, custodial fathers work less, are less likely to participate in labor market, and are less likely to hold a full-time job.

Table 3 presents the definition of all variables and summary statistics. Two dependent variables—working hours by fathers per week and their full-time working status—are used for this study. A father holds a full-time job if he works 35 hours or more per week. CUSTODY is the major independent variable in this model. CUSTODY is equal to one if a father has children under 21 years old who have a parent living elsewhere, and is equal to zero otherwise. Note that legal custody and physical custody might have different impacts on a father's work-hour decision. Therefore, we probably should treat these two kinds of custodies in a different way. However, our data does not allow us to distinguish legal custody from physical custody. So, they are pooled into one category in this study.

Wages are calculated as the value of annual earnings divided by annual working hours. NONERN represents family non-earned income which is the difference between total family income and family annual earnings.

A variety of socio-demographic variables are included in this model. MARRIAGE represents the current marital status of all fathers. MARRIAGE is equal to one if the person is currently married, and is equal to zero otherwise. Another dummy variable, WHITE is created to capture the racial status. WHITE is equal to one if the person is white, and is equal to zero otherwise. Age-related variables (AGE and AGESQ) and number of children variables (NKIDS6 and NKIDS7-18) are also included in the model.

In addition, we transform the categorical data of educational attainment into years of education. For instance, EDU is 12 if the person is a high school graduate. EDU is 14 if the person has some college education but has no degree. EDU is 16 if the person is a college graduate. By this, we can measure the marginal effect of years of education on working hours.

 $<sup>^2</sup>$  The supplement match files were conducted by the Bureau of Census. Questions related to custodial parents were collected for the first time in the April Supplement. Data related to labor force were collected in the Basic CPS and the March Supplement.

<sup>&</sup>lt;sup>3</sup> We exclude the age outliers and focus on the group of fathers whose ages were between 20 and 60.

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Variables	Custodial fathers $(n = 640)$	All other fathers (n = 12,158)	All fathers $(N = 12,798)$	
Age				
20–29 years	9.80	11.91	11.80	
30–39 years	43.08	37.11	37.41	
40 years and over	47.12	50.98	50.79	
Current marital status				
Married	45.72	97.25	94.66	
Divorced	35.31	1.24	2.95	
Separated	11.67	.22	.79	
Widowed	.15	.36	.35	
Never married	7.15	.93	1.25	
Number of children				
One	48.30	39.19	39.68	
Two	32.31	40.34	39.91	
Three	11.74	14.88	14.71	
Four or more	7.65	5.59	5.70	
Educational attainment				
Less than high	17.57	13.67	13.86	
school diploma				
High school graduate	37.79	35.80	35.91	
Some college, no degree	22.08	16.76	17.03	
Associate degree	2.96	4.10	4.04	
Bachelor's degree	19.60	29.67	29.16	
or more				
Family income				
Below 15,000	16.17	8.48	8.87	
15,000-29,999	26.91	18.48	18.90	
30,000-49,999	30.64	31.27	31.24	
50,000-69,999	13.53	21.31	20.91	
Above 70,000	12.75	20.46	20.08	
Race				
White	87.56	88.62	88.56	
Black	9.02	6.75	6.86	
American Indian,	1.56	.97	1.00	
Aleut Eskimo				
Asian or Pacific Islander	1.87	3.45	3.38	
Other	0	.21	.20	

Table 1	Characteristics o	f custodial fath	ers, all other	r fathers and	all fathers	(in	percentage)
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Note. Data were obtained from March/April match files of the 1992 Current Population Survey (CPS), Bureau of Census

## **Empirical Results**

From the theoretical section, we know that the working hours by a father will be a function of his wage, income, the status of getting custody, and other socio-economic variables. What we want to do is to test whether the status of custody plays an important role in his hours of work decision. Thus, we can write down the following:

$$H = F(\text{CUSTODY},X).$$

*H* denotes hours usually worked per week. CUSTODY denotes custody status. *X* denotes all other exogenous socio-economic variables.

Variables	Custodial fathers $(n = 640) M$	All other fathers $(n = 12,158) M$	<i>t</i> -Value
Age	38.9176	40.1587	4.1130
Married	.4572	.9725	26.1300
Number of children (18 and younger)	1.6376	1.5875	-1.1100
Number of children (6 and younger)	.3654	.5587	7.4300
Years of education	12.9207	13.354	4.2152
White	.8756	.8862	.7973
Annual earnings	24897.96	28394.53	4.2434
Weekly working hours	40.9082	42.4990	2.7279
Log hourly wage rate	2.3090	2.4394	3.4328
Labor force participation	.9316	.9528	2.0895
Full time	.8958	.9161	1.6467

Table 2 Characteristics of custodial fathers and all other fathers

Note. Data were obtained from March/April match files of the 1992 Current Population Survey (CPS), Bureau of Census

The coefficient of CUSTODY captures the impact of custody on working hours by fathers. If the coefficient of custody is significantly greater than zero, then we argue that, on average, custodial fathers will work more. By contrast, a negative value implies that, on average, custodial fathers will reduce their working hours. The coefficients of other socioeconomic variables represent the effects on working hours stemming from other variables such as age, education, current marital status, numbers of children, race and other exogenous variables.

We do not include the wage variable in our regression models. The main reason for this is that our focus here is not wage elasticity. Also, we want to avoid the censoring problem that results from the observations of non-working fathers. Therefore, we choose not to include the wage variable in the estimation. Similar approaches can be found in Jakubson (1988), Blank (1988), and Buchmueller and Valletta (1999).

Two estimation techniques are employed to investigate the impact of custody status on working hours by fathers. Firstly, we consider a conditional OLS model. In this model, we only include fathers with positive working hours in our sample. We have 10,969 observations in this sub-sample estimation. However, there are about 2000 individuals who do not work, and if we ignore the information of these individuals, the estimated parameters might be biased. As a result, in addition to using a sub-sample in the conditional OLS model, a full sample is used in the Tobit estimation. The information of choosing not to work is ignored in the conditional OLS model but it is included in the Tobit model.

The results of the conditional OLS and Tobit models are presented in Table 4. Our main focus here is the marginal effect of getting custody on a father's working hours. Whether or not a father gets custody and whether or not a father is married jointly determine the marginal effect. We obtain a positive but insignificant coefficient of CUSTODY in both the conditional OLS and Tobit models. However, the coefficient of the interaction term, CUSTODY\* MARRIAGE, is negative and statistically significant in both models.

Combining these two effects, we find that a married custodial father, relative to an unmarried custodial father, works fewer hours. If a father's change in working hours in response to getting custody is a good indicator of his involvement with children, then we may argue that, on average, a married custodial father's involvement with children will increase, and an unmarried custodial father's involvement with children will decrease.

Possible explanations for the above findings could be that unmarried custodial fathers may find difficulties in balancing outside work and household production, and they have to

	ition	N	Μ	SD	Min	Max
HP	ting hours and the 1001	1 7 7 0 8	017 CV	13 407	C	00
	And nours per week in 1991	06171	44.417	164.01	0	66
LNWAGE Log at	annual earnings/annual working hours	10969	2.4329	.7982	-4.8187	4.8844
FULL TIME 35 hou	ours or more per week	12798	.9150	.2787	0	1
PARTICIPATION Partici	cipation = 1 if working hours $> 0$ , otherwise = 0	12798	.9517	.2143	0	1
CUSTODY Male	who have children under 21 years of age who	12798	.0502	.2184	0	1
hav	ve a parent living elsewhere					
MARRIAGE Curren	ent married = 1, otherwise = $0$	12798	.9466	.2247	0	1
EDU Years	s of education	12798	13.332	2.7601	is.	20
NKIDS6 Numb	ber of own children under 6	12798	.5489	.7623	0	S
NKIDS7–18 Numb	ber of own kids whose ages are between 7 and 18	12798	1.0410	1.0460	0	6
NONERN Non-e	earned income, in thousand dollars	12798	3848.6	9156.7	-19541	176855
AGE Actua	al age in every category	12798	40.096	8.8401	20	09
AGESQ Age s	square	12798	1685.8	729.03	400	3600
WHITE White	e = 1, otherwise = 0	12798	.8856	.3182	0	1

Table 3 Variable definitions and summary statistics

	Conditional OLS model $(N = 10,969)$		Tobit model $(N = 12,798)$	
CUSTODY	.7429	(.7840)	1.0611	$(1.045)^{a}$
MARRIAGE	.9827	(.5737)	3.2410**	(.7606)
CUSTODY*MARRIAGE	-1.6458	(.9772)	-2.1376	(1.3146)
EDU	.4349**	(.0336)	1.0588**	(.0448)
NKIDS6	.3454**	(.1461)	2901	(.1986)
NKIDS7-18	.0611	(.0963)	1566	(.1305)
NONERN	.000001	(.0001)	0002**	(.00001)
AGE	.3119**	(.0892)	.6554**	(.1203)
AGESQ	0036**	(.0010)	0091**	(.0014)
WHITE	1.7213**	(.2815)	3.5698**	(.3783)
CONST	29.6865**	(1.8067)	12.3067**	(2.4401)
$R^{2b}$	.0215	.0117		

#### Table 4 Estimation of working hours

Note.

<sup>a</sup>Standard errors in parentheses

<sup>b</sup>Pseudo  $R^2$  is reported for Tobit estimation

\**P* < .05; \*\**P* < .01

work more hours in order to bring in more financial resources. Thus, unmarried custodial fathers' involvement with children decreases after they get custody. However, married custodial fathers have new wives to share the financial burden of child rearing, so they might choose to work fewer hours and spend more time with their children after getting custody.

One plausible reason for the insignificant result of the CUSTODY variable could be that some uncontrolled factors may play important roles in explaining a custodial father's workhour decision. The existence of individual heterogeneity could potentially produce imprecise estimates if we fail to control for them in our estimation. For example, some custodial fathers might have more traditional family values than others, which researchers might not be able to observe in the data. In the case that a father's unobserved individual factor is correlated with the CUSTODY variable, the least squares estimates will be biased and may become statistically insignificant. A panel data approach can potentially control timeinvariant individual heterogeneity, and it might improve the precision of our estimates.

The coefficient of MARRIAGE is significantly positive. This prediction is the same as our economic intuition. We predict that married men will work more than men who stay single. We obtain a positive coefficient of years of education (EDU). This implies that, on average, highly educated men are more likely to work more. One possible explanation is that the opportunity cost of highly educated men for being unemployed is much higher.

In the OLS model, we find that, on average, fathers will increase their work hours if they have an additional child whose age is below 6 years old. As for the impact of children aged between 7 and 18 years old, we also find a positive but insignificant impact on a father's work hours. In the Tobit estimation, we find that fathers will decrease their work hours if they have more children. However, these effects are not statistically significant in the Tobit estimation.

We obtain a positive and significant coefficient in age variable (AGE) and a negative and significant coefficient in AGESQ in both models. Therefore, on average, fathers will increase their work hours with the increase of their ages but the increase rate is decreasing. A positive and significant coefficient of racial status (WHITE) is reported. This suggests that, on average, white fathers work more hours than their non-white counterparts.

Table 5 reports the estimation results of fathers' full-time working status. A probit model is used to examine the impact of custody and other socio-economic variables on a father's full-time working status. A father holds a full-time job if he works 35 h or more per week. The estimation results are similar to the findings in the conditional OLS and Tobit models. We find that, on average, custodial fathers, relative to all other fathers, are more likely to work full-time and the impact is statistically significant. In addition, among custodial fathers, unmarried fathers are more likely to work full-time, but married fathers are less likely to work full-time. Also, fathers with more education, married fathers, older fathers, and white fathers are more likely to work full-time. The increase rate of the age variable is decreasing. In contrast, fathers with younger children and fathers with more non-earned income are less likely to work full-time.

# Conclusion

In this paper, we examine the effects of custody status on working hours and full-time working status by the male custodian. Questions related to custodial parents were collected for the first time in the April Supplement of the 1992 CPS. This has provided us with a great opportunity to study the impacts of custody on a father's working hours and full-time work status. An ordinary least squares model, a Tobit model, and a Probit model are presented in this paper.

From our empirical results, we find that, on average, custodial fathers relative to all other fathers are more likely to hold a full-time job and they work more hours. In addition, a custodial father's marital status is closely correlated with his work hours and full-time work decision. Among custodial fathers, unmarried fathers are more likely to work fulltime and for longer hours while married fathers are less likely to work full-time and they work fewer hours.

	Probit (Full-time status) (A	<i>N</i> = 12,798)
CUSTODY	.3975*	(.1776)
MARRIAGE	.3389**	(.1091)
CUSTODY*MARRIAGE	4845*	(.2228)
EDU	.0580**	(.0075)
NKIDS6	0507	(.0345)
NKIDS7-18	0458*	(.0231)
NONERN	00001**	(.000001)
AGE	.0906**	(.0195)
AGESQ	0011**	(.0002)
WHITE	.2065**	(.0613)
CONST	-1.0928**	(.3916)
$R^{2b}$	.0395	

Table 5 Estir	nation of	full-time	working	status
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Note.

<sup>a</sup>Standard errors in parentheses

<sup>b</sup>Pseudo  $R^2$  is reported for Tobit estimation

\*P < .05; \*\*P < .01

Possible explanations for our findings could be that unmarried custodial fathers may find difficulties in balancing outside work and household production, and they have to work more hours in order to bring in more financial resources. Furthermore, if the change of work hours in response to getting custody could serve as an indicator to measure a father's involvement with his children, then we may argue that an unmarried custodial father's involvement with his children decreases after he gets custody. On the other hand, married custodial fathers have their new wives to share the financial burden of child rearing, so they might decide to work fewer hours and spend more time with their children after getting custody.

The insignificant coefficient of the custody status variable in the conditional OLS and Tobit models could be the result of the existence of uncontrolled individual heterogeneity that causes imprecise coefficient estimates. One way to remedy this problem is to consider a panel data approach. In a panel data model, we can potentially control time-invariant individual heterogeneity, and this might improve the precision of our estimates.

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#### References

Becker, G. S. (1991). A treatise on the family. Cambridge, MA: Harvard University Press.

- Becker, G. S. (1965). A theory of the allocation of time. Economic Journal, 75, 493-517.
- Blank, R. (1988). Simultaneously modeling the supply of weeks and hours of work among female household head. *Journal of Labor Economics*, 6, 177–204.
- Blau, D. M., & Robins, P. K. (1988). Child care costs and family labor supply. *Review of Economics and Statistics*, 70, 374–381.
- Buchmueller, C. T., & Valletta, G. R. (1999). The effect of health insurance on married female labor supply. Journal of Human Resources, 34, 42–70.
- Department of Commerce. (2003). Custodial mothers and fathers and their child support: 2001. http:// www.census.gov/prod/2003pubs/p60-225.pdf
- Department of Health and Human Services. (2000). Getting to Know the Future Customers of the Office of Child Support. Projections Report for 2004 and 2009. http://www.acf.hhs. gov/programs/cse/pubs/ reports/projections/ch02.html#N4B
- Garfinkel, I., Mclanahan, S. S., Meyer, D. R., & Seltzer, J. A. (1998). Fathers under fire: The revolution in child support enforcement. New York: Russell Sage Foundation.
- Greif, G. L. (1995). Single fathers with custody following separation and divorce. Marriage & Family Review, 20, 213–231.

Greif, G. L. (1985). Single fathers. Lexington, MA: D.C. Heath and Company.

- Jakubson, G. (1988). The sensitivity of labor supply parameter estimates to unobserved individual effects: Fixed- random-effects estimates in a nonlinear model using panel data. *Journal of Labor Economics*, 6, 302–330.
- Johnson, W. R., & Skinner, J. (1986). Labor supply and marital separation. American Economic Review, 76, 455–469.
- Moon, S. J., & Joung, S. H. (1997). Expenditure patterns of divorced single-mother families and two-parent families in South Korea. *Journal of Family and Economic Issues*, 18, 147–162.
- Perry-Jenkins, M., & Gillman, S. (2000). Parental job experiences and children's well-being: The case of two-parent and single-mother working families. *Journal of Family and Economic Issues*, 21, 123–147. U.S. Bureau of the Census, Current Population Survey, March/April 1992.
- Weiss, Y., & Willis, J. R. (1985). Children as collective goods divorce settlement. Journal of Labor Economics, 3, 268–292.