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Can the Family Support Act Put Some Life Back Into Deadbeat Dads?

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ABSTRACT

Federal legislation mandates the use of child-support guidelines to improve adequacy and horizontal equity of child-support awards. Using state guideline formulas, and a sample of women drawn from the NLSY we compare the effects of guidelines on children born out of wedlock versus children whose parents divorced or separated. Our analyses indicate that guidelines increase the probability of child-support awards for children born out of wedlock. Guidelines also reduce variation in awards by eliminating outliers, not by equalizing awards across the entire distribution. Awards for high-income divorced or separated fathers fall substantially below the guideline amount.

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I. Introduction

The public has responded to media accounts of “deadbeat dads” by calling for improvement of the collection of child support from absent parents. Although nearly 73 percent of divorced women with children in 1991 had been awarded child support, only 50 percent of women who were separated and 27 percent of never-married women had awards (U.S. Bureau of the Census 1995). Even when child support is awarded, awards are often inadequate when compared with estimates of the actual cost of raising a child. In addition, many noncustodial parents do not fulfill their child-support obligations. Only one-half of the women owed child support in 1991 received the full amount they were due, and one quarter received nothing at all.

In response to public opinion and fiscal pressures, lawmakers have tried to shift the burden of supporting children from the state to both residential and absent parents. Their goals are to establish child-support awards for all children with absent parents, improve the adequacy and horizontal equity of these awards and ensure full compliance. Recent federal legislation has mandated the development and use of guidelines in the determination of child-support awards to specifically address the goals of adequacy and equity (Williams 1994). The Child Support Enforcement Amendments of 1984 required that states adopt advisory guidelines by October 1, 1987. This law was strengthened in 1988 with the passage of the Family Support Act which required guidelines to be used with rebuttable presumption by 1989.¹ This requirement would be expected to increase the uniformity of awards within a state for families with similar economic characteristics. Awards may still vary substantially across states as each is free to choose the amounts of the required awards. Uniform federal guidelines have been considered to address this issue, and evaluation of the effect of the various child-support guidelines currently being used throughout the 50 states provides important information in this policy debate.

In this paper we address four questions: (1) What is the impact of child-support guidelines on award rates? (2) Have guidelines increased the level of child-support awards? (3) Has the adoption of guidelines promoted horizontal equity—that is, are awards the same for parents in the same circumstances? and (4) What factors, if any, cause families to deviate from the awards specified by guideline formulas? In order to answer these questions, we have collected data on child-support guidelines for all 50 states and the District of Columbia from 1979–1992. These data identify the status of guidelines in a state (advisory, presumptive or none) and allow us to calculate the guideline amount in any state given mother’s income, father’s income and the age and number of children.

Using data from the 1979 cohort of the National Longitudinal Survey of Labor Market Experience of Youth (NLSY79), we apply the guideline information to a sample of women with children whose fathers are absent either due to divorce or to separation or because the child was born out of wedlock. Our empirical analysis indicates that the presence of child-support guidelines increases the probability of receiving a child-support award and the size of the award for women who have

1. Each of these child-support policies also required greater efforts in paternity establishment and enforcement.

children out of wedlock. We also find that when guidelines are in effect, there is evidence of systematic deviations from these formulas. Specifically, high-income fathers have awards that are lower than those specified in the child-support guideline formulas. In the next section we briefly describe the theoretical framework for our analysis. Subsequent sections provide details regarding our NLSY79 sample, aggregate state guideline data, and the results of the empirical analysis.

II. The Role of Guidelines in the Determination of Child-support Awards

Weiss and Willis (1985) first formalized the idea that children can be public goods even when the parents live in separate households and do not care about each other. That is, both parents may retain their emotional attachments to the children despite the fact that the noncustodial parent (NCP) does not reside with the children. If the NCP is altruistic, he will receive utility from expenditures on the children, and, even in the absence of any laws about child support, he will voluntarily transfer income to the custodial parent (CP) to increase child expenditures.² Some NCPs, however, may wish to contribute little or nothing in support of their children, perhaps due to weak emotional attachment, antagonism toward an ex-spouse, inability to pay, or even the perception of alternative income available to the CP and child. It is in these cases that the role of the state is most important.

Laws requiring child-support guidelines provide property rights for the CP because she can insist on the guidelines whenever the amount offered by the NCP is too small.³ If CPs (or their legal representatives) are aware of the guidelines, aggregate award rates and child-support award levels may increase. It is also possible, however, that parents would agree to a child-support award that is less than the guideline amount. This could occur if the parents have specific circumstances that are not recognized in the formulas. For example, not all guidelines make adjustments for different custody or visitation arrangements. Other NCPs may prefer to make in-kind transfers and reduce monetary payments to the CP. If altruistic parents can cooperate and come to an alternative agreement about child support, the child and parents are likely to be better off. A second case: parents might agree to an award lower than the guideline amount when guidelines are high, but enforcement efforts are low. A CP might be willing to agree to a lower amount that the NCP is willing to pay rather than impose the higher amount, if it is not likely that the higher amount can be collected.

Prior to the adoption of guidelines there was substantial uncertainty regarding the court's position and child-support awards varied a great deal from judge to judge

2. The model developed by Weiss and Willis (1985) employs a principal-agent framework to explain why altruistic fathers might transfer less than an optimal amount to their children. Argys and Peters (1997) extend this model to incorporate the possibility of cooperative settlements and develop a game-theoretic bargaining model of the joint determination of child-support awards and compliance as a function of parental altruism and state child-support guidelines and enforcement levels.

3. Throughout this paper we will refer the mother as the CP, and the father as the NCP. Although the gender of the custodial parent does not alter the theoretical explanations, our data consists only of custodial mothers.

(White and Stone 1976). Presumptive guidelines, and widely used advisory guideline formulas now provide parents (and researchers) with precise information regarding the default settlement to be imposed by the court if parents fail to reach an alternative agreement. Guidelines also ensure that families in similar circumstances have like awards. In addition to improving horizontal equity, guidelines are intended to increase child-support awards. Because guidelines will only affect families for whom the guideline award exceeds the amount the noncustodial parent would provide voluntarily, this policy may be largely ineffective if a state adopts guidelines with low award levels.

Empirically testable hypotheses follow from models of parents' responses to these child-support laws. Guidelines are expected to increase awards if the amounts specified in the formulas exceed the awards that parents voluntarily agreed to or the awards that judges imposed if an agreement was not reached. The effect of guidelines on award rates is less clear. Beller and Graham (1993) note that this effect depends on the treatment of low-income obligors in the guideline formulas. Because the formulas make explicit the default award, often as a percentage of the father's income, awards of zero should become less common. Beller and Graham (1993) suggest that even in the case of guidelines that require a percentage of income, judges may hesitate to require payments from the lowest income fathers and may instead make no award. This could be the case prior to 1989, when some guidelines were advisory, but the adoption of presumptive guidelines should eliminate this possibility. In addition, many guidelines specifically indicate a minimum award amount, further increasing the likelihood of a child-support award. In 1990, for example, the guidelines in 25 states mandated a minimum award level (Munsterman et al. 1990).⁴ Finally, we expect the adoption of guidelines to reduce variation in awards among families of equal size and income levels. Though variation across states is still likely because each state may adopt its own guideline formula, within state variation should fall because parents may negotiate from a common starting point and default awards are based solely on the guideline formulas.

Because child-support guidelines have been widely used only in the last ten years, few studies have investigated the impact of guidelines on child-support awards since the federal regulations have been in effect. One strand of this research deals primarily with assessing the adequacy of the formulas themselves. This analysis involves the calculation of child support awards for a hypothetical family using the child-support formulas in various states. Using this methodology, Pirog-Good (1993) suggests that the guidelines in effect in many states as late as 1991 specify inadequate award levels.

Although the adequacy of the formulas is clearly an important issue, we still must ask: Do these guidelines translate into improvements in actual child-support awards? The early evidence about the effect of guideline requirements is mixed. Analysis of survey data from divorced couples in Florida and Ohio in 1985 and 1986 indicates that couples who report using state or county guideline formulas to determine their awards have significantly higher awards (Sonenstein and Calhoun 1990). A shortcoming of this approach is that the decision by a couple to use the guidelines is

4. Some states specify a particular minimum amount of child support to be awarded. For example, Wyoming's guidelines state "in no case shall the support obligation be less than \$50 per month." Others, such as Maine's, simply state that child-support awards should never be zero.

endogenous, because it is a choice based on the voluntary payment level. Pearson, Thoennes, and Tjaden (1989) analyze divorce cases in Ohio, Florida, and Colorado and find that absolute award levels and awards as a percentage of father's income are significantly higher after the enactment of guidelines in two of the states.

Two studies using national child-support data from the Current Population Survey (CPS) find mixed effects of guidelines on award rates and levels. Using a combined sample of ever- and never-married women, Garfinkel and Robins (1994) find no significant effects of guidelines on either the probability that child support is due or the amount due. In contrast, Beller and Graham (1993) find that the presence of child-support guidelines reduced award rates, especially for never-married and black mothers, and increased award levels for nonblack and ever-married women. For the most part these studies do not include awards that were made after the 1984 Child Support Enforcement Amendments and 1988 Family Support Act were fully implemented. Awards affected by guidelines in these studies occurred only in states that were early in adopting guidelines.

III. State Child-Support Guidelines

The Child Support Enforcement Amendments of 1984 (CSEA) required states to adopt numerical child-support guidelines and use them in an advisory capacity by October 1987. If parents could not agree on a settlement, the courts were expected to consult the advisory guidelines before setting the award. By October 1989, states were expected to use guidelines with rebuttable presumption as mandated by the Family Support Act of 1988. In this case, child-support awards should be set at the level determined by the presumptive guidelines unless compelling argument for deviation is presented or both parents agree to an alternative award. A few states adopted guidelines prior to the 1984 passage of the CSEA. Some, like California and Arizona, had guidelines in effect in only some counties. Others, like Hawaii, had a uniform state guideline in place by 1983.

In order to examine the impact of state child-support guidelines on child-support outcomes, we gathered data from the National Center for State Courts (Munsterman et al. 1990), state Child Support Enforcement Offices, and state statutes. We also consulted with Policy Studies Incorporated⁵ regarding the date of adoption of child-support guidelines and the specific formula used in each year. To be classified as having guidelines for the purposes of our study, a state must have adopted and implemented guidelines with specific award amounts to be used statewide for all child-support cases.⁶ Figure 1 depicts the status of child-support guidelines in the fifty

5. Policy Studies Incorporated is a consulting firm that was active in the development of guidelines in many states.

6. The dates of guideline adoption in our study differ somewhat from earlier sources (Beller and Graham 1993; Garfinkel and Robins 1994). First, we use a more narrow definition to categorize a state as having guidelines. Beller and Graham (1993), using published and unpublished data from the National Conference of State Legislatures, classified a state as having guidelines if it had guidelines in place or simply specified factors that should be considered in setting awards. Other differences occurred because of our requirements that guidelines be used statewide, rather than in only some counties, and that they be used in all child-support cases. For example some states adopted guidelines early that were only used for welfare cases or when a child-support award was being modified. For these reasons, some of our dates are later than those used in the earlier research.

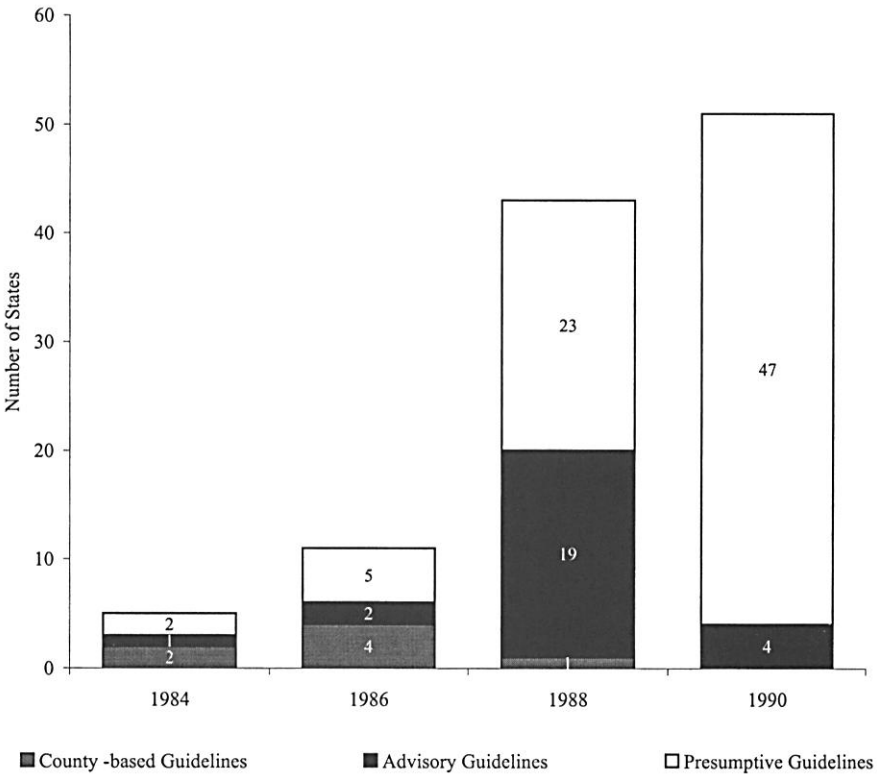


Figure 1
Status of State Guidelines

states and the District of Columbia at four points in time. Prior to the CSEA, at the beginning of 1984, only five states had guidelines that were used in the determination of all child-support cases. This number had increased to 11 in 1986. By 1988, just after the federal deadline, the majority of states had adopted guidelines. At this time, 23 states had already established their guidelines as presumptive. Seven states had not completed the legislative process by the end of 1987, but did enact guidelines soon thereafter. By the beginning of 1990, all states had guidelines, and only four states still used them only in an advisory capacity, and by 1992, (not shown) all 51 jurisdictions had presumptive guidelines in place.

Federal regulation requires the adoption of a guideline formula, but gives states discretion in determining the level of awards specified in the guidelines. Three types of formulas have been used in child-support guidelines: income shares, percentage of income, and the Melson formula.⁷ All three of these formulas increase the award with the NCP's income (as a constant or decreasing percentage), and some formulas

7. For an in-depth description of the characteristics of the various guideline formulas see Williams (1987).

consider the CP's income as well. Guideline awards also increase with the number of children, but typically at a decreasing rate, and in a few states, additional support is provided for older children. Some guidelines also specify the treatment of child care and medical expenses and adjustments for shared custody.

In order to measure differences in guidelines awards across states and incorporate these differences in analysis of child-support outcomes, we have programmed the formulas for all 50 states plus the District of Columbia during the time they had guidelines in place.⁸ This enables us to calculate the guideline award for any family once we have information about parents' incomes, number and ages of children, date of award and state of residence. Some states specify awards as a function of parents' after-tax income. For these states, we calculate net income by subtracting estimated federal income tax and FICA obligations. We have not incorporated state taxes into our calculation, and this may serve to overstate guideline awards.⁹ We also do not adjust awards for child care and medical costs, which may cause us to underestimate the guideline award if the CP incurs these costs.

To assess the variability and adequacy of state formulas, we calculate the guideline amount for a representative family, on the first day of each year between 1984 and 1992 in all states that had adopted statewide guidelines by that date. Our representative family has two children, ages six and 11, NCP gross annual income of \$20,112, and CP gross annual income of \$11,049.¹⁰ It is assumed that both children reside with the mother after the parents separate. The mean monthly award level for this representative family in 1990 is \$405, ranging from a low of \$321 in Utah to a high of \$601 in Connecticut.

To illustrate the variability in guideline formulas across states, Figure 2 reports the maximum, minimum and intervening quartile award amounts for the representative family between 1984 and 1992 for states that had adopted guidelines by each year. Although the median award varies little over this time period and the two middle quartiles are within 15 dollars of the median, there is substantial variation in guideline formulas as evidenced by the widely divergent maximums and minimums.

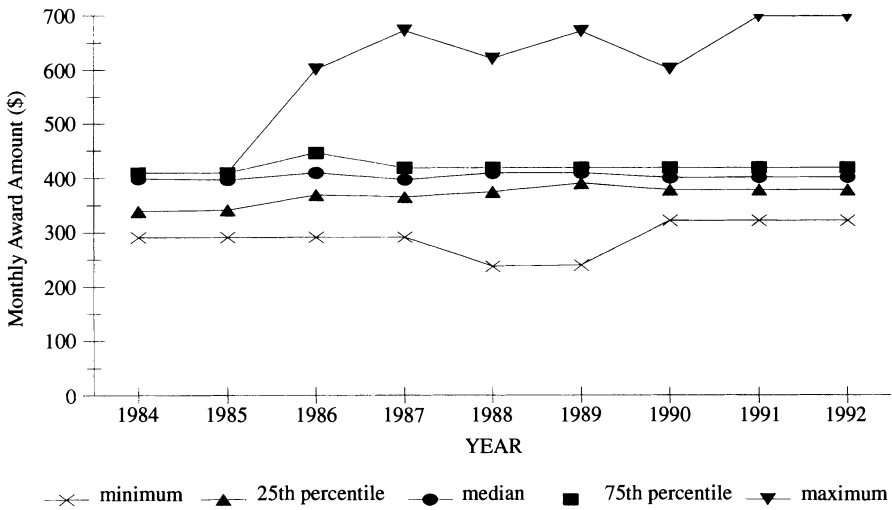
IV. Data Description

Our empirical analysis uses data from the 1979 cohort of the National Longitudinal Surveys of Labor Market Experience of Youth (NLSY79). These data are a nationally representative sample of men and women born from 1957 to 1964. The data also include an oversample of blacks and Hispanics from the same birth cohorts. The respondents, age 14 to 22 during the first interview in 1979, were interviewed annually until 1994 and biannually after that date. In 1993, the latest survey

8. Because of nonuniformity throughout the state we do not program any formulas for states during the period that they have county-based guidelines. The exception to this is California, which used a single formula in most counties between 1984 and 1987.

9. It has been estimated that the average per capita state income tax burden was approximately \$300 in 1987 (private correspondence with Leslie Whittington), so ignoring state taxes accounts for a small upward bias.

10. These income figures represent median national income for men and women 25 to 34 years old during the midpoint of our sample years (U.S. Bureau of the Census 1989).



Note: Distribution only represented for states with guidelines in each year

Figure 2
Cross-state Distribution of Guideline Awards for a Representative Family

used in our analysis, the respondents are between the ages of 28 and 36. Information about marital, fertility, and employment histories, components of income and educational attainment for the respondent and spouse, household structure, and state of residence has been collected annually. Mothers' reports of contact between an absent father and her children have been collected biannually since 1984. In addition, in 1993 the respondents were asked retrospective questions about the date and amount of any child-support awards, modifications to the award, and the nature of the child-support agreement.

Our sample for this analysis consists of female respondents with a child whose father did not live in the household in the 1992 and 1993 surveys. Fathers may be absent either because the child was born out of wedlock or because of a divorce or separation. Thus, all the respondents in our sample could be eligible for child-support awards. For the divorced-separated sample, the initial date of eligibility for child support is the separation date (or divorce date if no separation date is reported). For the nonmarital birth sample, we use the date of birth of the oldest child in a family with an absent father to indicate the initial date of eligibility for child support.¹¹ To

11. In almost one-quarter of the nonmarital birth sample, the father is living in the household with the mother at the first survey after the birth of the child. These families are only included in our sample if the father has left the household by the 1992 survey. Because some fathers leave and return to the household a number of times, it is difficult to determine a single date of eligibility. As a convenience we identify the date of birth of the oldest child born out-of-wedlock as that date of eligibility. In the award hazard analysis we include a dummy variable to control for periods in which the father is living in the respondent's household or the child is living in another household.

link respondents with our information regarding guideline status (advisory, presumptive, none) and specific guideline formulas, we use information about the respondent's state of residence at the time of each survey from the NLSY79 geocode data.

Table 1 reports the sample means separately by reason for father's absence (divorced-separated versus nonmarital birth) and for those with child-support awards by the 1992 survey. The means are weighted to population totals and all dollar amounts in our analyses are converted to constant 1990 dollars. In Table 1 the time-varying variables are reported for the year prior to first eligibility. Our data include socioeconomic and demographic characteristics of mothers and families. In addition, for the divorced or separated sample, we are able to measure the father's age, education and income levels using information gathered prior to the separation.¹²

There are some striking differences between our two samples. Compared to those divorced or separated, the nonmarital birth sample has a much larger proportion of blacks—54 percent versus 12 percent—and substantially lower mother's annual earnings—\$4,500 versus \$8,600. In addition, fathers of out-of-wedlock children are more likely to have no contact with their children—40 percent versus 10 percent—and the frequency of monthly contact is smaller for the out-of-wedlock sample—41 percent versus 72 percent. It is clear, however, that there is still a substantial degree of contact between these fathers and their children. Our data show that more than 22 percent of fathers of nonmarital children actually reside in the same household with the mother and child sometime during the child's life.

Award rates are 74 percent and 35 percent for those whose marriage ended in divorce or separation and those with a child born out of wedlock, respectively. This compares to award rates of 73 percent and 27 percent reported by the 1991 CPS Child Support and Alimony data. Our award rates for the nonmarital birth sample are slightly higher than those reported by the CPS for never-married mothers. This difference may be due to the fact that award rates for never-married mothers have been rising over time, and our sample consists of women who are at most 36 years old and whose childbearing was more recent. For those with child-support awards, the mean monthly award for the divorced or separated sample is \$286. The amount stipulated by the child-support guideline for those living in states with guidelines is \$350 for the same sample, 22 percent higher. Because of lower incomes and a smaller number of children, the mean monthly child-support award for respondents in the nonmarital birth sample is much lower than for the divorced or separated respondents—only \$229.¹³

Table 1 also shows the variation in legal regimes in our sample. At the time of first eligibility 42 percent of the divorced or separated sample lived in states with guidelines. This is true for only 14 percent of the nonmarital birth sample, reflecting the fact that eligibility for this sample began earlier, at the time of the first child's birth.

12. We deleted 11 cases from the divorced or separated sample in which father's age or education was missing. Six percent of the remaining fathers had missing income data. We substituted the average father's income in the sample and included a dummy variable indicating that income is missing in our multivariate analyses.

13. We are unable to calculate the guideline formula amounts for the nonmarital birth sample because information on father's income is not generally available.

Table 1
Weighted Sample Means

	Reason for Father's Absence			
	Divorce or Separation		Nonmarital Birth	
	All	With Award	All	With Award
Any award (percent)	73.8	100.0	35.3	100.0
Any award (percent): (if marriage ended in divorce)	79.2	100.0	—	—
Any award (percent): (if marriage ended in separation)	51.7	100.0	—	—
Monthly award (1990 dollars)	—	\$286 (180)	—	\$229 (285)
Received award within two years (percent)	—	80.7	—	32.2
Lived in state with guidelines (percent) ^a	42.0	41.4	13.9	9.7
State guideline award for a family with median income ^{a,b}	\$396 (46)	\$395 (50)	\$397 (49)	\$401 (64)
Calculated guideline amount ^c	—	\$350 (146)	—	—
Paternity establishment rate in state ^a	—	—	26.2 (19.0)	29.4 (20.3)
Black (percent)	12.0	8.6	54.1	45.0
Hispanic (percent)	7.3	5.8	7.8	8.2
Mother's education	12.3 (1.8)	12.5 (1.8)	12.1 (1.9)	12.1 (1.9)
Mother's annual earnings (in 1,000s of 1990 dollars) ^a	8.6 (8.1)	8.6 (8.2)	4.5 (6.9)	4.5 (6.9)
Mother employed before first survey at risk (percent) ^a	77.6	79.0	65.0	68.8
Father's education	12.2 (1.8)	12.3 (1.8)	—	—
Father's annual earnings (in 1,000s of 1990 dollars)	20.7 (11.0)	21.6 (12.0)	—	—
Father has monthly contact (percent) ^d	72.0	76.3	41.0	45.9
Father has infrequent contact (percent) ^d	18.0	16.2	18.5	11.2
Father has no contact (percent) ^d	10.0	7.5	40.6	43.0
Father ever lived with child (percent)	—	—	22.4	18.7
Duration of marriage	6.3 (3.4)	6.3 (3.2)	—	—
Marriage ended in separation (percent)	—	—	—	—
Number of eligible children in family ^d	1.6 (0.7)	1.6 (0.7)	1.1 (0.3)	1.1 (0.4)
Mother's age at birth of first child	20.9 (3.2)	21.0 (3.3)	20.2 (4.0)	20.1 (3.5)
Sample size	323	222	470	156

Note: Standard errors are in parentheses.

a. Refers to calendar year prior to first survey at risk.

b. Reported only for families living in states with guidelines.

c. Measured sometime during the marriage

d. Reported during the first survey at risk.

e. Because guideline formulas use father's income, the amount can only be calculated for divorced or separated families living in states with guidelines.

V. Award Rate Analysis

In this section we examine whether guidelines affect the probability that an award will be made. The data for the award rate analysis are arranged in person-year format. The dependent variable is whether the respondent was awarded child support since the last survey. Each observation represents a year in which a woman would be eligible to have a child-support award established. The first year at risk is either the first survey following the birth of the oldest eligible child (nonmarital birth sample) or the first survey following the date of separation or divorce. The last year at risk is either the survey following the date of the child-support award or 1992 for censored observations. The date of the award is taken from the retrospective reports about child-support awards asked in the 1993 interview. Time-varying characteristics are reported for the calendar year prior to the current survey.¹⁴

When the data are arranged in person year format, the logit regressions described in Table 2 can be interpreted as discrete hazard models.¹⁵ We estimate two models for each sample, one without and the other with a linear trend variable. The award rate hazards are estimated separately for the divorced-separated sample and the nonmarital birth sample for three reasons. First, we expect the financial resources of the father to affect the probability of an award, but father's characteristics are only available for the divorced-separated sample.¹⁶ Second, the process that leads to child-support awards in the case of divorce is quite different from the process that leads to child-support awards for children born out-of-wedlock, so different variables are likely to be important for each sample. For example, a legal document is required to dissolve a marriage, and the determination of child support is a part of that legal process. In contrast, children born out-of-wedlock are only eligible for child support after paternity has been established, and, historically, paternity establishment rates have been low. For example, the average state paternity establishment rate for our sample in the first survey at risk is only 26 percent.¹⁷ Third, as mentioned above, the award rates differ substantially for the two samples. The average *annual* award rates for the divorced-separated and nonmarital birth person-year samples are 23 percent and 4 percent, respectively.¹⁸ These differences are important to keep in mind when evaluating the magnitudes of the marginal probabilities reported in Table 2.

As discussed above, we expect the probability of an award to be affected by the parents' financial resources, characteristics of the previous marriage (for the di-

14. During the first survey at risk, marital status, number of eligible children and father/child contact are measured for the current survey, because, during the prior survey, by definition, the father is in the household and there are no children eligible for child support. Similarly, the interpretation of marital status during the prior survey is problematic for the divorce-separated sample, because, by construction, all of the respondents are married.

15. See Allison (1984) for more details about discrete hazard analysis.

16. When fathers of out-of-wedlock children are living in the same household as the respondent, it is possible to observe their earnings. This group, however, is small and is likely to be different in unobservable ways from the full nonmarital birth sample.

17. Paternity establishment rates have been increasing over time and in fiscal year 1996 reached 55 percent (Office of Child Support Enforcement 1996).

18. Because of the low award rate the number of years at risk is much larger for the nonmarital birth sample.

Table 2
Discrete Time Hazard of the Probability of Receiving a Child-support Award

	Reason for Father's Absence			
	Divorced or Separated		Nonmarital Birth	
	Model 1	Model 2	Model 1	Model 2
Constant	-0.625** (3.04)	-0.693** (3.31)	-0.102** (2.73)	-0.100** (2.70)
State has guidelines ^a	0.090** (3.02)	-0.010 (0.23)	0.033** (3.88)	0.025** (2.55)
Paternity establishment rate in state	—	—	0.043** (2.48)	0.041** (2.36)
Trend	—	0.047** (3.80)	—	0.003 (1.26)
Mother's education	0.011 (1.15)	0.015 (1.50)	0.002 (1.09)	0.002 (1.15)
Mother employed before 1st survey at risk ^a	0.010 (0.32)	0.014 (0.45)	0.011* (1.84)	0.010* (1.73)
Mother's annual earnings (in 1,000s of 1990 dollars)	0.003 (1.48)	0.002 (1.05)	0.000 (1.26)	0.000 (1.16)
Father's Education	0.003 (0.31)	0.003 (0.32)	—	—
Father's annual earnings (in 1,000s of 1990 dollars)	0.001 (0.48)	0.001 (0.48)	—	—
Black ^a	-0.097** (3.28)	-0.102** (3.52)	-0.036** (3.85)	-0.036** (3.89)
Hispanic ^a	-0.071** (2.53)	-0.064** (2.29)	-0.009 (1.21)	-0.010 (1.32)
Currently separated ^a	-0.106** (3.67)	-0.110** (3.72)	—	—
Currently married	-0.108** (2.84)	-0.104** (2.79)	-0.013 (1.42)	-0.014 (1.43)
Duration of previous mar- riage	-0.007 (1.09)	-0.014** (2.03)	—	—
Number of eligible children in family	0.068** (2.77)	0.055** (2.20)	0.001 (0.14)	0.000 (0.07)
No eligible children in house- hold at interview date ^a	0.078 (1.19)	0.080 (1.23)	-0.002 (0.15)	-0.002 (0.17)
Father ever lived with child ^a	—	—	-0.001 (0.10)	-0.000 (0.01)
Any younger eligible sib- lings ^a	—	—	0.005 (0.52)	0.005 (0.55)

Table 2 (continued)

	Reason for Father's Absence			
	Divorced or Separated		Nonmarital Birth	
	Model 1	Model 2	Model 1	Model 2
Mother's age at birth of first child	0.006 (1.02)	0.000 (0.03)	-0.002* (1.69)	-0.003** (2.08)
Father has monthly contact with children ^a	0.124** (2.68)	0.136** (2.92)	0.039** (3.50)	0.039** (3.50)
Father has infrequent contact with children ^a	0.113* (1.92)	0.124** (2.09)	0.039** (2.82)	0.039** (2.82)
First year at risk ^a	0.034 (0.66)	0.024 (0.48)	0.038** (3.00)	0.038** (3.00)
Second year at risk ^a	0.119** (2.34)	0.112** (2.27)	0.008 (0.76)	0.008 (0.70)
Time between surveys (in months)	0.016** (1.99)	0.014* (1.72)	-0.001 (0.72)	-0.001 (0.70)
Duration at risk (in years)	-0.047** (3.06)	-0.016 (0.93)	-0.003** (2.01)	-0.001 (0.58)
Sample size	946	946	3,695	3,695

Note: The sample is women who have children with absent fathers due to marital disruption or nonmarital childbearing. Each observation represents a year in which a woman would be eligible to have a child-support award established. The first year at risk is either the first survey following the birth of the oldest eligible child (nonmarital birth sample) or the first survey following the date of separation or divorce. The last year at risk is either the survey following the date of the child-support award or 1992 for censored observations. The estimates reported for continuous variables are marginal probabilities $2P/2X = b(\bar{P}) (1 - \bar{P})$ from the logit $P = 1/(1 + \exp(-Xb))$. Estimates reported for dichotomous variables are $P_1 - P_0$ where $P_{0,1} = 1/(1 + \exp(-Xb))$ where the dichotomous variable takes the value of 0 and 1 respectively and all other independent variables are set at their mean. Absolute values of *t*-statistics are reported in parentheses. In addition to the variables reported above, regression also include controls for missing father's education, missing data for father's contact with children, and an indicator that the year is after 1983 (to account for variables that were only measured in surveys after 1983).

a. Dichotomous variable equal to one if the woman has the given characteristic and zero otherwise.

** Estimated coefficient is significantly different from zero at 5 percent.

* Estimated coefficient is significantly different from zero at 10 percent.

vorced-separated sample), the father/child relationship, and the legal environment. The results for divorced or separated women in Column 1 show that the presence of guidelines increases the probability of an award by nine percentage points. This effect represents an increase of nearly 40 percent. The proportion of states with guidelines has been increasing over time. To capture the possibility of secular increases in child-support award rates over time that are independent of guidelines, in Column 2 we introduce a linear trend term equal to one if the first survey at risk

is 1979, two if the first survey at risk is 1980, etc. The trend variable is positive and highly significant: award rates are increasing by 4.7 percentage points a year. The inclusion of the trend variable, however, washes out the effect of guidelines.¹⁹

In contrast, for the nonmarital birth sample, the positive impact of guidelines on the probability of an award (an increase of 3.3 percentage points in Column 3) remains significant and only slightly smaller when the trend variable is included (Column 4). This effect is large compared to the average annual award rate of about 4 percent for this sample. Our results differ from those found by Beller and Graham (1993). They find a negative effect of guidelines on award rates for never-married women with births between 1978 and 1986. During this period, less than one-third of never-married women and 13 percent of married women resided in states with guidelines. In their study the most pronounced negative effects were for women in states that adopted guidelines the earliest. Our data allow us to include all states before and after the adoption of guidelines. Combined with Beller and Graham's (1993) results, our findings suggest that later guidelines have had a more positive affect on award rates.

The results in Table 2 also highlight the role of state paternity establishment efforts in securing awards for children born outside of marriage. We measure the effectiveness of these efforts by including a variable measuring the ratio of paternity establishments reported by the child support (IV-D) agency to all nonmarital births in each state.²⁰ Column 3 indicates that an increase in the paternity establishment rate of 20 percentage points (about one standard deviation) increases the annual award rate a little less than one percentage point. This represents an increase in award rates to unmarried mothers of nearly 25 percent. An effect of similar magnitude is reported when the trend is included.

Our theoretical framework suggests that the father's desire to support his children should have an effect on the probability of an award. The coefficients on the father/child contact variables strongly support that conjecture.²¹ Both monthly contact and some yearly contact increase the conditional probability of an award by more than 11 percentage points for the divorced-separated sample compared to families where there is no contact between the father and his children. The effect of father-child contact is also positive and significant for the nonmarital birth sample.

Consistent with other research (Peterson and Nord 1990; Beller and Graham 1993; Hanson, Garfinkel, and Miller 1996) we find that award rates are related to current marital status. The probability of an award is lower for married women, most likely because these women have access to additional financial resources such as the earnings of a new husband. This result reaches conventional levels of significance only

19. National statistics do not show increases in award rates over time for divorced women. Because the NLSY79 is a cohort-based data set, it is likely that our trend results are capturing an increase in award rates as the sample ages.

20. This statistic does not exactly measure the fraction of births in a year in which paternity is established, because some of the paternity cases may be for older children. However, it is the standard measure of paternity program effectiveness reported by states (OCSE, various years).

21. We interpret the frequency of father/child contact as a proxy for his altruism toward his children. Note that father-child contact is lagged one year in this hazard model so the causation is more likely to go in the direction we suggest rather than the reverse.

for the divorced-separated sample.²² Separated women also have substantially lower conditional probabilities of awards—more than 10 percentage points lower compared to divorced women. Many of these women subsequently divorce and receive child-support awards at that time. Although separated women were eligible for child-support awards, there was no legal requirement that separated parents had to reach an agreement about child support at that time.

One other difference between child-support awards to divorced or separated mothers and those with children born out-of-wedlock is the timing of their awards. The shape of the hazard function is indicated by the coefficients on the variables *First Year at Risk*, *Second Year at Risk* and *Duration at Risk*. For the nonmarital birth sample, the conditional probability of receiving a child-support award is highest in the first survey at risk just after the birth of the child. In the second year the probability drops off precipitously and continues to decrease over time. In contrast, for the divorced-separated sample, the award rate is highest in the second year at risk. This pattern is likely due to the fact that the first year may reflect a separation and that child support is often not legally established until the date of divorce. After the second year at risk, the hazard declines over time.

Other socioeconomic and demographic variables are also important determinants of award rates. Even controlling for parents' incomes and education, there are differences in award rates by mother's race. As in most prior studies (Peterson and Nord 1990; Beller and Graham 1993; Hanson, Garfinkel, and Miller 1996), we found that the probability of a child-support award is lower for black and Hispanic mothers, although the effect for the latter group does not reach conventional levels of significance for our nonmarital birth sample. Surprisingly, neither parents' incomes nor education levels are significant, although there is some evidence of a small positive effect if the mother worked prior to the birth of the child for the out-of-wedlock sample. Prior evidence regarding the effect of parents' incomes on child-support awards is mixed. Peterson and Nord (1990) find no significant effect of mother's income on the probability that she is currently due child support, while Teachman's (1990) results suggest a positive effect of both mother's and father's incomes on the probability of an award following divorce.

VI. Analysis of Award Levels

Child-support guidelines have been promoted, in part, as a solution to the perceived inadequacy of child-support awards. To evaluate the success of this aspect of the policy, in this section we focus on the impact of the presence of guidelines on award levels. We conduct these analyses on 240 divorced or separated

22. Many women who have a child out of wedlock subsequently marry. If a respondent married the father of the out-of-wedlock child, she is in our divorced-separated sample only if she later was divorced or separated from the father. But if she married someone other than the father, she is included in our out-of-wedlock sample. Most other analyses of child-support awards for children born out-of-wedlock ignore cases in which the mother is married to someone other than the child's father. For example, these women are not identified in the biannual CPS Child Support and Alimony data.

women and 178 women with children born out-of-wedlock who report having a child-support award at the time of the 1993 survey, and who have nonmissing reports of their original child-support award.²³

In Table 3 we report results from regressions of the actual award (for those with positive awards) by reason for father's absence. Awards are measured in constant 1990 dollars. The sample in Columns 1 and 2 include divorced or separated women who reside in states both with or without guidelines. We include a dummy variable indicating that the mother was living in a state with guidelines at the time of the survey closest to the date of her child-support award. We also control for factors that one would expect to determine child-support awards such as parental income, number of children and family characteristics. In Column 2, we include state fixed effects. We use this mean-differencing technique to control for state specific unobservables. Thus, we are examining the differences in individual child-support awards within each state before and after guidelines are adopted. The coefficient on *State has Guidelines* indicates the increase in awards after a state adopts guidelines.

Our results, in both Columns 1 and 2, show that the presence of guidelines in the mother's state of residence has no significant effect on the level of the award for divorced and separated women.²⁴ The negative coefficient on the linear trend indicates that real monthly awards, controlling for father's income, declined throughout the period by approximately \$15 per year.

Family characteristics are also important in determining the size of the child-support award. Awards are typically higher for large families (Sonenstein and Calhoun 1990; Peterson and Nord 1990; Robins 1992; Beller and Graham 1993; Graham 1995). In our results, the number of eligible children increases the award at a decreasing rate, though the quadratic term is not precisely estimated. This nonlinear pattern is reflective of the treatment of family size in the majority of guideline formulas and is similar to results in other studies (Seltzer and Garfinkel 1990; Hanson, Garfinkel, and Miller 1996). In contrast to the award rate results presented above, fathers' income is an important determinant of child-support award levels (Sonenstein and Calhoun 1990; Peterson and Nord 1990; Teachman 1990). Many guideline formulas also account for father's income in a nonlinear fashion, and our results demonstrate that fathers with greater income face higher awards, but the increase diminishes as income rises. Consistent with other studies, we find that mother's earnings have no effect on the size of the child-support award (Teachman 1990; Peterson and Nord 1990).²⁵

Fathers who see their children after divorce or separation have larger awards, perhaps reflecting a stronger commitment toward their children, but only the coeffi-

23. These samples differ slightly from those reported in Table 1. In order to increase sample sizes for the analyses in this and subsequent sections, we include families with awards that were left out of Tables 1 and 2 due to missing data for some of the independent variables included in Table 2.

24. In other specifications (not shown) in which we distinguish between advisory and presumptive guidelines, we find that advisory guidelines do have a small positive effect on awards. It is possible that states with presumptive guidelines have formulas requiring lower child-support awards. There is some evidence that as states made their guidelines presumptive, the level of awards declined slightly (Pirog-Good 1993).

25. The insignificant effect of mother's income is fairly consistent with the guideline formulas. Although both the income-shares and Melson formulas take CP income into account, higher CP income reduces award percentages only slightly.

Table 3
OLS and Fixed Effects Regressions of Monthly Award Level by Reason for Father's Absence

	Divorced or Separated Sample		Nonmarital Birth Sample	
	OLS	Fixed Effects	OLS	Fixed Effects
State has guidelines	13.03 (0.28)	8.18 (0.16)	77.79 (1.07)	132.17 (1.47)
Number of eligible children in family	145.82* (1.76)	55.84 (0.63)	44.91 (0.74)	49.14 (0.67)
Number of eligible children squared	-13.07 (0.64)	12.69 (0.58)	-4.57 (0.36)	-3.73 (0.26)
Father's monthly earnings (100s of 1990 dollars)	13.98*** (5.40)	12.5*** (4.46)	—	—
Father's earnings squared	-0.11*** (3.74)	-0.09*** (3.15)	—	—
Mother's monthly earnings (100s of 1990 dollars)	0.89 (0.36)	1.9 (0.71)	8.18*** (3.14)	7.30** (2.49)
Duration of previous marriage	7.09 (1.55)	6.70 (1.36)	—	—
Father's education	5.66 (0.79)	7.50 (1.02)	—	—
Mother's education	-9.50 (1.15)	-13.44 (1.43)	11.36 (1.22)	13.99 (1.36)
Father has infrequent contact with children	93.15 (1.64)	109.91* (1.87)	10.27 (0.19)	-8.32 (0.12)
Father has monthly contact with children	73.41 (1.41)	79.67 (1.50)	82.19 (1.65)	84.20 (1.41)
Black	14.35 (0.42)	-2.59 (0.07)	-45.43 (1.12)	-35.04 (0.67)
Hispanic	13.77 (0.41)	-11.34 (0.28)	-2.60 (0.05)	-38.25 (0.65)
Trend	-14.62* (1.75)	-16.69* (1.88)	-7.42 (0.66)	-10.24 (0.75)
Intercept	-26.71 (0.18)	—	-19.52 (0.13)	—
Sample size	240	240	178	178
R Squared	0.295	0.444	0.142	0.286

Note: These samples consist of mothers who had children eligible to receive child support living in their homes in 1992 and 1993 and who report having a child-support award at the time of the 1993 survey. The monthly award amounts are converted to constant 1990 dollars. Absolute value of *t*-statistics are reported in parentheses. In addition to the variables reported above, regressions also include controls for missing father's income, missing data for father's contact with children, and an indicator that the year is after 1983 (to account for variables that were only measured in surveys after 1983).

*** Estimated coefficient is significantly different from zero at 1 percent.

** Estimated coefficient is significantly different from zero at 5 percent.

* Estimated coefficient is significantly different from zero at 10 percent.

cient on *Father has Infrequent Contact with Children* in the fixed effects model reaches conventional levels of significance. We might expect more altruistic or committed fathers to contribute more in the form of financial support, and therefore frequent contact between father and child would also increase awards. The prediction is complicated by the relationship between caring and custody. If fathers with frequent custody are more likely to have some overnight custody, then we would expect awards to be lower, because these fathers are contributing resources to their children directly.²⁶

Although Table 2 shows that award rates are significantly lower for blacks and Hispanics, in Table 3 there are no significant differences in award levels by race or ethnicity. Beller and Graham (1993) and Robins (1992), analyzing samples of all women from the Current Population Surveys find lower award levels for black and Hispanic women.²⁷ We find similar negative race effects if we combine our divorced-separated and nonmarital birth samples. This negative effect may be due to the fact that black women are over represented in the nonmarital birth sample where awards are lower.

The final two columns in Table 3 report regression coefficients for the nonmarital birth sample. The results in Column 3 (without state fixed effects) indicate that awards in states with guidelines are \$78 higher than those in nonguideline states, but this effect is not precisely estimated. When state fixed effects are included (Column 4) the presence of guidelines is associated with an increase in child-support awards of \$132 per month which approaches the standard level of significance (p -value = .145).²⁸

Our results for the nonmarital birth sample also indicate that mothers with higher incomes are more likely to receive higher child-support awards. Rather than being causal, mother's income may be a proxy for the level of the father's income. To test this hypothesis, we run regressions (not shown) for the divorced or separated sample excluding father's income, and the resulting coefficient on mother's income becomes positive and significant. Sonenstein and Calhoun (1990) find a positive effect of mother's income on awards even controlling for father's income. Teachman (1990) suggests that mother's income may represent her negotiating strength.

Nonmarital fathers who see their children monthly have awards that are nearly \$82 higher than those who have no contact with their children. There is no increase in awards when the father and child see each other only infrequently. In addition, we note that the negative time trend in awards is less pronounced for the nonmarital birth sample than it was for divorced and separated women.

Because guidelines increase award rates, we were concerned that the sample with awards may increasingly consist of fathers with lower awards. Because the dependent variable in these regressions is the award amount *conditional upon having a child-*

26. See Peters et al. (1993) for evidence of the relationship between changes in custody and changes in divorce agreements.

27. Beller and Graham (1993) also find negative effects for black ever-married women with child-support awards prior to 1986, though we find no race differences in our divorced-separated sample. Because the composition of our samples differ, it is impossible to distinguish whether the race difference has diminished over time or is due to the higher prevalence of nonmarital births to black women.

28. In other specifications (not shown) the magnitude of the effect was similar and the estimates were significantly different from zero.

support award, we also ran these models using a standard two-stage Heckman correction.²⁹ We found no evidence of significant selection bias.

VII. Variation in Awards

In this section we turn our attention to the ability of guidelines to promote horizontal equity by requiring similar child-support awards for families in similar circumstances. It has been suggested that making the default position of the court known to parents at the outset of their child-support negotiations may provide a starting point and pave the way for more amicable settlements (Williams 1994). Public perception of widely differing awards in similar cases fosters a sense that child-support awards are inequitable and may result in lower compliance. For example, Lin (1998) finds evidence that compliance with child-support awards is greater when fathers perceive that the award is fair.

Child-support awards vary according to the circumstances of families. First, awards reflect both the ability of the NCP to pay, and the financial need of the child(ren). To this end, guideline formulas base awards on parents' incomes and family size. Moreover, placing the responsibility for the development of guideline formulas in the hands of the states means that like families residing in different states may have different child-support obligations, even if guideline formulas are used in both cases. Differences may also occur over time as the legal climate changes and states modify their guideline levels. Finally, other factors may be considered in voluntary child-support agreements that are not included in the formulas.

We compare variation in child-support awards for divorced or separated women living in states after guidelines are adopted to those living in states prior to the adoption of guidelines. Because father's income is not reported and sample sizes are inadequate to accurately measure residual variation, we are unable to examine variation in awards for the nonmarital birth sample.

Monthly child-support awards are \$330 on average for divorced or separated women in states without guidelines (in 1990 dollars) and \$352 for those where guidelines are in place. The standard deviation of awards for those in states with guidelines—\$193—is nearly 25 percent less than the standard deviation of \$253 for those in states without guidelines. This comparison does not necessarily imply that families in similar circumstances are treated more alike after guidelines have been adopted, rather it may reflect a more homogeneous sample population.

In order to measure the variation in awards for like families we calculate standard errors from three regression models that control for sets of variables likely to account for differences in awards. Model 1 includes factors used in most guideline formulas: number of children and both parents' incomes. Model 2 adds in a linear time trend and state fixed effects to control for across-state variation. Model 3 incorporates

29. Our first-stage probit of award probability is identified by the inclusion of the paternity establishment rate for the nonmarital birth sample and a dichotomous variable indicating if the parents were separated for the divorced or separated sample.

Table 4
*Standard Error of Estimates of Awards by Guideline Status—Divorced
 or Separated Sample*

	Awards in Dollars		Log Award	
	In States with Guidelines	In States without Guidelines	In States with Guidelines	In States without Guidelines
Standard deviation	193.10 ^a	252.87 ^a	0.572	0.603
Standard error of the estimate Model 1 (adds incomes and number of children)	156.02 ^{a,b}	230.41 ^{a,b}	0.472 ^b	0.527 ^b
Standard error of the estimate Model 2 (adds fixed effects and trend)	150.55 ^a	211.24 ^a	0.496	0.495 ^b
Standard error of the estimate Model 3 (adds nonguide- line variables)	149.81 ^a	206.07 ^a	0.491	0.486

Note: Standard errors of the estimates are calculated using the following formula $s_e = (SSE/(n - k - 1))^{.5}$ where n is the number of observations in the regression and k is the number of explanatory variables. The F -test statistic is calculated as $((R^2 - R^{*2})/J)/((1 - R^2)/(n - k))$ where R^2 is from model i , R^{*2} is from model $i - 1$, J is the number of additional variables included in model i , n is the number of observations, and k is the number of explanatory variables in model i .

a. Standard deviation or standard error in states with guidelines is significantly different from states with no guidelines at the 5 percent level.

b. F -test indicates that s_e from model i is significantly lower than s_e from model $i - 1$ at the 5 percent level.

additional family characteristics that are not accounted for by the guideline formulas.³⁰

Table 4 allows us to assess the degree to which variation in child-support awards is accounted for by the specifications of each of our three models. We report the standard deviation of the mean award in the first row and the standard error of the estimate for each of the regressions in the last three rows.³¹ Accounting for differences in the most basic family characteristics—parents' incomes and number of children—significantly reduces the unexplained variation 37 dollars (from \$193 to \$156) for the guideline sample and 22 dollars for the nonguideline sample. The standard error of the estimate numbers can be interpreted as follows: In states with

30. See Table 3 for additional variables.

31. Regression results available from the authors upon request.

guidelines, for example, two-thirds of all awards fall within \$156 of the award that would be predicted in Model 1.

Because the family court environment may vary across states and across time we compare the standard errors calculated from Model 1 to those from Model 2 in which state fixed effects and a linear time trend are added. Standard errors of the estimate calculated from Model 2 capture only within-state variation in awards controlling for income and number of children. The standard error remains higher for those in states without guidelines—\$211 compared to \$151.

Awards may differ from the guidelines (even in states with presumptive guidelines) for many reasons. Some of the difference may be accounted for by measurement error in our data, while some may be due to explicit deviations from the guideline amounts that take into account the preferences of the parents.³² Additional characteristics, not accounted for in the formulas, such as parents' education levels, mother's race and ethnicity and measures of contact between the father and child(ren), are added to the regression in Model 3. The last row in Table 4 indicates that the addition of these other factors significantly reduce the standard errors of the estimates for both of our samples, although these reductions are relatively small in magnitude.

Do guidelines improve horizontal equity with regard to child-support awards? Our results are mixed. Guidelines could reduce variation in child-support awards in two ways. They might make awards more similar for families at all income levels, or they might affect awards for those at the tails of the income distribution. To differentiate between these two possibilities we estimate the standard errors above using child-support award amounts as the dependent variable (Columns 1 and 2 in Table 4) and then reestimate the standard errors using the natural log of the child-support award as the dependent variable in our regressions to minimize the impact of outliers. The log award results are reported in the final two columns of Table 4. Controlling for observable differences in incomes, family size, location, time of award, and other factors such as education and father-child contact, the results in Columns 1 and 2 indicate that the standard error of estimated awards is significantly smaller for those divorced and separated women residing in states with guidelines. This implies that like families, as measured by the factors above, have more similar awards after the adoption of child-support guidelines. In the models that use the natural log of awards as the dependent variable, the standard deviation of log awards is slightly higher in states without guidelines. However, neither this difference nor differences in the standard errors of any of the three regression models are significantly different from zero. These findings, in combination with the results in Columns 1 and 2, suggest that the adoption of guidelines reduces the likelihood of extreme awards in some cases, but does not appear to improve horizontal equity in awards for the entire distribution of families.

32. In other regressions (not shown here), we included a dummy variable indicating whether or not the respondent reported using child-support guidelines. Those who report that formulas were used to calculate their awards have awards that more closely reflect our calculation of the guideline award. The measurement error for those who used guidelines is to slightly underestimate the guideline amount.

VIII. Deviations From Guideline Formulas

Once a state has adopted guidelines, it is intended that they be widely used in determining child-support awards, though deviations are allowed if parents agree. To compare actual awards with those required by the guidelines, we calculate a family's *Guideline Award Amount* by applying the guideline formula in effect in the mother's state of residence at the time of her award to both parents' incomes and the number of children.³³ Because of data requirements, the guideline award can be constructed only for divorced or separated women living in states with guidelines. It represents an estimate of the default award that would be stipulated if this woman could not reach an agreement with her ex-spouse.

If all awards were based solely on the formula, we could exactly replicate a family's award with our calculation. The mean difference between actual awards and *Guideline Award Amount* in our sample is $-\$31.2$, however, indicating that actual monthly awards average slightly more than 30 dollars below the amount stipulated in the guideline. This difference is not significantly different from zero.³⁴

Some of this difference may be due to measurement error. Income reports from survey data are often inaccurate, though our information on the income of an absent father is better than most data used in child-support studies. Reports of the father's income are available in the NLSY79 for every interview in which the father resides with the mother and child. Though we do not have reports of father's income at the time of the award, we have (often multiple) reports of his income prior to the separation or divorce. It should also be noted that we are unable to adjust for child care expenses, union dues and state taxes as is called for in some guideline formulas.

We explore the possibility that there are also systematic deviations from the guideline formulas. Awards may differ from the guidelines in response to circumstances that are not accounted for in the formulas. For example, if a father makes direct expenditures on the child or agrees to increase the time that he spends with his child, the parents may agree to a lower child-support award. These types of cooperative agreements may be in the best interests of both parents and the child. On the other hand, deviations from the child-support guidelines may occur because one parent has greater bargaining power and can manipulate the award in his/her favor.

A review of child-support awards in eleven states (Evaluation of Child Support Guidelines 1998) reports that formal deviations occurred in 17 percent of the 4,000 child-support awards studied.³⁵ Nearly 20 percent of these deviations resulted in awards that exceeded the amount specified by the guidelines while the remaining 80 percent were reductions in child-support obligations. Reasons given for these deviations included visitation adjustments, low income of the NCP and a sense that the guidelines were unfair. Awards also differed from guideline amounts even when a formal deviation is not noted. Nearly half of the 19 counties in the study reported discrepancies between actual awards and guideline awards in more than 20 percent of their child-support cases.

33. Because we cannot measure exact custodial arrangements but know that the child resides primarily with the mother we assign 80 percent residential time to the mother in formulas that adjust for custody.

34. The standard deviation of the difference is 172.48.

35. Formal deviations occur when it is officially documented that the guidelines were not used.

In our data we find that more than half of the child-support awards differ from the guideline formula by more than 30 percent. These differences are almost evenly split between awards that exceed the guideline and those that are below the guideline (33 percent and 37 percent respectively). In Table 5 we investigate the determinants of the difference between the actual award and the guideline award. The results in Column 1 are similar to those in Column 2 (which adds state fixed effects) and show that actual awards differ from the guideline amounts in response to various characteristics of the father. For example, a family in which the father is highly educated deviate upward from the guideline amount. This may be a reflection of the fact that many guidelines state that a parent's potential income be used in the guideline formula. A father's education level may be a good indication of potential earnings in addition to his reported income. Actual awards are higher than the guideline awards for fathers who have infrequent contact with their children. This may include fathers who live far from their child and can manage only infrequent contact, but care enough to increase their financial support. In contrast, as father's income rises, the actual award falls relative to the guideline award. Figure 3 illustrates this relationship. A comparison of the coefficients indicates (for two-child families) that at earnings below \$18,100 actual awards are above guideline awards, and as income increases above this amount, awards fall further and further below the guideline amounts. Similar evidence has been found in a review of child-support cases in New York.³⁶

IX. Conclusions

Recent welfare reform efforts have emphasized increasing parental responsibility for the financial well-being of children. Federal legislation requiring states to adopt and use guideline formulas in setting child-support awards has been an important part of these efforts. In this paper we examine the effect of state guidelines on award rates, award levels, variation in awards and deviations from guideline formulas for families with awards made between 1979 and 1992, a time period encompassing the enactment of two major pieces of federal child-support legislation. We have collected data on state guideline formulas over time that allow us to calculate actual guideline amounts for mothers of children with absent fathers for any data set that includes both mother's and father's income, number of children and state of residence. In our analysis we use a sample of women from the NLSY79, and we do our analyses separately for mothers with children born out-of-wedlock and mothers whose marriage ended in divorce or separation.

Policies aimed at improving child-support award rates and increasing award levels are intended to provide benefits for children. In fact, the receipt of child-support payments has been shown to improve various measures of child well-being over and above its contribution to family income (Argys et al. 1998; Knox 1996; Graham,

36. A review of child support cases in New York State (Evaluation Project Report 1993), finds "high income cases more likely to deviate downward and low income cases more likely to vary upward" from the guideline formulas. They find that fully 78 percent of the child-support awards deviated from the guideline amounts, and these deviations were more frequent for high income fathers.

Table 5

Regressions of Deviations of Actual Awards from Guideline Formulas—Divorced and Separated Sample Living in States with Guidelines

	OLS	Fixed Effects
Number of eligible children in family	10.64 (0.13)	-7.61 (0.08)
Number of eligible children squared	-9.34 (0.47)	0.00 (0.00)
Father's monthly earnings (100s of 1990 dollars)	-15.36*** (3.08)	-16.65*** (2.97)
Father's earnings squared	0.12 (1.17)	0.13 (1.16)
Mother's monthly earnings (100s of 1990 dollars)	0.56 (0.25)	1.36 (0.54)
Duration of previous marriage	0.97 (0.23)	0.87 (0.17)
Father's education	13.77** (2.00)	14.27** (1.90)
Mother's education	-5.35 (0.72)	-1.86 (0.20)
Father has infrequent contact with children	87.89* (1.75)	103.42** (1.84)
Father has monthly contact with children	16.02 (0.35)	27.90 (0.57)
Black	-13.48 (0.41)	-44.51 (1.10)
Hispanic	4.52 (0.13)	-27.60 (0.62)
Trend	-8.86 (1.14)	-6.15 (0.71)
Intercept	179.26 (1.17)	—
R-Squared	0.319	0.491
Sample size	150	150

Note: These samples consist of divorced or separated mothers living in states with child-support guidelines who report having a child-support award at the time of the 1993 survey. Absolute value of *t*-statistics are reported in parentheses. In addition to the variables reported above, regressions also include controls for missing father's income, missing data for father's contact with children, and an indicator that the year is after 1983 (to account for variables that were only measured in surveys after 1983).

*** Estimated coefficient is significantly different from zero at 1 percent.

** Estimated coefficient is significantly different from zero at 5 percent.

* Estimated coefficient is significantly different from zero at 10 percent.

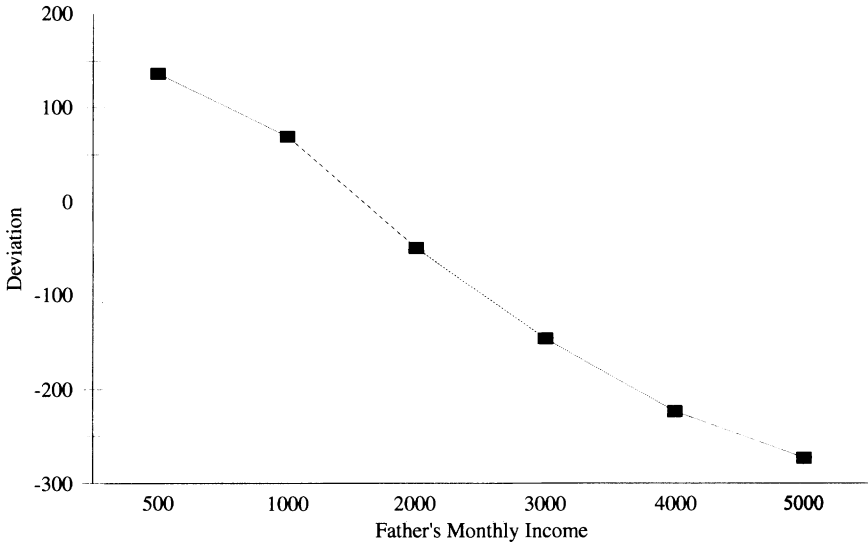


Figure 3
Deviations of Actual Award From Guideline Formula

Beller, and Hernandez 1994). Our results indicate that child-support guidelines have many positive effects on child-support outcomes, with the most significant impact for the nonmarital birth sample.

Specifically, we find that living in a state with guidelines significantly increases the probability of obtaining a child-support award for women with children born out-of-wedlock. Because these women have much lower award rates, the success of this policy is encouraging. In addition, we find that improvements in state paternity establishment efforts have further increased award rates for children born outside of marriage. For mothers whose marriage ended in divorce or separation, living in a state with child-support guidelines has some positive effect on award rates, but it is difficult to distinguish that effect from a secular increase in award rates. Aside from the fact that guidelines have increased awards for many women who previously would not have received a child-support award, our analysis of award levels conditional on an award being made yields mixed results. Our results suggest that guidelines have not increased child-support awards among divorced or separated women, but there is evidence that awards for the nonmarital birth sample may be substantially higher when guidelines are present.

Guidelines may also affect other outcomes. It has been suggested that the use of specific formulas to determine awards will ensure that families with similar income levels will have similar child-support awards. This improvement in horizontal equity will benefit children if it results in greater compliance when awards are perceived as being more fair. On the other hand, rigid adherence to guidelines could have potentially negative consequences. Not allowing parents to deviate from guideline

formulas may prevent them from voluntarily reaching an agreement that better accounts for their individual circumstances.

Our data show that awards to divorced and separated mothers which occurred in states without statewide child-support guidelines exhibit more unexplained variation than those awarded to similar mothers in states with guidelines. This pattern is evident both across states and within states and controlling for a wide variety of family characteristics. However, our results seem to suggest that the reduction in variation occurs through eliminating extreme outliers rather than equalizing awards across the entire distribution.

Clearly the adoption of child-support guidelines has not resulted in identical awards for families with similar circumstances. Our results also show that there are systematic deviations of actual awards from those stipulated in the guideline formulas. In particular, fathers with higher incomes have awards that are lower than are required by the guidelines. In addition, we document that factors typically not considered within the guideline formulas (education and father-child contact) affect awards even for individuals living in states with guidelines. The issue of how much latitude courts should give families to deviate from the guidelines is still under debate by policy makers. We leave as a question for future research whether these deviations are beneficial for children because they reflect choices made by cooperating parents, or whether they are a result of a parent with greater bargaining power more easily circumventing the guidelines for his or her own benefit.

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