Fathers Under Fire

The Revolution in Child Support Enforcement

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Chapter 7

The Effects of Stronger Child Support Enforcement on Nonmarital Fertility

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The last twenty years have witnessed fundamental change in child support enforcement in the United States. The Child Support Enforcement (CSE) program, added as part D to Title IV of the Social Security Act in 1975, provided federal backing for state programs designed to locate absent parents, establish paternity and child support orders, and obtain payments.[1] The states' obligation to child support was increased with the passage of the 1984 CSE amendments, which required withholding of support payments from the paychecks and tax refunds of parents delinquent in their support, and which also required states to establish guidelines to be used in child support award determinations (see Dodson 1988). The 1984 amendments also permitted paternity to be established through a child's eighteenth birthday. The Family Support Act of 1988 again increased the role of the states, requiring them to establish presumptive guidelines (quantitative formula) to be used in setting child support levels.[2] There is an important, growing literature on the effect of the legislation on paternity establishment and award determination. Ann Nichols-Casebolt and Irwin Garfinkel (1991), for example, find an increase in child support awards that "appear[s] to be related to changes in policy and practice that have been implemented in recent years" (95).

The success of legislation may also be measured by its effect on the behavior of individuals whose incentives are altered by changes in child support policy and practice. Requiring absent parents to take greater financial responsibility for their children may reduce the desire to become a parent, for example, or to dissolve marriages when children are present. Differences in the timing of guideline adoption and in the generosity of awards over location has allowed researchers to correlate differences in behavior over time and location with differences in CSE policy. For example, Freya Sonenstein, Joseph Pleck, and Leighton Ku (1994) use differences between counties in their child support and paternity establishment programs to investigate whether young men's increased child support obligation has a significant effect on their contraceptive behavior. Their research finds "no path from child support program strength to perceived cost of pregnancy and pregnancy risk behavior" (12). Lucia Nixon (1997) uses cross-state variation in child support enforcement to investigate its impact on rates of marital dissolution and AFDC (Aid to Families with Dependent Children) participation. She finds that child support enforcement reduces both the probability that a woman will become a single parent through divorce and the probability of AFDC participation.

Differences between county- and state-level programs provide a potentially rich source of variation through which differences in behavior may be examined. However, the reasons for differences in states' policies must be well understood before this source of variation is exploited. States that frown on out-of-wedlock childbearing may have both lower rates of out-of-wedlock childbearing and more stringent child support enforcement policies, but the lower birth rates may be the outcome of the underlying ethos in the state, not of child support enforcement. Alternatively, states that have witnessed rapid growth in out-of-wedlock childbearing may be the first states to adopt tougher child support enforcement legislation, which might lead to a positive correlation between out-of-wedlock childbearing and adoption of child support enforcement policies. Estimation of the incidence of enforcement policies that treats them as exogenous may attribute to child support enforcement the effects of some other (possibly unobserved) forces at work. We address this potential problem head on by modeling the timing and generosity of state-level program changes. In doing so, we are able to speak to the political and economic conditions that affect the timing of adoption of stricter child support enforcement and to control directly for the potential endogeneity of state programs.[3]

We find that state child support policies respond both to changes in the states' economic and demographic conditions and to political forces at work within the state. Using the variations in state policies that are due to the sex composition of state legislatures, we find evidence that some state programs—genetic testing to establish paternity, establishment of paternity to age eighteen, and presumptive guidelines—are negatively and significantly correlated with future out-of-wedlock birth rates. Adoption of each of these policies appears to have reduced the rate of out-of-wedlock childbearing by one and a half to two percentage points.

In the next section, we discuss the effect of stricter child support enforcement on nonmarital parenting. In the succeeding section, we estimate policy choice and incidence.

CHILD SUPPORT ENFORCEMENT AND OUT-OF-WEDLOCK CHILDBEARING

Out-of-Wedlock Childbearing

We begin with a simple model of out-of-wedlock childbearing, to make clear the ways in which government programs influence the decision to become a parent. The model is based on two assumptions: (1) women and men calculate the expected benefits and costs of having children out-of-wedlock, and (2) both men and women have access to contraceptives and choose whether to become parents based on the expected costs and benefits. Children are born only if a bargain can be struck between prospective parents so that the expected benefits of parenthood outweigh the costs for both the prospective mother and father. Anything that increases the cost of fatherhood will reduce the probability that such a bargain can be struck and should, then, reduce the number of children born.[4]

We will focus here on the impact of changes in child support enforcement on the incentives of men who may choose, at some cost, to limit their parenting of children out of wedlock. (We have in mind financial and other costs associated with contraception.) Here, we hope to capture some of the important considerations to be included in the empirical analysis that follows.

The probability that a woman bears a child, p, depends in part on her actions and in part on the actions taken by her partner. We assume here that contraception is costly, and that we can describe these costs in monetary terms using a variable x. We assume the probability of childbearing falls with increases in expenditure on contraception, $p'(x) < 0$. We assume that a man's utility depends upon whether he becomes a father. Without a child, his indirect utility is given by

$$u(W - x),$$

where W represents his income. With a child, his utility is given by

$$v(W - x - c),$$

where c represents his child support obligations. (The variable c could also include any side payments made between a man and a woman related to parenthood.) Each man chooses his contraceptive "expenditure" x to maximize

$$(1 - p(x))\, u(W - x) + p(x)\, v(W - x - c). \tag{7.1}$$

The level of contraceptive expenditure that maximizes equation (1), x^*, will depend upon the level of income (and economic conditions more broadly), the cost associated with contraception, the generosity of the child support guidelines adopted by the states, and the strictness with which they are enforced. It is straightforward to show, under a reasonable set of assumptions about the utility functions in both states of the world and the function $p(x)$, that the optimal amount of contraceptive expenditure will rise with increases in child support enforcement, c. We would expect then that increases in child support enforcement would lead to lower out-of-wedlock birth rates.

In the empirical work that follows, we model out-of-wedlock childbearing as a direct reflection of x^*, the contraceptive strategy chosen by young men. Specifically, we estimate equations of the form:

$$\text{Out-of-Wedlock Birth Rate} = f(W, c, S, T) + e, \tag{7.2}$$

where W is captured by state economic and demographic variables; S represents state indicator variables that help to control for unobservable, unchanging qualities of the state that may affect childbearing and that absorb state-specific contraceptive costs; T represents year indicator variables that absorb contraceptive and childbearing costs that vary over time proportionately across states; and c represents measures of child support enforcement. We assume that unobservable variables that affect out-of-wedlock childbearing can be represented adequately by an additive error term, e.

We are primarily interested in estimating the effect of child support enforcement on out-of-wedlock birth rates. Care must be taken, however, in exploring this relationship. If there are determinants of child support enforcement that also affect out-of-wedlock birth rates directly and that are not captured in the variables included in equation (7.2), this will lead to bias in the effect of child support enforcement on out-of-wedlock birth rates. We turn now to determination of state policy and then to the reasons we might expect child support enforcement and out-of-wedlock childbearing to be jointly determined.

Determination of State Policy

State legislators, facing federally mandated changes in child support enforcement, must decide upon the timing of changes in state laws, the generosity of their child support guidelines, and the amount of state funding they are willing to provide to child support enforcement. These legislators must balance the preferences of families with an absent parent and of other citizens not directly involved in child support cases. The latter group, the majority of state residents, would appear to have two interests in child support. First, they underwrite state programs associated with child support enforcement and AFDC benefits, which are affected by the number of families with an absent parent. In addition, they may hold strong beliefs about what absent parents should pay in terms of child support and about the role of the state in enforcing such payments.

The generosity of states' AFDC policies and the rigor with which states pursue child support enforcement are likely to be jointly determined. States that choose to be more generous in their AFDC programs may find it is politically expedient to link AFDC benefits to more stringent child support enforcement policies. State residents may be more enthusiastic about increasing AFDC generosity if they believe that absent parents who can support their children are doing so. State residents may also believe that increased AFDC benefits, if enacted, would increase the rate of out-of-wedlock childbearing, all else held equal. Linking AFDC to child support enforcement may limit the extent to which increases in AFDC generosity distort childbearing behavior. The empirical link between AFDC generosity and child support enforcement is explored later in this chapter. In what follows, we model the impact of AFDC benefits and child support enforcement policies jointly.

The economic climate within a state may influence citizens' opinions on how much money should be spent on programs that affect children (AFDC and child support enforcement) and how that money should be divided between AFDC and child support enforcement. Those same economic conditions may also influence individuals' decisions on childbearing, as in equation (7.2). What would be helpful, if we hope to separate out the impact of child support enforcement legislation on individuals' behavior, would be to find some determinants of state policy that we believe do not systematically influence out-of-wedlock childbearing, except through the effect they have on policy. We could then use these variables as instruments for state policy. We propose, in what follows, to use the sex composition of the state legislature in just this way.

The Role of Female Legislators in Policy Determination

The presence of women in legislatures has a significant effect on state policy, according to recent studies conducted by the Center for the American Woman and Politics at Rutgers University. These studies demonstrated that "women were more likely to give priority to public policies related to their traditional roles as care givers in the family and society—e.g., policies dealing with children and families and health care" (Center for the American Woman and Politics 1991; see also Mills 1991). A case in point is provided by legislation in Florida, where the introduction of bills to expand child support guidelines was attributed in part to the election of a Democratic governor, in part to the Senate's first woman president, and in part to "women's advocates—from lobbyists to female legislators—[getting] together for the first time to hash out an agenda they could all agree on" (Marquez 1991, A18).

Sue Thomas (1994) reports the results of a recent survey she conducted of men and women in twelve state legislatures; she found significant differences in the legislative behavior of men and women. She notes: "Women and men were both interested in and introduced legislation on the full range of issues before the legislature. However, even allowing for wide-ranging interests by both sexes, we did find distinctive patterns. Women did give more time, energy, and effort to bills dealing with womens' and children's and family issues. This is reflected in the kinds of committees on which they sat, the chair positions they held, the types of accomplishments about which they displayed pride, as well as the bills they pursued" (75). Leadership on child support enforcement legislation in New Jersey, for example, was long provided by state Senator Wynona Lipman. Lipman sponsored child support enforcement legislation signed by Governors Brendan Byrne (1982) and Thomas Kean (1983), and cosponsored legislation passed by the New Jersey Senate in 1994 (Booth 1994).

The number of female legislators is a good instrument with which to measure the impact of child support enforcement legislation on out-of-wedlock childbearing. It is highly correlated with many enforcement procedures (see the discussion later in the chapter). At the same time, it does not appear that women are elected to strengthen child support enforcement procedures. A study of seven hundred women conducted by Sherrye Henry (1994) suggests that "when pollsters asked respondents if they would vote for a woman because she understands the problems other women face, 69% said no, the sex of a candidate made no difference" (48).

Timothy Besley and Anne Case (1997) model and discuss the conditions that must hold for the sex composition of the legislature to be useful as an instrument in incidence analysis. In general, this requires the election of women legislators to be uncorrelated with the unobservables that determine outcomes of interest (here, shocks to out-of-wedlock childbearing). This condition is met, for example, if women in politics affect policies through their work on party platforms, and if voting then takes place over parties' platforms (including child support issues), not over the sex of the candidate. The Henry study suggests that this condition does hold. We present over-identification tests, in our empirical work, of whether the number of women legislators belongs in the main (outcome) equations. These tests provide additional support for the Henry findings: women legislators appear to affect outcomes only through their impact on policies chosen.

In the empirical work presented later in the chapter, we model child support enforcement and AFDC benefits as a function of *W*, the economic and demographic variables that entered equation (2); state and year effects; and political variables, *P*, including the number of women legislators in both houses, those numbers squared, and the sizes of the state's lower and upper houses, and those numbers squared.

DATA

Out-of-wedlock birth rates are births to unmarried women relative to the total number of unwed women age fifteen to forty-four, expressed as a percentage. We examine the determinants of out-of-wedlock birth rates for the continental U.S. states by year from 1978 to 1991, the years in which many changes in state policies and programs were adopted. These data, drawn from the *Vital Statistics* bulletins, are summarized in table 7.1. Out-of-wedlock birth rates vary greatly between states, with the lowest rates found in New England (Vermont, New Hampshire, and Massachusetts) and the highest rates in the South (Louisiana, Georgia, and Mississippi). These rates increased substantially during the period studied here, rising nationally from 3.0 in 1978 to 6.4 in 1991. There is a lot of variation between states in the rate of growth: Mississippi had less than a 2 percent average annual growth rate in out-of-wedlock childbearing, and North Dakota and Delaware had greater than 10 percent average annual growth rates. Growth in the out-of-wedlock birth rates calculated for Delaware is due to a large decline in the reported number of unmarried women age fifteen to forty-four in the last two years in the sample period. All results reported here have been reestimated omitting observations for Delaware in 1990 and 1991. Results do not change in any meaningful way.

States with the lowest out-of-wedlock birth rates in 1978 tended to have the highest growth rates in nonmarital fertility. (See, for example, New Hampshire, North Dakota, Iowa, and Rhode Island.) The empirical analysis below controls for state fixed effects, which absorb differences between states in their mean levels of nonmarital parenthood. Our analysis thus focuses on deviations in states' nonmarital birth rates from state means and explores the extent to which these can be explained by changes in states' policies during this period.

Out-of-wedlock birth rates take as their denominator the number of unwed women age fifteen to forty-four. Changes in child support enforcement policies and

TABLE 7.1 / Out-of-Wedlock Birth Rates

State	Out-of-Wedlock Birth Rate 1978	State	Growth in Out-of-Wedlock Birth Rate 1978 to 1991
VT	1.41	MS	.019
NH	1.55	AL	.020
MA	1.56	GA	.026
ND	1.56	SC	.027
IA	1.80	TX	.027
RI	1.86	LA	.029
WA	1.88	NJ	.032
CT	2.02	MD	.033
UT	2.04	IL	.036
WI	2.05	WY	.037
CO	2.19	VA	.038
ME	2.29	MI	.038
NV	2.34	AR	.038
ID	2.37	KY	.039
PA	2.39	FL	.041
WY	2.46	OK	.042
KS	2.53	MO	.044
WV	2.58	OH	.044
NM	2.62	NC	.044
MT	2.63	NY	.046
NJ	2.75	ID	.046
OR	2.76	SD	.046
IN	2.82	UT	.047
SD	2.84	TN	.048
VA	2.86	IN	.049
NY	3.02	VT	.050
MI	3.06	KS	.050
KY	3.12	CA	.050
DE	3.18	ME	.051
OK	3.30	OR	.054
MD	3.30	PA	.055
MO	3.31	CT	.056
OH	3.36	CO	.056
NC	3.39	AZ	.057
TX	3.39	WI	.058
AZ	3.60	MT	.058
IL	3.63	WA	.062
TN	3.69	MA	.064
FL	3.87	RI	.065

(Table continues on p. 198.)

TABLE 7.1 / *Continued*

State	Out-of-Wedlock Birth Rate 1978	State	Growth in Out-of-Wedlock Birth Rate 1978 to 1991
CA	3.93	WV	.069
SC	4.32	IA	.069
AR	4.47	NH	.072
AL	4.55	NV	.076
LA	5.04	NM	.077
GA	5.30	ND	.109
MS	6.00	DE	.152

Notes: Out of wedlock birth rates are births relative to the number of unmarried women in the state, age fifteen to forty-four, expressed as a percentage. The growth rates are state average growth rates for the period 1978 to 1991.

AFDC benefits may influence decisions to marry—as well as decisions to bear children out of wedlock—and the change in out-of-wedlock childbearing we estimate may be working through both behavioral responses. In auxiliary regressions (not shown), we regressed the number of unwed women age fifteen to forty-four on the same child support enforcement policies and AFDC benefit variables studied here, together with state economic and demographic variables and state and year indicators. We found no significant effects of CSE policies or AFDC benefits on the number of unwed women, in either ordinary least squares (OLS) or two-stage least squares (TSLS) specifications. We take this as some evidence that the policies appear to work primarily through their impact on out-of-wedlock births.

We investigate the effect of five CSE programs, with an eye toward those programs thought to be influential in the decisions made by young men. These include indicators that the state uses genetic testing to establish paternity, that the state has long-arm statutes to pursue men in other states, that paternity may be established to age eighteen, that withholding becomes mandatory when payments are in arrears,[5] and that the state has adopted presumptive child support guidelines. These data are summarized in table 7.2, which provides information on the year in which states established each policy. There is great variation between states in the timing of adoption of these measures. For example, sixteen states had adopted long-arm statutes before 1980, while by 1992 twenty states had not yet adopted such statutes. By 1986 most states had passed legislation to allow establishment of paternity to age eighteen. However, nine states (Arizona, Arkansas, Florida, Georgia, Missouri, North Carolina, South Carolina, Utah, and Virginia) had not passed such legislation by 1992. Table 7.2 also presents a measure of state AFDC benefits. The last column of the table presents the states' maximum monthly AFDC benefit in 1983 for a family of four (measured in 1982 prices). The variation between states is substantial, with lower benefits observed in the South ($115 per month in

TABLE 7.2 / Adoption of Child Support Policies

State	Genetic Testing to Establish Paternity	Long-arm Statutes	Paternity Established to Age Eighteen	Mandatory Withholding	Child Support Guidelines Are Presumptive	Maximum Real AFDC Benefits 1983[a]
AL	1986	—	1985	1982	—	141.21
AZ	1987	—	—	1979	1988	270.89
AR	1987	1985	—	1979	—	157.54
CA	1988	1976	1985	1980	1986	600.38
CO	1987	1979	1985	1981	1986	371.76
CT	1986	—	1985	1976	—	511.05
DE	1986	—	1985	1976	1988	299.71
FL	1987	1988	—	1978	1989	252.64
GA	1987	1980	—	1985	1989	228.63
ID	1987	1988	1986	1986	1989	330.45
IL	1987	1988	1985	1982	1985	353.51
IN	1987	—	1986	1982	—	303.55
IA	1987	1984	1985	1985	1989	402.50
KS	1986	1976	1985	1978	1986	369.84
KY	1984	1980	1986	1985	1990	225.74
LA	1987	—	1985	1982	1989	224.78
ME	1986	1977	1986	1968	1990	413.06
MD	1984	1980	1986	1976	—	341.02
MA	1987	—	1986	1983	—	427.47
MI	1984	—	1986	1980	—	449.57
MN	1987	1978	1985	1987	1986	560.04

(*Table continues on p. 200.*)

TABLE 7.2 / *Continued*

State	Genetic Testing to Establish Paternity	Long-arm Statutes	Paternity Established to Age Eighteen	Mandatory Withholding	Child Support Guidelines Are Presumptive	Maximum Real AFDC Benefits 1983[a]
MS	1987	—	1985	1985	1989	115.27
MO	1988	—	—	1976	—	292.99
MT	1987	1977	1986	1980	1989	408.26
NB	1984	—	1986	1976	1988	403.46
NV	1985	1979	1985	1977	1987	261.29
NH	1976	—	1985	1976	1988	393.85
NJ	1987	—	1985	1982	1988	397.69
NM	1986	—	1985	1979	1988	269.93
NY	1987	1986	1986	1977	1989	494.72
NC	1986	1979	—	1986	1989	212.30
ND	1987	1976	1985	1979	1989	419.79
OH	1987	—	1985	1986	1988	314.12
OK	1987	—	1986	1986	1988	335.25
OR	1987	1979	1985	1976	1989	415.95
PA	1982	—	1986	1986	—	385.21
RI	1987	1979	1985	1980	1987	404.42
SC	1976	1985	—	1985	—	167.15
SD	—	1978	1985	1981	1986	346.78
TN	1987	—	1984	1983	1989	147.93
TX	1988	1976	1985	1985	1989	135.45
UT	1987	1986	—	1977	1989	385.21
VT	1987	—	1985	1977	1986	545.63WA
1987	1976	1985	1985	1988	522.57	
WV	1986	—	1986	1986	1986	239.19
WI	1981	1979	1986	1977	1986	576.37
WY	1981	1978	1985	1986	1989	374.64

Notes: Observations are marked "1976" for states that adopted the policy in or before 1976. Observations marked "—" are for states that had not adopted a given policy by 1992.

[a] Maximum AFDC benefits for a family of four, in 1982 dollars.

Mississippi, $141 per month in Alabama) and higher benefits in New England ($511 in Connecticut, $546 in Vermont).

There is a strong empirical link between AFDC generosity and child support enforcement. Correlations between maximum state AFDC benefits for a family of four in 1983 and the years in which different child support enforcement policies were adopted are negative and substantial. Correlations between AFDC and long-arm statutes (−0.22), paternity establishment to age eighteen (−0.35), mandatory withholding of payments in arrears (−0.37), and presumptive guidelines (−0.24) demonstrate that states with higher AFDC benefits were the early adopters of child support enforcement policies.

The passage of legislation does not guarantee enforcement of child support policies within any given state. If we had reliable information on the determination with which policies were enforced, by state and year, we would include this in our analysis as well. Both sets of measures (laws and their enforcement) would be interesting to examine. Some potential fathers may change their behavior as the laws change, knowing that the laws may in the future be enforced. Some potential fathers may be more heavily influenced by the enforcement they observe. As we discuss later in the chapter, we find that the passage of child support policies appears to affect the behavior of potential fathers within a couple of years. This may be an underestimate of the ultimate impact of legislation, if states are slow in bringing their enforcement into line with the law and potential fathers are more heavily influenced by states' enforcement policies than by laws.

We explore the timing of changes in policy using data on recent state economic conditions, demographic makeup, and political climate. The economic and demographic variables that we analyze include state income per capita, state population, the employment-to-population ratio, the proportion of the state population that is elderly, and the proportion that is black. These data are drawn from the *Statistical Abstract of the United States.*

Political variables, which help to identify the timing of law changes, include the total number of legislators in both houses, and those numbers squared. These data are drawn from *The Book of the States* (Council on State Governments, various years). In addition, we use the number of women in each chamber of the state legislature, and these numbers squared, to explain the timing of policy changes. These data are drawn from *Women in State Legislatures: Fact Sheets* (Center for the American Woman and Politics, various years).

Summary measures of these variables are provided in table 7.3. There is substantial variation between states and within states over time in many of these variables. During this period, the number of women in state assemblies and senates grew dramatically, as can be seen in figures 7.1 and 7.2. With controls for state and year effects, it is the variation within states over time that identifies the effect of economic and political conditions on state policies and the effect of the economic and policy variables on out-of-wedlock childbearing. The year effects absorb phenomena that are common to all states at a point in time, and the state effects absorb state-specific forces that are unchanging over time.

TABLE 7.3 / Summary Statistics of the Economic, Demographic, and Political Variables Used in the Analysis

	Mean	Standard Deviation	Minimum	Maximum
State income per capita[a] 1977 to 1990	11,496	1,927	7,705	19,002
Fraction employed[b] 1977 to 1990	.400	.045	.297	.547
State population (millions) 1977 to 1990	4.92	5.05	.406	29.8
Proportion elderly 1977 to 1990	.117	.019	.075	.188
Proportion black 1977 to 1990	.115	.090	.002	.368
Number of women, state upper house 1977 to 1990[c]	3.43	2.62	0	12
Number of members, state upper house 1977 to 1990	40.5	10.2	20	67
Number of women, state lower house 1977 to 1990	16.8	17.7	1	133
Number of members, state lower house 1977 to 1990	113.5	55.6	40	400
Out-of-wedlock birth rate[d] 1978 to 1991	4.25	1.96	1.41	35.1

Notes: Number of observations = 672. Observations are for all forty-eight continental U.S. states for fourteen years. Years reported vary between explanatory variables and out-of-wedlock birth rates, reflecting the fact that lags of explanatory variables are used in the analysis.

[a] State income is in per-person, constant 1982 dollars.

[b] Fraction employed is the employment-to-population ratio.

[c] Nebraska has a unicameral legislature and is assigned this number of legislators to both variables for the lower house and the upper house.

[d] The out-of-wedlock birth rate is the number of births to unmarried women divided by the number of unmarried women age fifteen to forty-four, expressed as a percentage. The highest rates are recorded in Delaware for the years 1989, 1990, and 1991. I have reestimated the results presented here without these three observations (in case they are outliers caused by measurement error). None of the results change in any meaningful way.

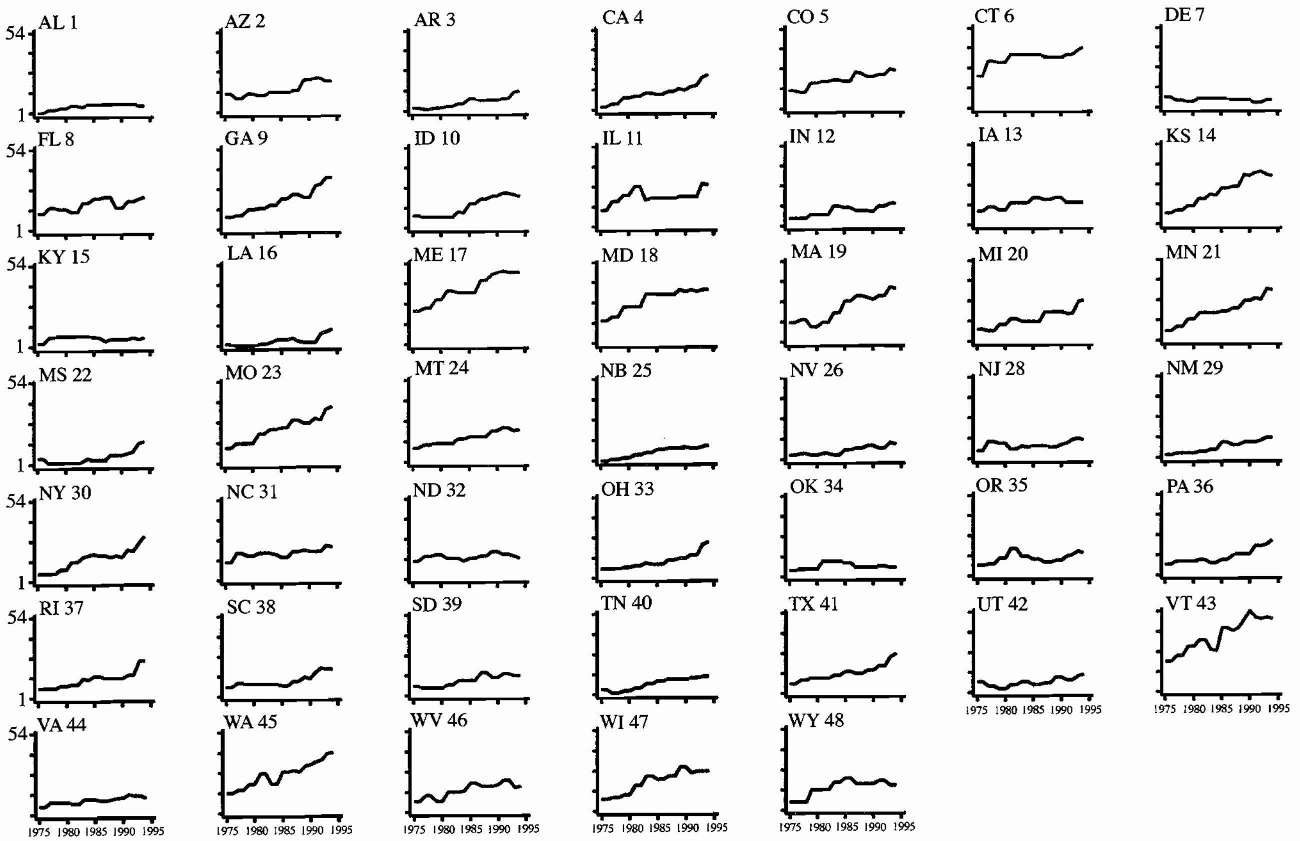
ESTIMATION RESULTS

The Determinants of Child Support Policies

The impacts of state economic, demographic, and political conditions on state AFDC benefits and child support policies are examined in table 7.4. We regress AFDC benefits and each of five child support enforcement policies—genetic testing, paternity establishment to age eighteen, long-arm statutes, presumptive guidelines, and mandatory withholding—on the number of women in the state upper house, that number squared, the number of women in the state lower house, that number squared, the number of legislators in each house, and those numbers

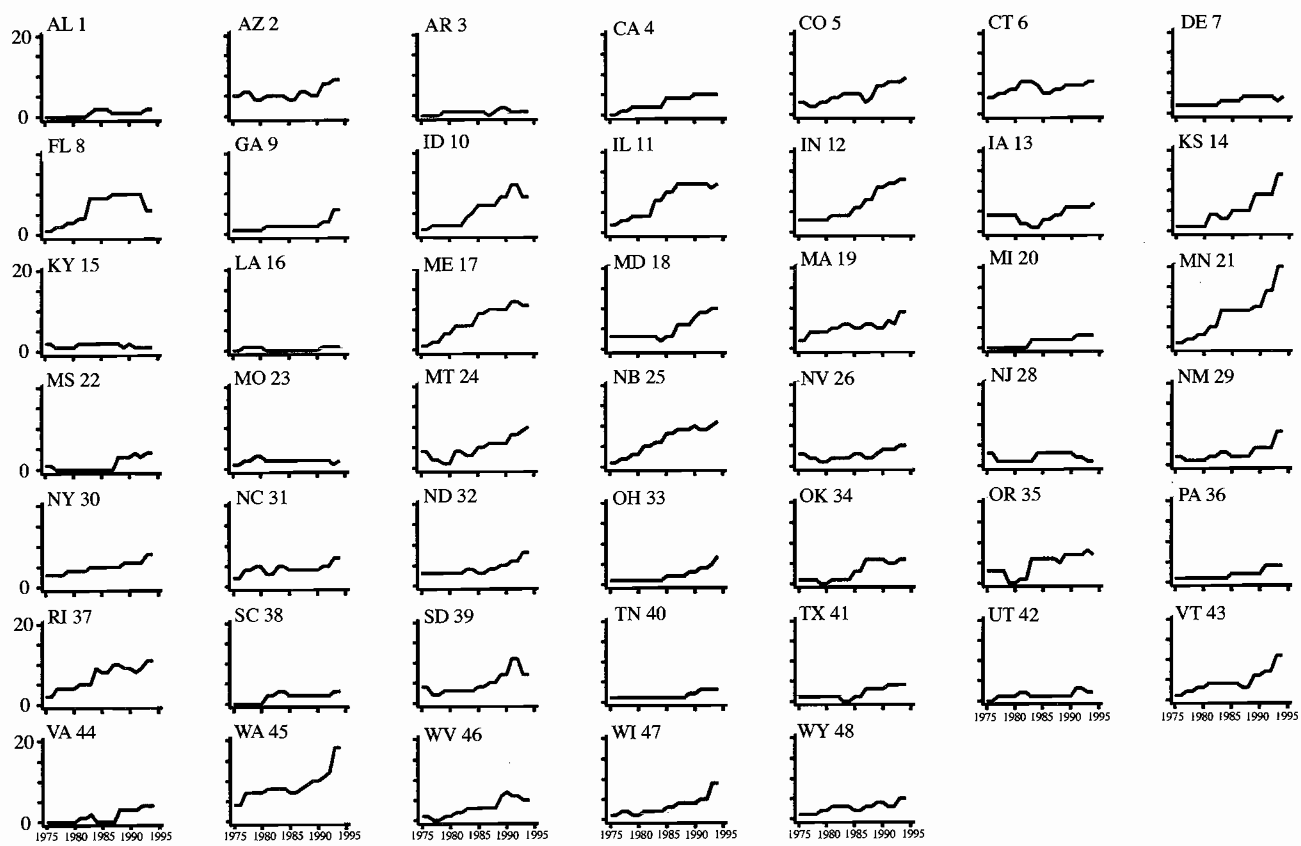
(Text continues on page 208.)

FIGURE 7.1 / Women Serving in State Lower Houses, 1975 to 1995



Notes: New Hampshire (27) not shown. Each graph shows the number of women serving in a state's lower house each year.

FIGURE 7.2 / Women Serving in State Upper Houses, 1975 to 1995



Notes: New Hampshire (27) not shown. Each graph shows the number of women serving in a state's upper house each year.

TABLE 7.4 / Determinants of States' Child Support Policies (Standard Errors in Parentheses)

Explanatory Variables	Paternity Established to Age Eighteen	Paternity Long-arm Statutes	Genetic Testing	Mandatory Withholding	Presumptive Guidelines	Maximum AFDC Benefits
Number of women in upper house	.0306	−.0489	−.0081	.0339	.0253	1.983
	(.0143)	(.0213)	(.0136)	(.0213)	(.0178)	(2.980)
Number of women in upper house (squared)	.0002	.0034	.0010	−.0049	−.0007	−.2276
	(.0013)	(.0019)	(.0011)	(.0018)	(.0020)	(.2524)
F-test: women in upper house and upper house (squared)[a]	10.72	2.94	0.54	5.50	3.22	0.52
	(.0000)	(.0536)	(.5857)	(.0040)	(.0405)	(.5971)
Number of women in lower house	.0020	.0023	.0078	.0039	.0032	.9315
	(.0033)	(.0043)	(.0037)	(.0051)	(.0037)	(.6289)
Number of women in lower house (squared)	.0001	−.0001	−.0001	−.0001	.00002	−.0102
	(.00002)	(.00003)	(.0000)	(.00003)	(.00003)	(.0043)
F-test: women in lower house and lower house (squared)	9.91	10.56	5.74	11.32	0.61	2.88
	(.0001)	(.0000)	(.0034)	(.0000)	(.5463)	(.0566)
Number of legislators in upper house	−.1904	.1959	.1315	.3115	.0565	30.02
	(.0844)	(.1266)	(.0784)	(.1536)	(.0997)	(13.66)
Number of legislators in upper house (squared)	.0022	−.0018	−.0017	−.0029	−.0006	−.4989
	(.0010)	(.0015)	(.0009)	(.0019)	(.0011)	(.1564)
Number of legislators in lower house	.0069	−.0158	.0029	−.0327	−.0319	1.216
	(.0062)	(.0101)	(.0059)	(.0104)	(.0124)	(1.254)
Number of legislators in lower house (squared)	−.00002	.00004	−.00001	.0001	.0001	−.0028
	(.00002)	(.00002)	(.00002)	(.0003)	(.00003)	(.0037)
F-test: all legislative variables[b]	6.26	7.26	2.42	7.13	3.26	6.12
	(.0000)	(.0000)	(.0139)	(.0000)	(.0012)	(.0000)
State income per capita	.042	−.012	.003	−.049	−.0188	.493
	(.015)	(.023)	(.017)	(.027)	(.0296)	(3.39)
Employment/population	−4.52	1.45	−.191	.322	.6599	309.0
	(.725)	(.934)	(.875)	(1.16)	(1.195)	(142.5)
State population	−.047	−.024	−.021	.055	.0054	20.18
	(.025)	(.023)	(.022)	(.024)	(.0206)	(2.57)
Proportion elderly	7.65	−5.75	4.16	5.30	−3.856	−1726
	(2.94)	(3.86)	(3.20)	(4.08)	(3.122)	(433)
Proportion black	1.88	1.38	.609	1.78	−5.599	76.2
	(.938)	(.746)	(1.05)	(1.06)	(1.029)	(142.5)
F-test: economic variables[c]	11.59	2.61	1.19	2.03	7.61	32.27
	(.0000)	(.0236)	(.3114)	(.0728)	(.0000)	(.0000)
R^2	.8056	.7650	.8099	.6715	.6646	.9496

Sources: Dependent variable data sources columns 1 through 5: National Conference of State Legislatures, as reported in Garfinkel et al. 1995. Data provided by Sara McLanahan and Cynthia Miller. Explanatory variables data sources: Economic and demographic variables are from the *Statistical Abstract of the United States* (various years). Political variables are drawn from Council on State Governments, *The Book of the States* (various years) and *Center for the American Woman and Politics, The Impact of Women in Public Office: Findings at a Glance* (1991), and *Women in State Legislatures: Fact Sheets,* (various years).

Notes: OLS regressions with robust standard errors reported in parentheses. All regressions include state and year indicators. Observations available for continental U.S. states from 1975 to 1989 for real maximum AFDC benefits (column 6) and from 1976 to 1990 for all other dependent variables. Number of observations in each regression is 720 (48 state observations over 15 years).

[a] *F*-test of the joint significance of the number of women in the upper house, and that number squared. *P*-values provided in parentheses for all *F*-tests.

[b] *F*-test of the joint significance of the number of women in the upper house, that number squared, number of women in the lower house, that number squared, total number of legislators in state upper house, that number squared, and total number of legislators in state lower house, and that number squared. *P*-value provided in parentheses.

[c] *F*-test of the joint significance of state income per capita, fraction employed, state population, proportion elderly, and proportion black.

squared. We include in these regressions state income per capita, employment-to-population ratios, state population, the proportion of the state that is elderly (sixty-five or older), and the proportion that is black. State indicator variables and year indicator variables are also included in each regression (but are not reported in the table). For each regression, robust standard errors are estimated, allowing for an unspecified form of heteroskedasticity.

The legislative variables are significant determinants of state policies. Beginning with column 1, the number of women in a state's upper house has a large and significant effect on the probability that the state will adopt legislation to establish paternity to age eighteen. All else equal, a one-standard-deviation increase in the number of seats held by women in the state upper house (2.62 seats) is associated with a nine-percentage-point increase in the probability that the state will have in place legislation to establish paternity to age eighteen ($0.0306 \times 2.62 + 0.0002 \times (6.05^2 - 3.43^2)$), measured at the mean of the number of seats held by women (3.43 seats). An *F*-test of the joint significance of the number of women in the upper house and that number squared is provided under the estimates ($F = 10.72$) and suggests that the effect of the number of women in state upper houses is highly significant. The number of women in state lower houses also has a large and significant effect on the probability of legislation to establish paternity to age eighteen. All else equal, a one-standard-deviation increase in the number of seats held by women in the lower house (17.7 seats) is associated with a thirteen-percentage-point increase in the probability of legislation, measured at the mean number of seats held by women in the lower house (16.8 seats). These variables are also highly significant ($F = 9.91$). The number of women in the state upper house also has a positive and significant effect on the probability that the state will have passed legislation making support guidelines presumptive. All else equal, a one-standard-deviation increase in the number of women serving in the state upper house is associated with a 5 percent increase in the probability of presumptive guidelines, measured at the mean number of women serving in the state upper house. The number of women in the state lower house also has a positive and significant effect on the probability that the state will allow genetic testing to establish paternity. All else held equal, a one-standard-deviation increase in the number of seats held by women in the lower house (17.7 seats) is associated with a five-percentage-point increase in the probability that the state will have passed genetic testing legislation, measured at the mean number of women legislators during this period (16.8 seats). A one-standard-deviation increase in the number of women seated in the lower house (17.7 seats), all else equal, is also estimated to increase maximum AFDC benefits by roughly $7 per month, measured at the mean of the number of women legislators during this period (16.8 seats). This is 2 percent of the mean of maximum AFDC benefits received over this period ($368 per month).

The legislative environment is also determined by the number of legislators seated at any particular time. The ability to strike bargains may depend on the quality of negotiations between parties, which may depend in turn upon the number of legislators seated. For this reason, we also include the number of legislators in each house, and those numbers squared. The joint impact of the number of women and the number of legislators can be seen in the *F*-tests for the set of legislative variables (row 11). For each policy examined here, the legislative variables are jointly highly significant. Many specifications of the impact of women legislators were explored, and the results presented here are robust to functional form.

Recent economic and demographic changes within the state are also significant determinants of policy (F-statistics, row 17). The proportion of the state population that is elderly has a negative and significant effect on maximum AFDC payments, a finding that is complementary to those of James Poterba (1997), who finds evidence of intergenerational competition in public-sector resource allocation. The proportion of the state that is black has a positive and significant effect on the speed with which states adopt certain peices of legislation. Specifically, the proportion of the state population that is black is associated with faster adoption of genetic testing, paternity establishment to age eighteen, long-arm statutes, and mandatory withholding for nonresident parents in arrears. Larger states are significantly less likely to have passed legislation on paternity establishment to age eighteen and significantly more likely to have mandatory withholding. Together, the economic and demographic variables are significant determinants of AFDC benefits, paternity establishment to age eighteen, long-arm statutes, presumptive guidelines, and mandatory withholding. Given that we think all five of the economic and demographic variables examined here may have independent effects on out-of-wedlock childbearing, it is important to try to separate out their effects.

The Impact of Child Support Policies on Out-of-Wedlock Childbearing

We present estimates of the impact of child support enforcement policies on nonmarital fertility in table 7.5. We estimate the impact of policy measures on out-of-wedlock childbearing policy by policy. For each, we model out-of-wedlock childbearing in a given year as a function of a particular child support enforcement policy in place two years before that, of the demographic and economic variables discussed earlier (state income per capita, state population, the employment-to-population ratio, the proportion of the population that is black or elderly) and of state and year effects. We use one-year lags in the economic and demographic variables to reflect the time lag between conception and birth. Our interest is primarily in the impact of economic conditions in place at the time of conception. The two-year lag for child support enforcement policies was chosen to reflect the time it may take for information to reach young men making contraception decisions.

For each policy, we present two sets of estimates. The first set (columns 1 through 5) is based on an ordinary least squares (OLS) regression. The OLS estimates treat the child support policies and AFDC benefits as exogenous variables. The second set (columns 6 through 10) is based on two-stage least squares (TSLS) estimation of the effect of the policy on out-of-wedlock childbearing. Here, the policy variables have been instrumented using the set of legislative variables presented in table 7.4 (the number of women in each house, that number squared, the number of legislators in each house, and those numbers squared).

TABLE 7.5 / The Impact of Child Support Policies on Out-of-Wedlock Childbearing

Explanatory Variables	OLS: Child Support Enforcement Policies and AFDC Taken as Exogenous					TSLS[a]: Child Support Enforcement Policies and AFDC Instrumented on Gender Composition and Size of Legislature				
Genetic testing to establish paternity$_{t-2}$	.083	—	—	—	—	–1.70	—	—	—	—
	(.100)					(1.19)				
Paternity establishment to age eighteen$_{t-2}$	—	.376	—	—	—	—	–2.10	—	—	—
		(.170)					(1.11)			
Long-arm statutes$_{t-2}$	—	—	–.397	—	—	—	—	–.092	—	—
			(.183)					(.690)		
Presumptive guidelines$_{t-2}$	—	—	—	.625	—	—	—	—	–1.47	—
				(.385)					(.740)	
Mandatory withholding$_{t-2}$	—	—	—	—	–.480	—	—	—	—	.002
					(.249)					(.451)
Maximum AFDC benefits$_{t-2}$	.003	.003	.003	.003	.003	–.002	–.012	–.006	–.006	–.006
	(.001)	(.001)	(.001)	(.001)	(.002)	(.004)	(.006)	(.003)	(.004)	(.003)
State income per capita$_{t-1}$ (thousands of dollars)	–.402	–.422	–.412	–.397	–.437	–.403	–.250	–.374	–.386	–.371
	(.172)	(.179)	(.175)	(.168)	(.186)	(.187)	(.150)	(.180)	(.182)	(.165)
Fraction employed$_{t-1}$	22.4	23.8	22.7	21.9	22.6	21.3	13.4	21.7	22.6	21.6
	(8.49)	(9.00)	(8.58)	(8.17)	(8.46)	(8.34)	(7.38)	(8.83)	(9.24)	(8.41)
State population$_{t-1}$	.162	.176	.152	.156	.185	.220	.320	.336	.337	.340
	(.103)	(.107)	(.101)	(.102)	(.112)	(.119)	(.182)	(.141)	(.164)	(.165)
Proportion elderly$_{t-1}$	49.0	49.0	49.1	54.5	54.5	54.5	29.8	33.0	22.7	33.0
	(30.6)	(30.1)	(30.0)	(32.5)	(32.3)	(40.7)	(28.4)	(27.1)	(25.5)	(27.0)
Proportion black$_{t-1}$	2.23	1.96	2.94	5.34	3.42	5.52	7.17	4.42	–2.90	4.29
	(9.40)	(9.22)	(9.56)	(11.0)	(9.79)	(11.0)	(11.3)	(10.7)	(8.51)	(9.95)
F-test: Economic variables[b]	6.34	6.40	6.26	5.41	6.45	3.60	1.25	5.95	4.40	5.70
(*p*-value)	(.0000)	(.0000)	(.0000)	(.0001)	(.0000)	(.0033)	(.2854)	(.0000)	(.0006)	(.0000)
Over-id test for	—	—	—	—	—	9.21	6.51	11.3	7.97	11.30
instruments[c] (*p*-value)						(.1619)	(.3681)	(.0784)	(.2401)	(.0793)

Notes: All regressions include state indicator variables and year indicator variables. Observations are for each of the continental U.S. states for the period 1976 to 1989 (number of observations = 672). For information on variable definitions and sources, see notes to table 7.4. Dependent variable: out-of-wedlock births/unmarried women age fifteen to forty-four (expressed as a percent).

[a] In columns 6 through 10, one child support enforcement variable and state maximum AFDC for a family of four are instrumented on the number of women in the upper house, that number squared, number of women in the lower house, that number squared, total number of legislators in state upper house, that number squared, and total number of legislators in state lower house, and that number squared.

[b] *F*-test of the joint significance of state income per capita, employment/population, state population, proportion elderly, and proportion black (all lagged one period).

[c] Chi-square test statistic of the validity of excluding the legislative instruments from the main regression (degrees of freedom = 6).

Economic Influences

Before turning to the effect of the child support policies, we will briefly discuss the economic and demographic variables thought to affect out-of-wedlock childbearing. As discussed earlier (see equation [7.2]), we might expect state economic and demographic variables to affect nonmarital fertility, if only because they affect the well-being of potential parents in the state of the world in which they become parents relative to their well-being if they choose not to become parents. Increases in state income per capita, holding all else constant, are negatively and significantly correlated with the out-of-wedlock birth rates in the following year. This is true in both the OLS regressions and those in which child support enforcement policies are instrumented. We control for state-level fixed effects in each of these regressions, so that this is due to differences within states over time, not to differences between wealthier states and poorer states. The proportion of the population that is elderly is positively and significantly correlated with the out-of-wedlock birth rates in the next period in the OLS regressions. However, this variable becomes insignificant when we instrument for child support enforcement policies using the political variables discussed earlier. This is the result we would expect if child support enforcement policies were endogenous and the proportion of elderly were a determinant of such enforcement. In such a case, the simultaneity bias resulting from treating child support enforcement as a control variable would lead to significance in a variable correlated with the true effect of child support enforcement—in this case, the proportion of elderly.

F-tests of the joint significance of the economic and demographic variables (presented in the second-to-last row of the table) suggest that the economic variables are significant determinants of out-of-wedlock childbearing. The difference in the joint significance of these variables between the OLS and TSLS regressions is again of interest because it highlights the endogeneity of the policy variables.

We focus on the TSLS estimates because of the potential joint endogeneity of child support enforcement policies. We find significant effects for three child support policies in our TSLS estimation: genetic testing to establish paternity, paternity establishment to age eighteen, and presumptive guidelines. Genetic testing to establish paternity, which appeared to have a positive and insignificant effect on childbearing in the OLS estimation, has a negative and significant effect when instrumented on the legislative variables. Holding all else constant, the passage of genetic testing legislation is associated with a reduction in out-of-wedlock childbearing (two years later) of 1.7 percentage points. Paternity establishment to age eighteen appears to be positively and significantly correlated with out-of-wedlock childbearing when estimated by OLS (column 2). This perverse result appears also for presumptive guidelines (column 4). However, both of these results change when child support enforcement policies are instrumented on legislative variables. The TSLS estimates have purged that part of the correlation between out-of-wedlock childbearing and the endogenous policies that led to the positive and significant OLS result. Holding all else constant, the passage of paternity establishment to age eighteen is associated with a 2-percentage-point reduction in the rate of out-of-wedlock childbearing. Holding all else constant, the passage of presumptive guidelines is associated with a 1.5-percentage-point reduction in the rate of out-of-wedlock childbearing.

AFDC benefits appear to have a positive and significant effect on nonmarital fertility when OLS estimation is performed. However, instrumentation suggests that this result is due to the joint endogeneity of AFDC benefit generosity and out-of-wedlock childbearing. In TSLS estimation, the AFDC benefits have a negative and insignificant effect on out-of-wedlock childbearing.

Over-Identification Tests

One caveat to the use of political variables as instruments for child support enforcement policies is that these variables may directly determine out-of-wedlock childbearing. For example, women legislators may have been elected in response to a rise in out-of-wedlock birth rates, or women legislators may affect the adoption of other policies, not modeled here, that have a direct effect on nonmarital fertility. We perform over-identification tests to see whether women legislators should be included in the main regression, as direct determinants of out-of-wedlock childbearing. We present the results of these over-identification tests in the last row of table 7.5. For policies found to have significant effects on out-of-wedlock childbearing—genetic testing, paternity establishment to age eighteen, and presumptive guidelines—we pass the over-identification tests easily. Instrumenting only for AFDC benefits and long-arm statutes (column 8) or for AFDC benefits and mandatory withholding (column 10), we do not pass the over-identification tests. These result can be explained by the fact that the instruments affect genetic testing, paternity establishment to age eighteen, and presumptive guidelines, and these are shown here to affect nonmarital fertility.

CONCLUSIONS

We draw three conclusions from our results. First, we find that women legislators play a role in setting a state's policy agenda. Although women were never in the majority in either a state assembly or state senate during the years under examination here, they appear to speed adoption of child support enforcement policies significantly. More generally, the generosity and timing of a state's child support enforcement programs respond to the economic, demographic, and political conditions present in that state.

Second, omitted variables that are correlated with the rate of out-of-wedlock childbearing within the state also appear to play a role in state policy. It is necessary, therefore, to control for the potential endogeneity of state policy when estimating its effect. We find that estimates of policy impact change dramatically when we control for potential policy endogeneity.

Finally, some state policies—such as paternity establishment to age eighteen, genetic testing to establish paternity, and presumptive guidelines—may act to limit nonmarital fertility significantly. Better instruments would be welcome, as they may lead to more precise estimates of policy impact, an observation that suggests an avenue for future work.

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NOTES

1. For discussion of the history of child support legislation, see Garfinkel, McLanahan, and Robins (1994).
2. "Presumptive guidelines are a standard method for setting child support orders based on the income of the parent(s) and other factors. Child support orders set according to the guidelines are presumed to be correct. Judges and others must use the state guidelines or demonstrate that the application of the guidelines would be unjust or inappropriate in a particular case" (GAO 1994, 63; see also Erickson 1993).
3. The potential endogeneity of child support enforcement programs is mentioned by Sonenstein, Pleck, and Ku (1994). Noting that "stronger programs may also signal and reinforce shared community expectations that non-marital childbearing should be discouraged" (5), they add to their analysis information available on the "ethic of good citizenship" within counties—the proportion of registered voters voting in the last election in the county and the county's crime rate. It is not clear how well these variables capture the county's attitude toward out-of-wedlock childbearing.
4. We are not assuming that this is the only force at work in men's decisions on contraception, or even the most important. But in any framework within which unmarried men are making contraceptive decisions, an increase in the cost of child support would be a force compelling men to follow a more conservative strategy.
5. These variables are drawn from Garfinkel et al. (1995) and were provided by Sara McLanahan and Cynthia Miller.

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