Joint Custody: Bonding and Monitoring Theories

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INTRODUCTION

Like everything else in divorce, custody often seems a zero-sum game in which one spouse wins and the other loses. Time enjoyed with children, which used to be shared, must now be divided. Traditionally, the division was a very sharp one, with one parent awarded sole custody and the other restricted to circumscribed visitation rights. More recently, however, joint-custody awards have become more common. Under joint custody, parents share access to children and childrearing responsibilities.

Proponents of joint custody argue that it eases the pain of divorce for children. For the child, sole custody may seem like the death of the noncustodial parent, and in many respects it is just that. The child will lose his guidance and emotional support, and not infrequently his financial support as well. Joint custody, though by no means as beneficial for the child as a continued marriage, eases these burdens, and better prepares the child for life as an adult.

This Article discusses two possible benefits of joint custody. Under bonding theories, fathers permit themselves to grow more attached to children when they do not fear a complete break with them on divorce. With the increased emotional ties, divorce becomes less likely. This greatly benefits children, as divorce is one of the greatest tragedies which can befall them.

Under monitoring theories, joint custody addresses an agency-cost problem that arises under sole custody. The noncustodial parent cannot easily see how his financial contributions are spent, and therefore assumes the risk that some moneys will be misspent. With joint custody, by contrast, the parent can monitor for such problems through his increased access and responsibility.¹

We tested bonding and monitoring theories of joint custody through regression analysis. We first regressed divorce levels on joint custody and socioeconomic predictors, and found that joint-custody laws are significantly correlated with lower divorce rates, as predicted by bonding theories. We then regressed child-support-payment ratios on legal and socioeconomic predictors, and found that joint-custody laws are significantly correlated with higher child-support ratios, as predicted by monitoring theories. These results are robust under various estimation techniques and different independent variables.

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^{1.} In our choice of pronouns, we refer to the noncustodial parent as a man and the custodial parent as a woman.

We do not suggest that our findings are dispositive. More research is needed on the relation between joint-custody laws, child support, and divorce. In addition, the reduction in divorce levels may not be benign if wives stay in abusive relationships lest they lose partial custody of their children under joint custody. This too suggests an agenda for further empirical research.

Part I of the Article describes the evolution of custody law, and the recent move to joint custody. Part II discusses criticisms of joint custody, and Part III offers a bonding and monitoring defense of it. Our empirical tests are described in Part IV, and we conclude in Part V.

I. THE LAW OF JOINT CUSTODY

On divorce, child custody has traditionally been granted to one parent only.² Who that parent might be changed over time. Before the nineteenth century, custody was usually awarded to the father, even when he had committed the marital fault.³ This changed in nineteenth-century America, and courts began to award custody to the mother when the father was at fault, on the theory that the children would be "best taken care of and instructed by the innocent party." In most cases, this meant that custody was awarded to mothers. No-fault divorces were not then available, and divorcing fathers usually admitted fault to procure the divorce.

In this century, custody was awarded to mothers for a further reason, as the focus shifted from parental fault to the interests of the child. A "child of tender years" would need a mother more than a father. When the child was very young, therefore, mothers were usually granted custody, to permit the child to receive "such care, love, and discipline as only a good and devoted mother can . . . give." In time, divorce laws were amended to provide that custody should turn on "the best interests of the child."

^{2.} See PRINCIPLES OF THE LAW OF FAMILY DISSOLUTION § 2.09 reporter's notes to cmt. f, at 153 (Preliminary Draft No. 6, 1996). For example, "where one parent is awarded general custody, the ordinary and accepted procedure is for the court, in deference to the natural rights of the unsuccessful parent, to include in the decree a provision permitting the parent deprived of custody to have privileges of visitation." Griffin v. Griffin, 75 S.E.2d 133, 138 (N.C. 1953); see also Wilkins v. Wilkins, 120 N.W. 907, 908 (Neb. 1909). Modern statutes with such rules include 750 ILL. COMP. STAT. ANN. 5/607(a) (West 1997); KAN. STAT. ANN. § 60-1616(a) (Supp. 1996); KY. REV. STAT. ANN. § 403.320(1) (Michie Supp. 1995); LA. CIV. CODE ANN. art. 136A (West 1997); MASS. ANN. LAWS ch. 208, § 31 (Law. Co-op. 1994).

^{3.} For an illuminating discussion of historical trends in custody adjudication, see Robert H. Mnookin, *Child Custody Adjudication: Judicial Functions in the Face of Indeterminacy*, LAW & CONTEMP. PROBS., Summer 1975, at 226, 234.

JOEL BISHOP, COMMENTARIES ON THE LAW OF MARRIAGE 520 (Boston, Little, Brown & Co. 1852); see also Latham v. Latham, 71 Va. (30 Gratt.) 307, 337 (1878).

^{5.} Ullman v. Ullman, 135 N.Y.S. 1080, 1083 (App. Div. 1912); see also Moore v. Moore, 183 S.E.2d 172 (Va. 1971); J.B. v. A.B., 242 S.E.2d 248 (W. Va. 1978).

^{6.} See, e.g., CAL. CIV. CODE § 4600(c) (West 1997); FLA. STAT. ANN. § 61.13(1)(b)1. (West 1997); NEB. REV. STAT. § 42-364(2) (Supp. 1996); OR. REV. STAT. § 107.105(1)(b) (Supp. 1996). The American Law Institute, wishing to do away with a terminology that treated the child as the parent's possession, refers instead to "residential responsibility." PRINCIPLES

While the "best interests" standard at first resulted in a presumption of maternal custody, it later came to mean something very different. Courts came to aim directly at the best interests of the child, without applying any presumptions about which parent should get custody. The presumption of maternal custody was seen as antiquated, and most state divorce laws were amended to remove it and make custody gender neutral. A minority of states have since moved to a primary-caretaker rule, which awards custody to the parent who had the primary responsibility for the child during the marriage.

At the same time, other family-law changes advantaged erring husbands. In $Orr\ v$. Orr^9 the Supreme Court held that sex-based custody preferences in alimony were unconstitutional. Alimony came to be seen as a temporary relief measure for divorced wives who would soon become self-sufficient as well. Divorcing husbands were further advantaged by no-fault divorce laws, which dispensed with fault requirements on divorce. In a fault regime, the party seeking a divorce (often the husband) must offer a side payment to his spouse if he was at fault. Because fault is penalized in this way, there will be less of it, and fewer divorces than under no-fault. 12

The move to joint custody, which has become much more common in the last twenty years, ¹³ has also been seen to advantage husbands. Currently, courts in virtually all states are authorized to consider joint-custody arrangements, ¹⁴ and

OF THE LAW OF FAMILY DISSOLUTION § 2.09 cmt. a, at 106; see, e.g., COLO. REV. STAT. ANN. § 14-10-123.4 (West 1997); ME. REV. STAT. ANN. tit. 19, § 752(1)(A) (West Supp. 1996-1997); 23 PA. CONS. STAT. ANN. § 5312 (West 1991); TEX. FAM. CODE ANN. § 153.001(a) (West 1996).

- 7. See, e.g., ARK. CODE ANN. § 9-13-101 (Michie 1995); VA. CODE ANN. § 20-107.2 (Michie Supp. 1997).
- 8. See, e.g., Pikula v. Pikula, 374 N.W.2d 705 (Minn. 1985); Brooks v. Brooks, 466 A.2d 152 (Pa. Super. Ct. 1983); Commonwealth ex rel. Jordan v. Jordan, 448 A.2d 1113 (Pa. Super. Ct. 1982); Garska v. McCoy, 278 S.E.2d 357 (W. Va. 1981).
 - 9. 440 U.S. 268 (1979).
- 10. See id. at 269; see also Ex parte Devine, 398 So. 2d 686 (Ala. 1981); State ex rel. Watts v. Watts, 350 N.Y.S.2d 285 (Fam. Ct. 1973).
- 11. See, e.g., Margaret F. Brinig & Steven M. Crafton, Marriage and Opportunism, 23 J. LEGAL STUD. 869, 877-78 & n.47 (1994).
- 12. See Margaret F. Brinig & F.H. Buckley, No-Fault Laws and At-Fault People, 5 INT'L REV. L. & ECON. (forthcoming 1998).
- 13. For a relatively early (and frequently cited) award of joint custody, see Beck v. Beck, 432 A.2d 63 (N.J. 1981). For a very early award of joint custody, see Mullen v. Mullen, 49 S.E.2d 349, 356 (Va. 1948).
- 14. For a tally as of summer 1996, see PRINCIPLES OF THE LAW OF FAMILY DISSOLUTION § 2.09 reporter's notes to cmt. f, at 153-55 (Preliminary Draft No. 6, 1996). See also the yearly summary of Linda D. Elrod & Robert G. Spector, A Review of the Year in Family Law: Children's Issues Take Spotlight, 29 FAM. L.Q. 741, 769 tbl.2, 771 (1996). For a typical statute, see GA. CODE ANN. § 19-9-3(d) (Supp. 1997): "It is the express policy of this state to cncourage that a minor child has continuing contact with his parents . . . who have shown the ability to act in the best interest of the child and to encourage parents to share in the rights and responsibilities of raising their children" Id. Section 19-9-3(a)(5) provides that joint custody may be considered as an alternative form of custody by the court. See id. § 19-9-3(a)(5).

nearly a quarter presume that this will be in the child's best interests. Since wives were more likely to be granted sole custody under the primary-caretaker rule, the move to joint custody means that husbands (wives) on average see more (less) of their children after divorce.

Joint custody means more than a sharing of physical custody, as parents must share the responsibility for the child's upbringing. Both parents are to be consulted on major decisions, and each might veto the other's decisions. This contemplates a cooperative relationship after divorce and also means that a husband who pays child support can better see how his money is spent under joint custody.

TABLE I. STATE JOINT-CUSTODY LAWS

Year of Enactment of Joint-Custody Statutes, or Adoption by Case. States which had not enacted such laws by 1993 are denoted by a 0.

State Name	JOINT CUSTODY
Alabama	0
Alaska	1982
Arizona	1991
Arkansas	0
California ·	1979
Colorado	1983
Connecticut	1981
Delaware	1981
Florida	1979
Georgia	1990
Hawaii	1980
Idaho	1982
Illinois	1986
Indiana	1973
Iowa	1977

Kansas	1979
Kentucky	1979
Louisiana	1981
Maine	1981
Maryland	1984
Massachusetts	1983
Michigan	1981
Minnesota	1981
Mississippi	1983
Missouri	1983
Montana	1981
Nebraska	1983
Nevada	1981
New Hampshire	1974
New Jersey	1981
New Mexico	1982
New York	1981

^{15.} See, e.g., FLA. STAT. ANN. § 61.13(b)(1) (West Supp. 1997). The list, with variations, appears in PRINCIPLES OF THE LAW OF FAMILY DISSOLUTION § 2.09 reporter's notes to cmt. f, at 154-55 (reporting that five states presume joint custody when the parties agree, while six allow the presumption to be overcome by a preponderance of evidence in favor of an alternative award when this is in the child's best interests).

^{16.} See, e.g., ARK. CODE ANN. § 9-13-101 (Michie Supp. 1995); VA. CODE ANN. § 20-107.2 (Michie Supp. 1997).

North Carolina	1979
North Dakota	1993
Ohio	1981
Oklahoma	1990
Oregon	1987
Pennsylvania	1981
Rhode Island	1992
South Carolina	, 0
South Dakota	1989
Tennessee	1986

Texas	1987
Utah	1988
Vermont	1992
Virginia	1987
Washington	0
West Virginia	0
Wisconsin	1979
	1993

Table I lists the states which promote joint custody, and the year in which such laws were adopted. When a state mentions joint custody as an option, we deem it to be a joint-custody state, since courts in all such states appear ready to grant joint custody. Where the statute does not refer to joint custody as an option, but reported cases support such awards, we also list the state under the joint-custody column. On this definition, virtually all states are joint-custody states today, but many were not during the earlier period of our study.

II. THE CRITIQUE OF JOINT CUSTODY

This Part considers three objections to joint custody. First, it is said to harm children because custody might be shared with unfit fathers. Second, joint custody is said to effect a wealth transfer from women, who will trade off assets for increased access to their children. Third, the move to joint custody might have no effect on actual custody arrangements when the parties bargain around the legal rule.

These objections raise empirical issues which are beyond the scope of this paper. As such, we cannot assert that the move to joint custody is necessarily benign. However, some of the objections seem less than compelling to us, while the advantages to joint custody which we discuss in the next Part seem somewhat persuasive.

A. The Efficacy of Judicial Screening

Some feminists argue that joint custody ill-serves children. In the move from maternal custody, it is said, fathers who really did not want to raise their child have been awarded joint custody. 18 The move to joint custody has also been seen

^{17.} This would include joint legal custody or joint physical custody. For definitions, see *infra* note 34.

^{18.} See, e.g., Martha Fineman, Dominant Discourse, Professional Language, and Legal Change in Child Custody Decisionmaking, 101 HARV. L. REV. 727, 761 (1988); Trina Grillo, The Mediation Alternative: Process Dangers for Women, 100 YALE L.J. 1545, 1594-96 (1991);

as unfair to women. In the stress on the child's well-being, the mother's contributions during marriage are devalued. The father's newfound interest in child rearing is heralded and welcomed, while the more faithful mother's longtime contributions are ignored.¹⁹ More radical feminists see joint custody as a tool to control former wives.²⁰ The debate is often highly politicized, and joint custody is indeed strongly supported by a fathers' rights movement.²¹

No one would want to award joint custody to an unfit parent, and there is evidence that children whose parents have been involved in violent conflicts may fare better on divorce.²² Courts in joint-custody states are therefore enjoined to award sole custody to the fit parent in such cases.²³ To the extent that this objection is telling, it raises a concern about the efficacy of judicial screening. If courts can always spot the unfit parent, the problem does not arise. But of course judicial screening is never perfect, and in some cases a joint-custody award might not be in the child's best interests. As well, the fear of such an award might deter a risk-averse wife from leaving an abusive relationship.²⁴ During marriage she can monitor her husband's behavior to the child; after divorce she cannot do so as easily unless she has sole custody.

- Elizabeth Scott & Andre Derdeyn, Rethinking Joint Custody, 45 OHIO ST. L.J. 455, 478 (1984). 19. See Karen Czapanskiy, Volunteers and Draftees: The Struggle for Parental Equality, 38 UCLA L. Rev. 1415 (1991); Grillo, supra note 18.
- 20. See, e.g., Fineman, supra note 18; Mary Ann Mason, Motherhood v. Equal Treatment, 29 J. FAM. L. 1, 26-27 (1990-91); Rena K. Uviller, Fathers' Rights and Feminism, The Maternal Presumption Revisited, 1 HARV. WOMEN'S L.J. 107 (1970).
- 21. See Robert E. Fay, The Disenfranchised Father, 36 ADVANCED PEDIATRICS 407 (1989); Jerry W. McCant, The Cultural Contradiction of Fathers as Nonparents, 21 FAM. L.Q. 127 (1987). For a more moderate approach that proposes the replication of intact family patterns, see John S. Murray, Improving Parent and Child Relationships Within the Divorced Family: A Call for Legal Reform, 19 U. MICH. J.L. REFORM 563 (1986). For a popular account of a father's rights movement, see Stephanie B. Goldberg, In All Its Variations, the Fathers' Rights Movement Is Saying One Thing—Make Way for Daddy, A.B.A. J., Feb. 1997, at 48.
- 22. See Alan Booth & John N. Edwards, Transmission of Marital and Family Quality over the Generations: The Effect of Parental Divorce and Unhappiness, 13 J. DIVORCE 41, 55 (1989).
- 23. See PRINCIPLES OF THE LAW OF FAMILY DISSOLUTION § 2.13, at 193-209 (Prcliminary Draft No. 6, 1996); e.g., VA. CODE ANN. § 20-124.3(8) (Michie 1995). "The trial judge is required to consider '[a]ny history of family abuse as . . . defined in § 16.1-228' when determining custody of minor children." Davenport v. Davenport, No. 1517-93-2, 1995 WL 40245, at *1 (Va. Ct. App. Jan. 31, 1995) (alteration and omission in original) (citation omitted) (quoting VA. CODE ANN. § 20-124.3(8)).
- 24. Concerns about marital violence lurk behind the critique of "staying together for the sake of the child." Linda J. Lacey, Mandatory Marriage "For the Sake of the Children": A Feminist Reply to Elizabeth Scott, 66 Tul. L. Rev. 1435 (1992); see also Linda R. Keenan, Domestic Violence and Custody Litigation: The Need for Statutory Reform, 13 HOFSTRA L. Rev. 407, 426 (1985). See generally MARTHA L. FINEMAN, THE ILLUSION OF EQUALITY 119-26 (1991); D. Marianne Brower Blair, Parent-Initiated Termination of Parental Rights: The Ultimate Weapon in Matrimonial Warfare, 24 Tulsa L.J. 299, 343-50 (1989) (criticizing Judith Wallerstein's studies).

These concerns suggest a useful empirical agenda.²⁵ However, it is wrong to conclude that screening problems occur only under joint custody. Courts may also err under sole custody, and award exclusive custody to an unfit parent. There is indeed little reason to think that these problems are more severe under joint than sole custody. We might fear a grant of joint custody to unfit fathers if male family-law judges, under the grip of a humanist ideology, systematically favored men. But can anyone seriously think that this describes family-law courts in America? Moreover, given the better monitoring available through shared custody, joint custody's self-correcting tendencies are plausibly stronger than those of sole custody.

B. Wealth-Transfer Effects

The rise of joint custody may also disadvantage women in their property negotiations.²⁶ On divorce, the parties might trade off property for custody.²⁷ Under a sole maternal-custody default rule, for example, a devoted father might offer a greater share of his property for increased access to his child. Alternately, under joint custody, a wife might trade off property for sole custody, if she values sole custody more highly than her spouse values joint custody. Even if both regimes are valued equally, the change from a maternal-custody regime to joint custody might advantage men if women are systematically more risk averse than men.²⁸ Joint custody has also been said to harm women who participate in divorce mediation. Given the option of joint custody, mediation encourages women to sacrifice the economic leverage a sole-custody regime gives them.²⁹

Even if wealth-transfer effects are anticipated, however, they would seem better addressed through stronger property entitlements, assuming that joint-custody rules are otherwise benign. On a move to joint custody, wives might be offered a greater share of the matrimonial assets if the couple has a child. Wives might further be advantaged in property negotiations if no-fault laws are relaxed and property and support duties are made to depend on marital fault, as we have elsewhere proposed.³⁰

^{25.} We are at present attempting to conduct such a test, though data-limitation problems are substantial.

^{26.} See Martha L. Fineman, The Politics of Custody and the Transformation of American Custody Decision Making, 22 U.C. DAVIS L. REV. 829 (1989); Nancy D. Polikoff, Gender and Child Custody Determinations: Exploding the Myths, in FAMILIES, POLITICS AND PUBLIC POLICY 183, 187-92 (Irene Diamond ed., 1983).

^{27.} See Robert H. Mnookin & Lewis Kornhauser, Bargaining in the Shadow of the Law: The Case of Divorce, 88 YALE L.J. 950, 963-66 (1979).

^{28.} For evidence of differential risk aversion in custody decisions, see Margaret F. Brinig, Does Mediation Disadvantage Women?, 2 WM. & MARY J. WOMEN & L. 1 (1995).

^{29.} See Grillo, supra note 18.

^{30.} See Brinig & Buckley, supra note 12.

C. Coasian Irrelevance

Custody laws might be trivial, in the sense that they do not determine who raises the child. This is just what the Coase Theorem would predict: Legal rules do not affect outcomes when the parties can bargain around the rules.³¹ If so, the move to joint custody might have wealth-transfer effects, but will not affect actual custody arrangements. The child will always end up with the parent who values him most.

Whether joint-custody laws are Coasian is an empirical question. There is some evidence that couples awarded joint custody settle into custody patterns not unlike those under sole custody.³² However, the empirical issue is by no means settled. Moreover, as a theoretical matter, the Coasian critique might fail in several ways. First, even parents of ordinary delicacy might be unwilling to treat their children as fungible with money in bargaming over custody. One reason for this is that the willingness to "sell" one's child might be taken as a signal of parental unfitness.

Second, even if parents do bargain over custody, it is not clear that such bargains would be enforced by courts. For example, the bargain's signal of parental unfitness might be taken by a court as a reason to deny custody. Moreover, some courts in sole-custody regimes simply frown on joint custody, even if the parents appear to have agreed to it.³³ As well, private joint-custody agreements would contain terms which courts would not enforce. Fathers seek more than time with their children. They also seek the recognition that they have an important role to play after divorce, and a continued right to influence their children's lives.³⁴ Unlike fathers with mere visitation rights, joint-custody fathers

^{31.} See R.H. Coase, The Problem of Social Cost, J.L. & Econ., Oct. 1960, at 1.

^{32.} See ELEANOR E. MACCOBY & ROBERT H. MNOOKIN, DIVIDING THE CHILD 113-14, 225 (1992); Catherine R. Albiston et al., Does Joint Legal Custody Matter?, 2 STAN. L. & POL'Y REV. 167 (1990); Judith A. Seltzer, Legal Custody Arrangements and Children's Economic Welfare, 96 Am. J. Soc. 895, 900 (1991) [hereinafter Seltzer, Legal Custody] (reporting few differences in physical-custody arrangements, but lower child-support payments by noncustodial fathers).

Whatever the custody award, in practice one parent, usually the mother, will have primary physical custody. See MACCOBY & MNOOKIN, supra; Margaret F. Brinig & Michael V. Alexeev, Trading at Divorce: Preferences, Legal Rules and Transaction Costs, 8 OHIO ST. J. ON DISP. RESOL. 279 (1993); Judith A. Seltzer, Consequences of Marital Dissolution for Children, 20 ANN. REV. Soc. 235 (1994) [hereinafter Seltzer, Consequences].

^{33.} For a recent example, see Woodall v. Woodall, 471 S.E.2d 154, 156-58 (S.C. 1996).

^{34.} See, for example, section 20-124.1 of the Virginia Code for the definition of joint custody in its legal and physical manifestations.

[&]quot;Joint custody" means (i) joint legal custody where both parents retain joint responsibility for the care and control of the child and joint authority to make decisions concerning the child even though the child's primary residence may be with only one parent, (ii) joint physical custody where both parents share physical and custodial care of the child or (iii) any combination of joint legal and joint physical custody which the court deems to be in the best interest of the child.

VA. CODE ANN. § 20-124.1 (Michie Supp. 1997) (emphasis in original); see also MACCOBY & MNOOKIN, supra note 32, at 289.

must be consulted in all important decisions involving their children. They have access to medical and school records, and are entitled to attend school conferences and all other major events in their children's lives. These privileges follow from the status of joint custody, and cannot be purchased in an enforceable bargain.

Third, attitudes to children might in part be shaped by the legal regime, as a consequence of the custody award's wealth-transfer effects. The claim that custody laws are trivial assumes that preferences for children are exogenous, and unaffected by the custody regime. But preferences inight be endogenous, and partly determined by the award of custody.

This might happen when the mother's willingness to pay for sole custody in a joint-custody regime is less than what she would accept in agreeing to joint custody in a sole-custody regime.³⁵ Suppose that (1) the mother's initial endowment of assets is \$10,000 and her access to credit is constrained, (2) under sole maternal custody, she would not agree to share custody for less than \$50,000, and (3) the father places a value of \$20,000 on joint custody. Under sole custody, the parties will fail to reach an agreement, since the mother values sole custody more than the father values joint custody. Thus the child will remain under the mother's sole care. The parties will also fail to reach an agreement under joint custody, since the father will not surrender joint custody for less than \$20,000, while the mother cannot raise more than \$10,000 for sole custody. The award of joint custody will then remain undisturbed, and Coasian irrelevance will fail to hold.³⁶

Seeing more of their children under joint custody, the fathers might feel greater affection for them, and be more willing to spend time with them. By contrast, the noncustodial father not infrequently loses interest in the child.³⁷ Noncustodial fathers often disengage from their children after divorce, and instead devote themselves to new children acquired through cohabitation or remarriage.³⁸

The change in the legal regime might have affected bargaining behavior in another way. When joint custody was uncommon, fathers did not seek custody, and women were regarded as poor mothers if they did not do so.³⁹ The change in social norms has increased the demand by fathers for joint custody, and may in part have resulted from a change in legal norms. Changes in legal rules have been

^{35.} See generally Don L. Coursey et al., The Disparity Between Willingness to Accept and Willingness to Pay Measures of Value, 102 Q.J. ECON. 679 (1989); W. Michael Hanemann, Willingness to Pay and Willingness to Accept: How Much Can They Differ?, 81 AM. ECON. REV. 635 (1991); Daniel Kahneman et al., Experimental Tests of the Endowment Effect and the Coase Theorem, 98 J. Pol. Econ. 1325 (1990).

^{36.} Or will hold under the caveat that endowment or income effects are ignored. See Donald H. Regan, The Problem of Social Cost Revisited, 15 J.L. & ECON. 427 (1972). Our Appendix models the welfare effects of a shift from sole to joint custody.

^{37.} See Yoram Weiss & Robert J. Willis, Children as Collective Goods in Divorce Settlements, 3 J. LAB. ECON. 268, 288 (1985).

^{38.} See Seltzer, Consequences, supra note 32, at 260.

^{39.} A married mother one of us knows says she still "can't help" trying to spend more time than her husband does with the kids. She feels like a "bad mom" otherwise. The distinctions are explored at length in Czapanskiy, *supra* note 19.

said to affect social norms in such matters as racial discrimination and seat belts,⁴⁰ and may also have changed parenting norms.

III. THE DEFENSE OF JOINT CUSTODY

This Part describes how joint custody might benefit children. If the move to joint custody does affect actual custodial arrangements, children might benefit both before and after divorce. Before divorce, the prospect of joint custody might reduce a father's fear that he will lose access to his child. He might therefore invest more emotion in his child, and increased paternal bonding may reduce the possibility of divorce. After divorce, fathers might provide better emotional and financial support for their children when custody is shared. Even if a move to a joint-custody regime does not affect actual custodial arrangements, it gives noncustodial parents a greater ability to monitor how their child-support payments are spent. Monitoring theories therefore predict increased child-support levels under joint custody.

We test bonding and monitoring theories of joint custody in Part IV.

A. Benefits Before Divorce: Bonding Theories

When divorce is not a final separation, fathers may permit themselves to bond more closely with their children. In bonding more closely with their children, they will also bond more closely to their wives, since family affections are not contained in watertight compartments. Fathers might also feel more willing to bond more closely to their wives during marriage when they anticipate continued ties through joint custody after divorce.

For economists, bonding (or "hands-tying") strategies are devices which a bargainer employs to signal that he will perform his promises, when they cannot be legally enforced or when legal enforceability offers inadequate incentives to perform. To persuade the promisee of his intention to perform, the promisor might bind himself to do so by undertaking to incur a cost on breach. For example, a medieval prince might seal his treaty by sending his son to live with his cocontractor. This would greatly increase the penalty for breach, and would permit the cocontractor to rely more on the prince's promise. Absent the bonding strategy, no one might rely on a promise, and the benefits of bargaining might be lost.

As in international law, legal sanctions in family law may inadequately constrain promise breakers. Divorce rights cannot be waived, with the result that the parties will walk into marriage with fewer expectations today than they had 100 years ago. Given the relaxation of legal enforcement, the parties might substitute bonding devices to signal their credibility. For example, the custom of giving a ring on an engagement can be seen as a bonding device, and ring-giving

^{40.} See Cass R. Sunstein, Social Norms and Social Rules, 96 COLUM. L. REV. 903 (1996).

^{41.} See generally JON ELSTER, ULYSSES AND THE SIRENS 37-47 (rev. ed. 1984) (defining bonding strategies' relation to imperfect rationality); Oliver E. Williamson, Credible Commitments: Using Hostages to Support Exchange, 73 AM. ECON. REV. 519 (1983).

appears to have increased after the common law action for breach-of-promise was abolished.⁴² Apart from a willingness to hazard material assets, a promisor might bind himself by undertaking to bear emotional distress on breach.⁴³ As A.E. Housman noted, giving one's heart away is a risky strategy.⁴⁴ However, the economist (if not the poet) might consider this a useful bonding device, if it reliably signals the promisor's credibility.

This assumes that the decision to bear emotional distress may be deliberate. The question how our reason might command our passions is an old one, much beloved of dualists, and a famous answer was given by Pascal. How is it, he asked, that one can come to believe in the Catholic faith, even if reason tells us that such a belief is reasonable? The knowledge that it is rational to believe does not produce belief, any more than the knowledge that it is rational to love produces love. Only custom and sentiment, and not rational argument, can persuade. Nevertheless, an internal reason can tell us how to harness external custom to effect a change in sentiments. "Il faut que l'extérieur soit joint à l'intérieur pour obtenir de Dieu; c'est-à-dire que l'on se mette à genoux, prie des lèvres, etc., afin que l'homme orgueilleux qui n'a voulu se soumettre à Dieu soit maintenant soumis à la créature."45 So too, reason may tell a father to bond more closely with his children when the probability of a cut-off of custody rights is reduced. He might then spend more time with his children, knowing that this, like kneeling and praying aloud, will change his sentiments. Shaping one's passions in this way is not irrational, but is instead an example of how "[i]l n'y a rien de si conforme à la raison que ce désaveu de la raison."46

Pascal's claim that reason may control the passions might offend the Romantic, who believes that one cannot choose to give one's heart away. But who of the two is right is an empirical objection, and the evidence more clearly supports Pascal than the Romantic. For example, the move to no-fault divorce laws plausibly increased the probability of divorce,⁴⁷ and is significantly correlated with lower marriage rates.⁴⁸ If we are a less romantic society today, then in part the blame may be laid at the door of divorce liberalization.

We therefore hypothesize that a move to joint custody will decrease divorce rates. Fathers will react to the change in the law by permitting themselves, through a thousand quotidian acts, to grow more attached to their families. And as a consequence, they will find themselves less ready to leave them.

Reducing divorce rates would almost certainly be in the best interests of children. Thirty years ago, before the run-up in divorce rates, liberationist

^{42.} See Margaret F. Brinig, Rings and Promises, 6 J.L. ECON. & ORG. 203 (1990).

^{43.} See Robert H. Frank, If Homo Economicus Could Choose His Own Utility Function, Would He Want One with a Conscience?, 77 AM. ECON. REV. 593 (1987).

^{44.} See A.E. HOUSMAN, A SHROPSHIRE LAD 9-10 (Stanley Appelbaum ed., Dover Publications, Inc. 1990) (1896).

^{45.} BLAISE PASCAL, PENSÉES 944 250 115 (Hubert Carrier ed., Nouveaux Classiques illustrés Hachette 1976) (1669); see also DAVID HUME, Of Polygamy and Divorces, in ESSAYS, MORAL, POLITICAL, AND LITERARY 181 (Eugene F. Miller ed., Liberty Classics 1987) (1742).

^{46.} PASCAL, supra note 45, at 182 272 43.

^{47.} See Brinig & Buckley, supra note 12.

^{48.} See Brinig & Crafton, supra note 11, at 884-85.

philosophers, both male and female, argued that divorce did not harm children. Indeed, they argued, children might be better off after divorce if the parents have been fighting. But very few people, ideologues apart, still believe that increased divorce levels are benign. Children are surprisingly resilient in getting over parental fights.⁴⁹ What children do not get over is divorce.

A great deal of research suggests that divorce harms children.⁵⁰ The least controversial way in which children are harmed is financially. Children of divorce make up a very large proportion of those below the poverty level ⁵¹ and historically have received the majority share of public-assistance payments.⁵² Even on conservative estimates, custodial parents (mostly women) and their children suffer a decline in living standards while noncustodial parents (mostly men) do better after divorce.⁵³ Quite apart from these wealth transfers, one would expect children to suffer financially on divorce. After separation, the parties must maintain two households, eliminating economies of scale that were present during the marriage.⁵⁴ Finally, decades of federal intervention have not ameliorated the child-support enforcement problem.⁵⁵ Nor can visitation rights be tied to child support.⁵⁶

- 49. See, e.g., Elizabeth S. Scott, Rational Decisionmaking About Marriage and Divorce, 76 VA. L. REV. 9, 29-38 (1990), and sources cited therein.
- 50. A popular account can be found in BARBARA DAFOE WHITEHEAD, THE DIVORCE CULTURE (1997), reprising her earlier article, Barbara Dafoe Whitehead, Dan Quayle Was Right, ATLANTIC, Apr. 1993, at 47. For summaries of the literature by social scientists, see E. Mavis Hetherington et al., Long-Term Effects of Divorce and Remarriage on the Adjustment of Children, 24 J. Am. ACAD. CHILD PSYCHIATRY 518 (1985); Judith S. Wallerstein, The Long-Term Effects of Divorce on Children: A Review, 30 J. Am. ACAD. CHILD & ADOLESCENT PSYCHIATRY 349 (1991); see also David L. Chambers, Rethinking the Substantive Rules for Custody Disputes in Divorce, 83 MICH. L. REV. 477 (1984) (suggesting new standards for resolving custody disputes); Elizabeth S. Scott, Pluralism, Parental Preference, and Child Custody, 80 CAL. L. REV. 615 (1992) (arguing that future custody arrangements should focus on the child's past relationship with the parent).
- 51. See, e.g., IRWIN GARFINKEL & SARA S. MCLANAHAN, SINGLE MOTHERS AND THEIR CHILDREN 12-14 (1986); Sara S. McLanahan & Irwin Garfinkel, Single Mothers, the Underclass, and Social Policy, 501 ANNALS AM. ACAD. POL. & SOC. SCI. 92, 98-99 (1989) (reporting that 18% of single mothers in 1987 had been dependent on welfare for 10 or more years and 24% of their daughters will be dependent on welfare).
- 52. See June Carbone, Income Sharing: Redefining the Family in Terms of Community, 31 HOUS. L. REV. 359 (1994). See generally McLanahan & Garfinkel, supra note 51.
- 53. See generally Greg J. Duncan & Saul D. Hoffman, A Reconsideration of the Economic Consequences of Marital Dissolution, 22 DEMOGRAPHY 485 (1985) (discussing the impact of divorce and separation on the economic status of men and women using longitudinal data); Richard A. Peterson, A Re-evaluation of the Economic Consequences of Divorce, 61 AM. Soc. Rev. 528 (1996) (arguing that the decrease in the standard of living for women after divorce is 47% and the increase in the standard of living for men after divorce is 10%).
- 54. See Weiss & Willis, supra note 37, at 269; see also VICTOR R. FUCHS, HOW WE LIVE 73 (1983).
- 55. See David L. Chambers, Fathers, the Welfare System, and the Virtues and Perils of Child-Support Enforcement, 81 VA. L. REV. 2575 (1995).
- 56. See PRINCIPLES OF THE LAW OF FAMILY DISSOLUTION § 2.22 cmt. d, at 369 (Preliminary Draft No. 6, 1996), and sources cited in *id*. § 2.22 reporter's notes to cmt. d, at 375; see also Czapanskiy, supra note 19.

Children also lose out through their distance from their parents. After separation, of course, the noncustodial parent will see far less of his children. What is not well realized is that this may be true of the custodial spouse as well, if she must find a job outside the home.⁵⁷ The custody arrangement simply cannot mirror the predivorce sharing of rewards and responsibilities.

Children of divorced parents lose more than financial resources.⁵⁸ Most no longer have two parents who are actively involved in raising them.⁵⁹ The children (particularly if young) may blame themselves for the divorce.⁶⁰ If the parents continue to squabble over visitation and finances or who caused the marital dissolution, the children necessarily witness a pathological adult relationship. Even if the separation is peaceful, the custodial parent may be so overwhelmed by the heavy demands of full-time employment and single parenthood that there is simply little energy left for the children. Discipline may be neglected, and the children left largely to their own emotional and intellectnal resources.⁶¹ The picture becomes decidedly more complicated if either parent begins a new adult

^{57.} See, e.g., Bonjour v. Bonjour, 592 P.2d 1233, 1237 (Alaska 1979); In re Marriage of Arcante, 632 N.E.2d 1082, 1086 (Ill. App. Ct. 1994); In re Marriage of Kleist, 538 N.W.2d 273 (Iowa 1995); Olive v. Olive, No. 91CA005200, 1992 WL 139997 (Ohio Ct. App. June 17, 1992). See generally Laura Sack, Women and Children First: A Feminist Analysis of the Primary Caretaker Standard in Child Custody Cases, 4 YALE J.L. & FEMINISM 291, 313-15 (1992) (discussing parental fitness after divorce and the primary-caretaker standard in Minnesota).

^{58.} Perhaps the most cited collection of studies is Scott, *supra* note 49, at 29-32. For a case noting the growing literature on divorce pathologies, see *Veazey* v. *Veazey*, 560 P.2d 382, 386 (Alaska 1977).

^{59.} According to one survey of children living with mothers, 35.5% of the custodians reported that their children had not seen their fathers in a year; only 16.4% saw their fathers as often as once a week. See Frank F. Furstenberg, Jr. et al., The Life Course of Children of Divorce: Marital Disruption and Parental Contact, 48 AM. Soc. Rev. 656, 663 (1983).

^{60.} See generally ROBERT E. EMERY, MARRIAGE, DIVORCE, AND CHILDREN'S ADJUSTMENT (1989) (discussing the effects of divorce on children).

^{61.} Hetherington and others have found that custodial mothers were less communicative and affectionate with their children and more inconsistent and less effective in setting limits than were mothers in intact families. Custodial mothers particularly had problems dealing with their sons. See E. Mavis Hetherington et al., Effects of Divorce on Parents and Children, in NONTRADITIONAL FAMILIES 233, 252 (Michael E. Lamb ed., 1982). The parenting by custodial mothers had improved by two years after the divorce. See id. at 251-60. Six years after divorce, mothers continued to be less effective in disciplining sons, but were as affectionate as mothers in intact families. See Hetherington et al., supra note 50, at 527. Emery describes other research findings on deterioration in parenting. Some parents become "overly permissive, rigid or emotionally dependent" on their children although, after a period of adjustment, most parents improve in their functioning. EMERY, supra note 60, at 83. Some long-term disruptions were observed, particularly among mothers who were depressed, who were isolated from relatives and friends, who had experienced severe economic concerns, or who had several young children. See id. at 81-86. See generally Robert E. Emery et al., Divorce, Children and Social Policy, in CHILD DEVELOPMENT RESEARCH AND SOCIAL POLICY 189, 210-17 (Harold W. Stevenson & Albert E. Siegel eds., 1984) (discussing the difficulties experienced by parents and children in adjusting to their new roles, as well as the inconsistent levels of affection and discipline resulting from these new situations).

relationship: the children may feel (or even be) rejected for the new romance or a new half-sibling.

The costs of divorce for children have been studied in longitudinal comparisons between children of intact families and those of divorced parents. Short-term studies report that children are confused and depressed, sometimes clinically so.⁶² They fare worse in school,⁶³ have problems in their peer relationships, and are more apt to "act out."⁶⁴ Over the longer term, researchers report that the children of divorce are more likely to drop out of school.⁶⁵ Girls, especially, are more likely to be promiscuous.⁶⁶ Boys are more likely to become delinquents or criminals.⁶⁷ Both sexes have a higher rate of marital failure when they grow up.⁶⁸

^{62.} Children of divorce are disproportionately represented in outpatient mental-healthclinic populations. See Neil Kalter, Children of Divorce in an Outpatient Psychiatric Population, 47 Am. J. Orthopsychiatry 40 (1977).

^{63.} See M. Anne Hill & June O'Neill, Family Endowments and the Achievement of Young Children with Special Reference to the Underclass, 29 J. HUMAN RESOURCES 1064, 1085-86 (1994) (finding that growing up with a divorced parent has a significant, negative effect on children's test scores that disappears when family income is taken into account).

^{64.} In one of the most respected longitudinal studies, E. Mavis Hetherington and others at the University of Virginia studied 72 preschoolers (half girls and half boys) who were followed and evaluated for two years after divorce. See Hetherington et al., supra note 61, at 233. This group was compared to a control group of children in intact families. Children in divorced families were found to function worse on a number of psychological tests than those in intact families at two months and one year. However, they had improved substantially by two years after divorce. Girls behaved in a more compliant way than did boys. See id. Six years later, boys in divorced families continued to be less compliant than boys in intact families. See Hetherington et al., supra note 50, at 527. In another study, Judith Wallerstein and Joan Kelly found that children in California improved 18 months after divorce, but, like the Hetherington study, found that boys were more likely to have continuing problems than girls. See JUDITH S. WALLERSTEIN & JOAN B. KELLY, SURVIVING THE BREAKUP 161-67 (1980).

^{65.} Men raised in single-parent households had almost a year less education than those raised in intact families. See DAVID L. FEATHERMAN & ROBERT M. HAUSER, OPPORTUNITY AND CHANGE 234-46 (1978). Differences in intellectual performance increase as children grow older. See Hetherington et al., supra note 61, at 272.

^{66.} See E. Mavis Hetherington, Effects of Father Absence on Personality Development in Adolescent Daughters, 7 DEVELOPMENTAL PSYCHOL. 313 (1972).

^{67.} See J.W.B. Douglas, Broken Families and Child Behavior, 4 J. ROYAL C. PHYSICIANS 203, 208-10 (1970). See generally Robert E. Anderson, Where's Dad? Paternal Deprivation and Delinquency, 18 ARCHIVES GEN. PSYCHIATRY 641 (1968) (reporting that significant numbers of boys in juvenile institutions had experienced separation from their fathers). As Emery wrote, "divorce has consistently been found to be associated with externalizing problems among children. There is little need to review the research that substantiates this conclusion in detail because the association has been so well documented." EMERY, supra note 60, at 52. Emery cites numerous studies that indicate that children of divorce evidence more aggressive and delinquent behavior than children in intact families. Among these is Hetherington et al., supra note 61, at 267-72.

^{68.} Judith Wallerstein conducted a 10-year follow-up study in which she found long-term effects for some children. See JUDITH S. WALLERSTEIN & SANDRA BLAKESLEE, SECOND CHANCES: MEN, WOMEN AND CHILDREN A DECADE AFTER DIVORCE 233-35, 237-39 (1989). In contrast to the findings immediately after separation, children who were older at the time of divorce experienced more continuing anger and sadness 10 years later than younger children.

Joint custody might also result in better child rearing. If parents expect that divorce is possible, and that sole custody will be awarded to the parent to whom the child is closest, they have an incentive to cut out the other parent in a struggle for the child's affections, and turn the family into an Oedipal battlefield. Thus the move to joint custody might reduce parental possessiveness and self-centeredness in child rearing.⁶⁹

There would be a strong reason to promote joint custody if it significantly reduced divorce levels in the manner predicted by bonding theories. However, joint custody might actually result in increased divorce rates under incentive theories. To the extent that joint custody renders divorce less fearful, a spouse who would otherwise be noncustodial has more incentive to commit the matrimonial faults which lead to divorce. There is no reason a priori to believe that one theory better than another predicts divorce levels. They must therefore be tested empirically, as we do in Part IV.

B. Benefits After Divorce: Emotional and Financial Support

If children spend more time with their fathers under joint custody, this may benefit them in other ways. In general, two parents are better than one. The Fathers will see their children as part of their normal life, and may dispense with the joyless search for "quality time" with them on weekends or vacations. The parents will be better able to perform their complementary roles, and to balance each other's power. They may also more easily serve as exemplars whom the children may emulate as they mature.

Joint custody also formalizes a more normal bond between ex-spouses. The rancor of a divorce may be less bitterly felt and remembered when one knows that a common tie will remain and cannot be ignored. The joint deliberation over

In general, the long-term effects—particularly for girls—seem to be more harmful than had been previously believed. See Judith S. Wallerstein, Children of Divorce: Preliminary Report of a Ten-Year Follow-up of Older Children and Adolescents, 24 J. Am. ACAD. CHILD PSYCHIATRY 545 (1985). Some girls may seem to have adjusted well after divorce and only show the harmful effects as they reach adulthood and contemplate serious relationships themselves. See Judith S. Wallerstein, Children After Divorce: Wounds That Don't Heal, N.Y. TIMES, Jan. 22, 1989, § 6 (Magazine), at 19.

^{69.} See Katharine T. Bartlett, Re-Expressing Parenthood, 98 YALE L.J. 293 (1988); see also Jon Elster, Solomonic Judgments: Against the Best Interests of the Child, 54 U. CHI. L. REV. 1 (1987).

^{70.} This general principle is recognized in PRINCIPLES OF THE LAW OF FAMILY DISSOLUTION § 2.09(1)(f), at 104 (Preliminary Draft No. 6, 1996).

^{71.} See generally McCant, supra note 21; Goldberg, supra note 21.

^{72.} See Margaret F. Brinig, The Family Franchise, 1996 UTAH L. REV. 393.

^{73.} See Ira C. Lupu, The Separation of Powers and the Protection of Children, 61 U. CHI. L. REV. 1317 (1994).

^{74.} See DAVID POPENOE, LIFE WITHOUT FATHER (1996). See generally Marion F. Ehrenberg et al., Shared Parenting Agreements After Marital Separation: The Roles of Empathy and Narcissism, 64 J. Consulting & Clinical Psychol. 808 (1996).

the child's future might also reduce the level of acrimony, even from the start.⁷⁵ This also will ease the pain of divorce for children.

We do not suggest that joint custody is a panacea. As we have noted, unfit parents should be denied joint custody. Joint custody may also require parents to cooperate with an ex-spouse to whom they feel bitter. As well, the custody arrangements will have to be redrawn when one parent decides to move away. However, we suggest that the promise of joint custody may reduce the number of unfit fathers under bonding theories. Family bonding before marriage may also reduce parental bickering and the probability of a move after a divorce.

C. Benefits After Divorce: Monitoring Theories

Even if joint custody does not affect physical custody, it might still serve as a useful monitoring device to reduce agency costs between the parties. Agency costs describe the costs of anticipated misbehavior by agents to their principals. As used by economists, the definition of principal and agent is broader than that used by lawyers. For economists, agency refers to any consensual relationship among two or more parties in which one, the principal, implicitly confers authority on the second, the agent, whose decisions may confer benefits or impose costs on the principal.⁷⁶

Agency-cost theories may easily be extended to family law.⁷⁷ The choice between joint ownership and community of property in marriage is in part a choice between two different responses to an agency-cost problem. Granting one spouse the right to bind the other on the sale of matrimonial assets may economize on the transaction costs of negotiating the sale, but the interspousal grant of authority will also impose agency costs: some spouses will improvidently agree to property transfers which the other spouse would wisely have vetoed.

Agency costs may also arise in child rearing, both in marriage and after divorce. In marriage, both parties will implicitly agree to a sharing or division of parental responsibilities. It is costly to require a parental conference before every minor child-rearing decision. Some decisions would never be made, and the child would learn to play one parent against the other. On more important decisions, however, the parents must balance these costs against the agency costs of unilateral decisions by one parent alone.

^{75.} Section 3020 of the *California Family Code* states that custody laws should assure minor children of "frequent and continuing contact with both parents" after divorce, and "encourage parents to share the rights and responsibilities of child rearing in order to effect this policy." CAL. FAM. CODE § 3020 (West 1994); see also PRINCIPLES OF THE LAW OF FAMILY DISSOLUTION § 2.09 cmt. f, at 122-23.

^{76.} See Robert Cooter & Bradley J. Freedman, The Fiduciary Relationship: Its Economic Character and Legal Consequences, 66 N.Y.U. L. REV. 1045 (1991); Stephen A. Ross, The Economic Theory of Agency: The Principal's Problem, 63 Am. ECON. REV. PAPERS & PROC. 134 (1973).

^{77.} See Elizabeth S. Scott & Robert E. Scott, Parents as Fiduciaries, 81 VA. L. REV. 2401 (1995).

Divorce does not end, but instead exacerbates the agency-cost problem. Under sole custody, the noncustodial parent is asked to delegate exclusive child-rearing authority to the custodial parent at the same time that he is required to support the child. If the noncustodial parent has been found unfit to raise the child, this is just as it should be. But if the custody award is not an adverse comment on parenting abilities, the agency-cost problem is more pressing.

The noncustodial parent may be seen as a principal, and the custodial parent as an agent. The noncustodial parent will make child-support payments, but will not easily be able to monitor how the money is spent. He might simply disagree with the custodial parent's child-rearing decisions. Alternatively, he might worry that the custodial parent will shirk her duties or—worse still—misappropriate the funds. The noncustodial parent would want to condition support payments on child expenditures. But because he cannot verify actual expenditures on the child, this will prove unworkable. The noncustodial parent may react to the monitoring problem by cutting his support payments, to the child's detriment.

In other contexts, such as corporate law, the agency-cost problem may be more easily addressed through governance and liability strategies. For example, the misbehaving manager might have to account to a board of monitoring directors, or might be held liable civilly. However, these strategies are ordinarily not apposite in the family-law context. Absent egregious misbehavior, civil liability for misbehavior by either party would be apt to hurt the child. For example, cutting off visitation rights to a parent who missed support payments might deprive the child of the benefits of contact with the absent parent. Similarly, the noncustodial parent cannot prevent the custodial parent from spending money for her personal benefit. Moreover, if courts intervened over minor breaches, the parties might use the threat of litigation strategically. The atmosphere would be poisoned, and the benefits of joint deliberation over their child would be lost. At the case of the parties of the parties of joint deliberation over their child would be lost.

^{78.} See, e.g., Rosenblatt v. Birnbaum, 212 N.E.2d 37 (N.Y. 1965).

^{79.} See Weiss & Willis, supra note 37, at 279.

^{80.} See, e.g., Andrea H. Beller & John W. Graham, Child Support Payments: Evidence from Repeated Cross Sections, 78 Am. ECON. REV. PAPERS & PROC. 81 (1988).

^{81.} See Seltzer, Legal Custody, supra note 32, at 915.

^{82.} See Karen Czapanskiy, Child Support and Visitation: Rethinking the Connections, 20 RUTGERS L.J. 619 (1989). However, the court may provide noncontractual sanctions for parental misbehavior, such as incarceration for contempt and occasionally a change in the custody order. See, e.g., VA. CODE ANN. § 20-108 (Michie 1995).

^{83.} Cf. Rosenblatt, 212 N.E.2d at 40 (stating in dicta that diversion of funds will not end support obligations).

^{84.} Courts are also reluctant to permit bargaining between the spouses over child rearing after a custody award.

An attempt by a parent... to condition payment of child support upon an aspect of the parenting plan, ... or to hinder the performance by the other parent of duties provided in the parenting plan, shall be deemed bad faith and shall be punished... by holding the [parent] in contempt of court....

WASH. REV. CODE ANN. § 26.09.160(1) (West 1997). Compare Czapanskiy, supra note 82, (arguing for support and visitation to be linked in a positive way through dual parenting and responsibility), with Jessica Pearson & Jean Anhalt, Examining the Connection Between Child Access and Child Support, 32 FAM. & CONCILIATION CTS. REV. 93 (1994) (noting the linkage between support and visitation issues and arguing for a holistic resolution of both issues).

It is a mistake to assume that the interests of the child and the custodial parent must perfectly correspond. After an acrimonious divorce, the custodial parent may want emotional distance from the noncustodial parent, and may even want to hurt him. Thowever much parents may love and care for their children, . . . their own quite valid interests in distancing themselves from former spouses may conflict with a child's interests in sustaining relationships with both parents or other loved ones. This in turn may lead to a request for lower child support to minimize interference with the divorced family. If there is less visitation by a fit parent, both the noncustodial parent and the child lose. The custodial parent may even reduce demands for financial support in exchange for reduced visitation time from her ex-spouse.

In a bitter divorce, the custodial parent might seek to turn the children against the noncustodial parent, and this may impose financial as well as emotional costs on them. The child who rejects the noncustodial parent is less likely to receive his financial support, and courts might even agree to relax support duties in such cases.⁸⁹

We suggest that joint-custody awards might usefully address these agency-cost concerns. More frequent and prolonged contact with the children allows parents to participate in day-to-day decisions involving the children's welfare. Thus joint custody facilitates monitoring strategies which permit both parents to oversee the child-rearing decisions the other makes. With joint custody, therefore, we would expect child-support payments to be given more readily. In the next Part we report on an empirical test which supports the monitoring

[&]quot;Except as provided in an agreed plan that has been ordered by the court, it is not a defense to an action under this section by one party that the other party failed to meet obligations under a parenting plan or child support order." PRINCIPLES OF THE LAW OF FAMILY DISSOLUTION § 2.22(3), at 365 (Preliminary Draft No. 6, 1996); see also id. § 2.22 cmt. d, at 369.

^{85.} The desire for personal autonomy may also be a problem if the noncustodial parent wants to leave the jurisdiction. See, e.g., Commonwealth ex rel. Mickey v. Mickey, 280 A.2d 417 (Pa. Super. Ct. 1971); Thomas v. Thomas, 335 S.W.2d 827 (Tenn. 1960); Fritschler v. Fritschler, 208 N.W.2d 336 (Wis. 1973).

^{86.} Wendy Anton Fitzgerald, Maturity, Difference, and Mystery: Children's Perspectives and the Law, 36 ARIZ. L. REV. 11, 71 (1994).

^{87.} See, e.g., Radford v. Matczuk, 164 A.2d 904 (Md. 1960); Block v. Block, 112 N.W.2d 923 (Wis. 1961); WALLERSTEIN & BLAKESLEE, supra note 68, at 234-40, 302; Czapanskiy, supra note 82, at 636-37; Hetherington et al., supra note 61; Dee Wagner Phelps, Comment, Child Support v. Rights to Visitation: Equity, Economics and the Rights of the Child, 16 STETSON L. REV. 139 (1986); Carolyn Eaton Taylor, Note, Making Parents Behave: The Conditioning of Child Support and Visitation Rights, 84 COLUM. L. REV. 1059 (1984).

^{88.} See, e.g., Brinig & Alexeev, supra note 32, at 290.

^{89.} See, e.g., Bethune v. Bethune, 399 N.Y.S.2d 902 (App. Div. 1977), rev'd, 414 N.Y.S.2d 905 (1979); cf. Oeler by Gross v. Oeler, 594 A.2d 649 (Pa. 1991) (relieving custodial parent of the obligation to support a minor child who unilaterally chooses to reside in her own apartment). "Where a child leaves his parent's house voluntarily . . . to avoid the discipline and restraint so necessary for the due regulation of families, he carries with him no credit; and the parent is under no obligation to pay for his support." Angel v. McLellan, 16 Mass. (1 Tyng) 28, 31 (1819).

^{90.} See Principles of the LAW of Family Dissolution introductory discussion, at 10-11 (Preliminary Draft No. 6, 1996).

hypothesis. These results are consistent with an earlier finding by Maccoby and Mnookin that joint-custody awards are positively and significantly correlated with increased child-support payments.⁹¹

IV. AN EMPIRICAL TEST

This Part discusses the results of empirical tests of the bonding and monitoring hypotheses described in the previous Part. We first examined the determinants of divorce levels, and then the determinants of child-support ratios, using state-level data from 1980 through 1991. A joint-custody variable is a significant and negative predictor of divorce and a significant and positive predictor of support payments. These findings are consistent with the bonding and monitoring theories we describe above.

A. Bonding and Divorce

This Part describes a test of bonding explanations of joint custody. Our dependent variable DIVORCE is the per capita state divorce rate. To examine the effect of state joint-custody laws on DIVORCE levels in State *i*, we estimated the following reduced-form equation:

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ln DIVORCE<sub>ii</sub> = \beta_0 + \beta_1 JOINT<sub>ii-1</sub> + \beta_2 ln UNEMPLOYMENT<sub>ii-1</sub> + \beta_3 ln METRO<sub>ii-1</sub> + \beta_4 ln WORKING WOMEN<sub>ii-1</sub> + \beta_5 ln ENTRY<sub>i</sub> + \beta_6 ln YEAR + e_i
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where the variables are defined as provided in Table II, and where

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In = natural logarithm

\beta_{0...6} = regression coefficients

e = residual

i = 1, 2, ..., 47 index for U.S. states

t = 1, 2, ..., 12 index for years from 1980-91.
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Divorce levels from 1980 through 1991 were regressed on 1979 through 1990 independent variables. Summary statistics are given in Table III. Unless otherwise mentioned, the source for our data is the *Statistical Abstract of the United States*.

All nondummy variables were transformed into their natural logarithmic form, after we determined that this was appropriate through a Box-Cox test on untransformed variables.⁹²

^{91.} See MACCOBY & MNOOKIN, supra note 32, at 275.

^{92.} Our Box-Cox λs for the equations in Tables III and IV were 0.04 for the cross-sectional model. Box-Cox transformations are discussed in GEORGE G. JUDGE ET AL., INTRODUCTION TO THE THEORY AND PRACTICE OF ECONOMETRICS § 12.5, at 555-57 (2d ed. 1988). All statistical analysis was performed using the computer program SHAZAM ©. See Kenneth J. White, SHAZAM: A Comprehensive Computer Program for Regression Models (Version 7), COMPUTATIONAL STAT. & DATA ANALYSIS, Dec. 1992.

TABLE II. DEFINITION OF VARIABLES

Variable Name	Description
DIVORCE	Divorces divided by 1000 population
JOINT	1 = State promotes joint-custody award; 0 otherwise
JOINTCASE	Percent of cases in which joint custody is awarded
UNEM	Average of monthly unemployment figures*100
METRO	Percent of population living in metropolitan areas*100
WORKING WOMEN	Number of women ages 18 and above employed, over the total number of adult women in the population
ENTRY	Year of admittance of state into the Union less 1788 (original states as 1) (excluding Alaska and Hawaii)
YEAR	1980-91 in Table III-V; 1986 to 1994 in Table VII
SUPPORT	Number of cases in which non-AFDC collection was received, divided by number of orders for which non-AFDC support was owed
ADMIN	Total administrative expenses in non-AFDC cases, divided by population .
ADMINEFF	Total child-support dollars collected per administrative dollar expended in collection, non-AFDC cases

SOURCES: Source for JOINT: various state statutes, cross-checked with Marriage and Divorce in the United States, published in the winter issue of the Family Law Quarterly, various years. Source for JOINTCASE: National Center for Disease Control, National Center for Health Statistics, data for 1990 and 1991; more recent data obtained from phone calls to various state agencies. Source for WORKING WOMEN: Department of Labor, Bureau of Labor Statistics, printouts for various years. Source for all other data: Statistical Abstract of the United States (various years).

TABLE III. SUMMARY STATISTICS

Variable Name	Mean	Standard Deviation	Minimum	Maximum
DIVORCE	4.9874	1.2834	2.2	9.1
DIVORCE (Joint- Custody States, N=332)	4.7127	1.1544	2.2000	9.1000
DIVORCE (States Without Joint Custody, N=256)	5.4320	1.3879	2.9000	8.8000
JOINTCASE	0.20216	0.12795	0.041274	0.53509
UNEM t-1	6.8016	2.3134	2.2	18
METRO _{t-1}	62.539	22.464	15	100
WORKING WOMEN	53.675	6.1561	36.6	64.65
SUPPORT	43.289	23.203	1.6453	100.00
ADMIN	20102000	44830000	481.10	39890000
ADMINEFF	2.9190	11.098	.050000	182.00

1. Dependent Variable

Our dependent variable, DIVORCE, represents total state divorces per year divided by state population. This is not the only way to measure divorce levels. Divorces might also be computed per married couple. Per capita divorce rates may be low because marriage rates are low, and not because married people are more faithful or happier in that state. The divorce rate will be zero in a state where no one marries. As a result, we re-estimated divorce levels on a permarried-couple basis. Because these results were very similar to the per capita figures, however, we omit them.⁹³

Divorce rates are far higher in Nevada than in other states.⁹⁴ We therefore excluded Nevada observations from our study. We were left with forty-seven continental U.S. states, over a twelve-year period, for a total of 564 observations.

^{93.} The table is available from the authors. We preferred to estimate per capita divorce levels because we lacked data for the number of married people in each state for all years except the census years of 1980 and 1990. Our estimates of divorce levels per married couple are therefore based on a construct for the intervening years.

^{94.} During the period from 1973 through 1991, Nevada's average annual divorce rate was 15.47 per 1000, about three times higher than the mean of 5.08 when Nevada was excluded. The next highest rate was approximately 8. We also eliminated Alaska and Hawaii data because we employed an ENTRY variable.

2. Independent Variables

Our JOINT predictor is a dummy variable which takes the value of one if the state promotes joint custody on divorce, and zero otherwise. Because we expected lower divorce levels in joint-custody states, our model predicted that the JOINT coefficients would be negative. States were given the value of one whenever their statutes mentioned joint custody as a preference or an alternative, or when language in the statute encouraged each parent to spend significant time with the child. Where the statutory language was ambiguous, or where courts treated it as such, we looked to court decisions in categorizing the states.

The JOINT variable should be seen as a proxy for the actual custody dispositions made at divorce. Ultimately, what counts is the way courts decide custody in a state, and not the statutory regime. For example, a judge in a state which promotes joint custody might decide to award it in only the narrowest of circumstances. Our JOINT variable might thus be prone to Type I errors (with courts frowning on joint custody in the face of a statutory presumption) and Type II errors (with courts promoting joint custody without statutory encouragement).⁹⁵

Because of this, we sought to find out to what extent courts actually awarded joint custody. While such data is hard to come by, we were able to determine the percent of joint-custody awards for nineteen states for various recent years, for a total of sixty-nine observations. ⁹⁶ This variable, JOINTCASE, we employed in Table VI to estimate divorce levels.

UNEMPLOYMENT, the yearly average of monthly unemployment rates,⁹⁷ is our proxy for economic conditions. We would expect to find higher divorce rates after economic downturns,⁹⁸ as economic hardship imposes strains on marriages. A spouse might have to work harder, spending more time away from his family, possibly even migrating to another state. In addition, where the parties have seen their wealth disappear in a severe economic downturn, the financial costs of a

^{95.} We recognize, of course, that most custody decisions are reached by agreement between the parents and merely ratified by the judge presiding over their divorce. Nonetheless, the legal regime in place during the negotiations will have an effect on the parties' expectations during marriage. Additionally, it will set the endpoints for their bargaining on divorce. See generally Mnookin & Kornhauser, supra note 27 (discussing how legal systems affect negotiations outside the courtroom).

^{96.} To reach these numbers we relied upon a May, 1996 release of data prepared and published by the National Center for Health Statistics ("NCHS"), a subdivision of the National Center for Disease Control. The NCHS compiles data from the vital statistics departments of various states.

^{97.} This is the percent of members of the labor force who are actively looking for employment.

^{98.} See Gary S. Becker et al., An Economic Analysis of Marital Instability, 85 J. Pol. ECON. 1141, 1156 (1977) (explaining how greater deviations between actual and expected earnings increase the probability of divorce).

divorce might seem less troubling.⁹⁹ If one has lost nearly everything, there comes a point when there is less need to preserve what one has by staying married.

To reflect differences in social norms, we employed three social predictors: METRO, WORKING WOMEN, and ENTRY. Many more people divorce today than during the Great Depression. Divorce rates would therefore appear more sensitive to social norms than to economic factors. Increased divorce rates over the last thirty years may thus reflect a decline in social stigma, which reduced the cost of what used to be seen as deviant behavior.¹⁰⁰

Urbanization has always been linked with increased divorce rates. ¹⁰¹ Cities offer greater opportunities to stray, and anonymity for transgressors. In cities, moreover, the safety net of community and religion might be weaker than in smaller towns. No doubt, that has always been part of the appeal of cities. METRO is our proxy for urbanization, and represents the percent of the population living in a metropolitan statistical area.

Our WORKING WOMEN variable represents the percent of working-age women with regular labor-force employment.¹⁰² If working wives are more valuable to their husbands, we would expect them to be less likely to divorce.¹⁰³

Regional differences in divorce rates are long-standing.¹⁰⁴ The frontier offered spouses a relatively easy exit option from marriage,¹⁰⁵ and de Toqueville noted the "restless spirit" and "extreme love of independence" of Americans, whose westward migration "broke the ties of attachment." Even today, higher divorce rates in Western states plausibly reflect a more mobile society, with a greater proportion of migrants and weaker ties to the social and family institutions which prop up ailing marriages. Regional differences in divorce rates might also reflect different social sanctions for divorce.

^{99.} See Larry L. Bumpass et al., The Impact of Family Background and Early Marital Factors on Marital Disruption, 12 J. FAM. ISSUES 22 (1991) (reporting a two-thirds greater probability of divorce if the husband was unemployed at any time during the first year of marriage).

^{100.} See Brinig & Buckley, supra note 12. Other studies have linked the no-fault movement to the percent of women in the labor force. See Douglas W. Allen, No-Fault Divorce in Canada: Its Cause and Effect, 36 J. ECON. BEHAV. & ORG. (forthcoming Summer 1998).

^{101.} See RODERICK PHILLIPS, PUTTING ASUNDER 271-72, 376-77 (1988).

^{102.} For these data, we relied upon printouts of relevant statistics annually compiled, prepared, and distributed by the Bureau of Labor Statistics, a subdivision of the U.S. Department of Labor. The percent of adult working women had to be estimated for 1991 and 1992, since the over-18 population was unavailable.

^{103.} See Allen Parkman, Why Are Married Women Working So Hard?, 18 INT'L REV. L. & ECON. (forthcoming Mar. 1998).

^{104.} In 1908 the Labor Department reported that "the divorce rate increases as one goes westward." 1 U.S. DEP'T OF LABOR & COMMERCE, MARRIAGE AND DIVORCE 1867-1906, at 14 (2d ed. 1978). On current regional trends, see Margaret F. Brinig & F.H. Buckley, *The Market for Deadbeats*, 25 J. LEGAL STUD. 201, 217-22 (1996).

^{105.} See PHILLIPS, supra note 101, at 452.

^{106.} ALEXIS DE TOQUEVILLE, DEMOCRACY IN AMERICA 261-62 (J.P. Mayer & Max Lerner eds. & George Lawrence trans., Harper & Row 1966) (1835).

One might seek to capture the frontier effect through regional dummy variables. However, dummy variables do not weigh the frontier effect, as the ENTRY variable does. ENTRY represents the number of years between 1788 and the year the state was admitted to the Union, 107 with generally increasing values as one moves westward.

3. Methodology

Our model estimates average filing rates at the state level through state-level time-series cross-sectional ("TSCS") data. While divorce is an individual decision, divorce levels also respond to societal pressures, and societies have their own character, for better or worse.

The use of TSCS data heightens concerns about idiosyncratic state factors not captured by the other variables. Because of this, we employed a fixed-effects model, with a separate intercept ν_i for each state, ¹⁰⁸ as well as a cross-sectioned model without separate state dummy variables.

We first estimated divorce levels through an Ordinary Least Squares ("OLS") regression which employed a lagged dependent variable. However, a Lagrange multiplier test revealed a substantial serial correlation problem. In theory, one might address this through instrumental variables, but in practice it is difficult to find instruments which are well correlated with the dependent variable and are uncorrelated with the errors. Because of this, we employed the Kmenta cross-sectionally heteroskedastistic and timewise autocorrelated ("CHTA") model with fixed-state effects.¹⁰⁹

The CHTA model assumes cross-sectional independence and β coefficients which do not vary between cross-sections. However, we adjusted for cross-sectional differences through our fixed-state-effects model, and through the state-specific generalized least-squares technique of the CHTA model. Under a CHTA regression, the equation is first estimated by OLS. Next, the OLS residuals are used to estimate a separate coefficient of autocorrelation ρ_i (bounded by -1 and +1) for each state i. The ρ_i 's are then used to transform the observations to produce a serially independent and homoskedastistic error term.

$$y_{ii} = \rho_i X_{ii} \beta + v_i + e_{ii}$$

Finally, the equation is estimated by the OLS method.

We suggest above that our WORKING WOMEN variable is a useful predictor of divorce rates, with husbands less likely to divorce working wives who are

^{107.} The ENTRY variable took the value of one for each of the original 13 states. A comparable entry variable was used to predict state economic growth in MANCUR OLSON, THE RISE AND DECLINE OF NATIONS 100 (1982).

^{108.} See generally JUDGE ET AL., supra note 92, § 11.4, at 468-79 (discussing pooling time-series and cross-sectional data using dummy variables). On the need to employ a fixed-state-effect model for time-series, cross-sectional data, see Gary S. Becker, Comments on Danzon, Maki, Murray, and Allen, 11 J. LAB. ECON. S326 (1993).

^{109.} On CHTA estimation, see JAN KMENTA, ELEMENTS OF ECONOMETRICS 618-22 (2d ed. 1986).

contributing substantially to household income. However, causation may work the other way. When divorce is more likely, the insurance function of marriage is weakened, and wives have greater reason to seek remunerative employment. Turther, after divorce many homemakers enter the labor force. The variable may thus be regarded as endogenous, and we therefore estimated divorce rates through a Two-Stage Least Squares ("2SLS") procedure in which divorce and WORKING WOMEN rates are jointly estimated.

4. Results

Our results are reported in Tables IV-VI. Our principal result is that divorce levels are negatively and significantly correlated throughout with joint-custody laws. These results are consistent with the hypothesis that joint-custody laws reduce divorce levels.

Table IV reports on a regression of DIVORCE rates on legal, economic, and social state-level variables. Specifications one and two employ a CHTA model, while specifications three and four employ a 2SLS model in which the WORKING WOMEN variable is treated as endogenous. In specifications one and three we report on a fixed-effects model, and in specifications two and four we report on a cross-sectioned model. A Hausman test permits us to reject the null hypothesis that fixed-state effects are independent of the explanatory variables in the cross-sectioned specifications, suggesting that the equation is more properly modeled with fixed effects.

^{110.} See Parkman, supra note 103.

^{111.} The exogenous variables included UNEM and CONAD, the per capita value of construction starts, adjusted for inflation.

TABLE IV. THE DETERMINANTS OF DIVORCE

Dependent Variable: DIVORCE

Legal Variable: JOINT

Kmenta Pooling and 2SLS Estimations

,	Kmenta Pooling Fixed Effects	Kmenta Pooling Cross- sectioned	2SLS Fixed Effects	2SLS Cross- sectioned
JOINT _{t-1}	-0.036257 (-2.780)**	-0.043044 (-4.657)**	-0.034085 (-2.593)**	-0.11674 (-5.351)**
ln UNEM _{t-1}	-0.051505 (-4.020)**	-0.022952 (-2.217)**		
ln METRO _{t-1}	-0.0I4873 (-0.2897)	-0.030602 (-1.953)**	0.0064090 (0.1244)	-0.025098 (-1.076)
ln WORKING WOMEN _{t-1}	0.48243 (7.720)**	-0.040438 (-0.6848)	0.41867 (6.868)**	0.39147 (0.9317)
ln ENTRY _{t-1}	0.023961 (0.5226)	0.063464 (12.27)**	0.038263 (0.8300)	0.058235 (9.977)**
ln YEAR _{t-1}		-0.020202 (-1.856)*	-0.096459 (-11.49)**	-0.069658 (-1.284)
CONSTANT		1.7846 (7.828)**		0.13575 (0.08496)
Standard Error	0.080591	0.64472	0.081286	0.23042
SSE	3.3189	231.53	3.3830	29.627
Buse R ²	0.9043	0.2974		
R ² (adj.)			0.9027	0.2178

NOTES: Number = 564. In the 2SLS estimations, WORKING WOMEN is treated as an endogenous variable, and UNEM, CONSTRUCT, and state dummy variables are employed as exogenous variables. T-statistics are denoted with a ** if significantly different from zero at the .05 level (two-tailed test), and with a * at the .1 level.

TABLE V. THE DETERMINANTS OF DIVORCE

Dependent Variable: DIVORCE

Legal Variable: JOINT Sensitivity Tests

	OLS Fixed Effects	OLS Cross-sectioned	Least Absolute Errors Cross-sectioned
JOINT t-1	-0.032022 (-2.481)**	-0.10844 (-5.238)**	-0.12299 (-5.081)**
In UNEM t-1	-0.044087 (-3.502)**	0.044967 (1.478)	0.074086 (2.083)**
In METRO _{t-1}	0.076273 (I.662)	-0.030629 (-1.354)	-0.060884 (-2.302)**
In WORKING WOMEN 1-1	0.33991 (6.611)**	-0.26394 (-2.078)**	0.034196 (0.2302)
In ENTRY	0.069112 (1.565)	0.052973 (9.723)**	.069926 (10.97)**
ln YEAR	-0.092031 (-11.69)**	0.014620 (0.7000)	-0.020162 (-0.8255)
CONSTANT		2.5501 (5.024)**	1.4701 (2.477)**
Standard Error	0.79992E-01	0.22359	0.26147
SSE	3.2698	27.846	29.206
R ² (adj.)	0.9057	0.2635	0.2623
B-P-G χ²	171.219	15.183	
$LM \chi^2$	195.342	1355.187	

NOTES: Number = 564. T-statistics are denoted with a ** if significantly different from zero at the .05 level (two-tailed test), and with a * at the .1 level.

TABLE VI. THE DETERMINANTS OF DIVORCE

Dependent Variable: DIVORCE Legal Variable: JOINTCASE

2SLS Estimation

	2SLS Fixed Effects
JOINTCASE t-1	-1.8800 (-2.216)**
METRO _{t-1}	-0.73940E-02 (-2.427)**
WORKING WOMEN _{t-1}	-0.080002 (-2.596)**
ENTRY	0.88060E-02 (3.737)**
YEAR	0.50361E-02 (5.447)**
Standard Error	0.8065
SSE	44.88
R ² (adj.)	0.3331

NOTES: Number = 69. WORKING WOMEN is treated as an endogenous variable, and UNEM, CONSTRUCT, and state dummy variables are employed as exogenous variables. T-statistics are denoted with a ** if significantly different from zero at the .05 level (two-tailed test), and with a * at the .1 level.

The JOINT coefficient is significant and negative in all Table IV specifications, and also in Table V's sensitivity tests. A change to joint-custody laws is associated with a two- to eleven-percent reduction in divorce levels. This is a small but substantial gain; a larger one would have been suspicious.

Table VI reports on an estimation of divorce levels in which we substitute the JOINTCASE predictor for the JOINT dummy variable. When the legal variable measures actual case dispositions, with a limited number of observations, we still found that the legal coefficient is negative and significant.¹¹²

B. Monitoring and Child Support

In the regressions reported in Table VII, we tested the monitoring hypothesis that the move to joint custody will be associated with higher child-support payments. Our dependent variable, SUPPORT, measures the extent to which child-support payments are made, and is defined as the number of orders for current support where a collection was received divided by the number of orders

^{112.} We also regressed child-abuse and child-support enforcement figures on the independent variables of our model. In neither case was the joint-custody coefficient significant, though the signs were as our bonding theory would have predicted.

for current support where a collection was due. 113 We chose this measure rather than one keyed to actual collections for two reasons. First, many support payments are made voluntarily, and thus never show up in actual collections data. We would be undercounting support payments, with no way to know whether the tendency to pay voluntarily varies uniformly among states. Second, monetary sums do not account for differences in the cost of living among states.

1. Model

We estimated SUPPORT levels through an equation of the form:

```
SUPPORT<sub>ii</sub> = \beta_0 + \beta_1 JOINT<sub>ii-1</sub> + \beta_2 UNEMPLOYMENT<sub>ii-1</sub> + \beta_3 WORKING WOMEN<sub>ii-1</sub> + \beta_4 ENTRY<sub>i</sub> + \beta_5 ADMIN<sub>ii-1</sub> + \beta_6 ADMINEFF<sub>ii-1</sub> + e_i
```

where the variables are defined as provided in Table II, and where

```
\beta_{0...6}
 = Regression coefficients

e
 = Residual

i
 = 1, 2, ..., 47 index for continental U.S. states

i
 = 1, 2, ..., 9 index for years from 1986-94.
```

We employed two new independent variables to measure the extent to which states enforced support obligations and penalized deadbeats. When states do not fund child-support enforcement agencies, less support is collected, regardless of individual parental preferences.¹¹⁴ Our ADMIN variable represents the state's total per capita expenditures for non-AFDC cases for each year.¹¹⁵ It is not enough to look at welfare budgets, however, as welfare spending might wastefully fund a bloated bureaucracy.¹¹⁶ We therefore employed an ADMINEFF predictor to measure the efficiency of welfare bureaucracies. ADMINEFF is

^{113.} This data is collected annually by the Department of Health and Human Services, Office of Child Support Enforcement. For example, in 1992, these amounts were reflected in Tables 74 and 75. See OFFICE OF CHILD SUPPORT ENFORCEMENT, DEPARTMENT OF HEALTH & HUMAN SERVS., 17TH ANNUAL REPORT TO CONGRESS 141-42 (1992). In each year, the non-AFDC numbers were used.

^{114.} This is well documented by a classic study. See DAVID L. CHAMBERS, MAKING FATHERS PAY 71-162 (1979).

^{115.} See OFFICE OF CHILD SUPPORT ENFORCEMENT, DEPARTMENT OF HEALTH & HUMAN SERVS., ANNUAL REPORT TO CONGRESS (various years). For fiscal year 1992, we used Table 26. In AFDC cases, the state is the moving party because it has already provided welfare for the child. The noncustodial parent who is ordered to pay support knows that, if he complies, the child will not receive the money.

^{116.} For example, in 1992, Michigan was able to collect \$6.53 for every administrative dollar in non-AFDC cases. On the other hand, Rhode Island only collected \$1.06 during the same year. See OFFICE OF CHILD SUPPORT ENFORCEMENT, supra note 113, at 76.

defined as child-support collections per dollar of total administrative expenditures.¹¹⁷

Our SUPPORT data was taken from 1986 through 1994, with our independent variables spanning 1985 through 1993. Because of missing child-support data, we were left with 267 observations. Since we had an uneven number of observations in each state, we were unable to use Kmenta pooling, as we had in our previous tables. This explains why we employed an OLS estimation technique. Differences in the data set also explain why we were unable to employ our JOINTCASE predictor in Table VII. A Box-Cox estimate of SUPPORT suggested that the data should not be transformed into logarithmic form. 118

TABLE VII. THE DETERMINANTS OF SUPPORT

Dependent Variable: SUPPORT

Legal Variable: JOINT OLS and 2SLS Estimations

	OLS Fixed Effects	OLS Cross- sectioned	2SLS Fixed Effects	2SLS Cross- sectioned
JOINT t-1	10.37I (2.096)**	0.64344 (0.2016)	9.9555 (3.722)**	I.1298 (0.3520)
UNEM t-1	0.99324 (I.248)	-0.83042 (-1.111)		
WORKING WOMEN _{t-1}	0.46764 (8.257)**	0.40270 (7.347)**	0.63785 (I3.87)**	0.48565 (7.826)**
ENTRY t-1	0.0I4154 (0.1565)	-0.019122 (-0.6731)	0.028688 (1.028)	-0.019244 (-0.6748)
ADMIN	1.5882 (5.176)**	1.5351 (5.454)**	2.197I (7.998)**	1.7228 (5.918)**
ADMINEFF	-0.026435 (-0.1877)	-0.0096842 (-0.08196)	0.000076473 (0.0006177)	-0.028759 (-0.2435)
CONSTANT		27.970 (4.371)**		18.636 (4.176)**
Standard Error	21.757	21.127	22.272	21.224
SSE	102720	116060	129960	117570
R ² (adj.)	0.1207	0.1709	0.0786	0.1633

^{117.} This is for non-AFDC cases only. See sources cited supra note 115. For fiscal year 1992, we used Table 9. See Office of CHILD SUPPORT ENFORCEMENT, supra note 113, at tbl.9. 118. The Box-Cox λ was 0.69. See generally JUDGE ET AL., supra note 92.

NOTES: Number = 267. In the 2SLS estimations, WORKING WOMEN is treated as an endogenous variable, and METRO, UNEM, CONSRUCT, and state dummy variables are employed as exogenous variables. T-statistics are denoted with a ** if significantly different from zero at the .05 level (two-tailed test), and with a * at the .1 level.

Once again, we treat WORKING WOMEN as an endogenous variable in Table VII's 2SLS estimation. If less child support is paid, more women will seek outside jobs. At the same time, labor-force participation might increase the ability of women to pursue deadbeat noncustodial fathers. Working women are also less likely to be relying on public assistance, with its incentives against collection.

2. Results

Our results are reported in Table VII. The JOINT coefficient is positive in all specifications, and is significant in the crucial fixed-effects equations. A Hausman test indicates that the equation is better specified as a fixed-effects model, and our results therefore support the monitoring hypothesis of joint custody.

Unsurprisingly, the ADMIN coefficient was consistently positive and significant, as was the WORKING WOMEN coefficient.

V. CONCLUSION

This Article suggests two ways in which a joint-custody regime might help children. Under bonding theories, a spouse who would expect to lose custody under a sole-custody regime has greater incentives to bond with his family under joint custody. With greater family bonding, the likelihood of a divorce declines. This would greatly benefit children, for whom a divorce is devastating. Under monitoring theories, joint custody usefully polices the agency costs of misbehavior by a spouse who has been granted sole custody. The noncustodial spouse has thus a greater incentive to support his child on a move to joint custody.

We tested the bonding and monitoring hypotheses through an econometric analysis of the determinants of divorce. A joint-custody dummy variable was significantly and negatively correlated with divorce rates. So too was a variable based on the percent of joint-custody awards with a smaller number of observations. These results are consistent with the bonding explanation of joint custody. Our joint-custody dummy variable was also significantly and positively correlated with child-support ratios, as predicted by monitoring theories.

This is not to say that joint-custody awards are always appropriate. Awarding joint custody to a violent and abusive parent may harm children, and sole custody is obviously preferable in such cases. In addition, it is possible that some women might prefer to remain in abusive marriages rather than assume the risk of joint custody. Alternatively, they might trade off material assets against custody at property settlement. This suggests a need for more research on child abuse and wealth transfers on a move to joint custody.

APPENDIX

The following models the welfare effects of a change in legal regime from sole maternal to joint custody. For the purpose of the model, we make certain simplifying assumptions.

We assume that marriage rates are exogenously determined, and do not depend on the specification of custody rights at law. Custody laws are of two kinds only. Under sole custody, full custody and responsibility for the child is awarded solely to the wife, unless the parties bargain for joint custody at the time of divorce; under joint custody, physical care of and responsibility for the children is shared. The spouses might have different preferences as to custody, and their preferences might not correspond to the legal regime. At marriage, therefore, they might seek to enter into private agreements as to custody. We assume that these bargains are costlessly written and legally enforceable at divorce.

The parties have full and costless information about asset values, probabilities as to the occurrence of events, and each other's preferences, and form unbiased estimates of expected values. They are both risk neutral. At marriage, all of their assets become jointly owned, and continue to be so until divorce. Asset-transfer agreements between the parties during marriage are unenforceable, and the parties lack access to credit markets.

The parties marry at time t_0 . In the next period, at time t_1 , they must decide whether they will divorce, and if so whether they will enter into a private custody agreement.

I. BARGAINING OVER CUSTODY IN A SOLE MATERNAL-CUSTODY REGIME

We first assume that the legal regime is one of sole custody and examine the gains from private agreements at t₁ to elect joint custody.

Let

- K_{H,1} = Psychic costs born by husband on the loss of his children under sole maternal custody, less the psychic costs he would bear under joint custody
- K_{w,1} = Psychic costs born by wife on the loss of her children under joint custody, less the psychic costs she would bear under sole maternal custody
- JC_1 = Price the parties will agree to in a private agreement to opt from sole maternal to joint custody, $(K_{H,1} \ge JC_1 \ge K_{W,1})$
- A_{H,1} = Husband's assets immediately after divorce but before side bargains for custody rights.

Under sole maternal custody, a joint-custody agreement provides the husband with a gain of $K_{H,1}$ - JC_1 and the wife a gain of JC_1 - $K_{W,1}$, and such agreement will be reached provided that (1) $A_{H,1} \ge JC_1$, and (2) $K_{H,1}$ - $K_{W,1} \ge 0$.

We next examine the custody bargain from the perspective of the parties at marriage. Define $K_{H,0}$, $K_{W,0}$ JC_0 , and $A_{H,0}$ as the expected values of $K_{H,1}$, $K_{W,0}$ JC_1 , and $A_{H,1}$, respectively, at t_0 . Let

 $P_{D,SC,0}$ = Probability of divorce at t_0 under presumptive sole custody on the assumption that the parties will enter into all privately optimal custody bargains at t_1

 $P_{H,0}$ = Probability at t_0 that $A_{H,1} \ge JC_1$.

At t₀ under presumptive sole custody, the expected value to the husband of the custody agreement is

$$P_{D.SC.0}P_{H.0}(K_{H.0}-JC_0).$$

For the wife, the expected value of the custody agreement is

$$P_{D.SC.0}P_{H.0}(JC_0-K_{W.0}).$$

II. EFFECT OF A SHIFT TO A JOINT-CUSTODY LEGAL REGIME

Assume next that the custody law changes from presumptive sole to presumptive joint custody. In this Part we consider the wealth effects of the change, on the assumption that the probability of divorce is unaffected by the shift in the presumptive legal rule. In the next Part we abandon this assumption. Let

 SC_1 = Price the parties will agree to in an agreement to elect from joint to sole maternal custody, $(K_{W,1} \ge SC_1 \ge K_{H,1})$

 $A_{w,1}$ = Wife's assets immediately after divorce but before side bargains for custody rights.

The wife's loss from the move to the new legal regime is her foregone loss of the gains from the joint-custody bargain ($JC_1 - K_{W,1}$) plus the personal cost of lost custody. This is $K_{W,1}$, without a side bargain for sole maternal custody. With the side bargain, her loss cannot exceed SC_1 .

Define SC_0 and $A_{w,0}$ as the expected values of SC_1 and $A_{w,1}$, respectively, at t_0 ; and define

$$P_{W,0}$$
 = Probability at t_0 that $A_{W,1} \ge SC_1$.

At t_0 , the wife's loss on the change to a presumptive joint-custody legal regime is

$$P_{D.SC.0}[(1 - P_{W.0})K_{W.0} + P_{W.0}SC_0 + P_{H.0}(JC_0 - K_{W.0})].$$

For the husband, the gain from the move to the new legal regime is the gain in custody rights plus the gain from the sole-custody bargain. At t_0 , this is

$$P_{D.SC.0}[(1 - P_{H.0})K_{H.0} + P_{H.0}JC_0 + P_{W.0}(SC_0 - K_{H.0})].$$

Define

$$L_{W,0} = (1 - P_{W,0})K_{W,0} + P_{W,0}SC_0 + P_{H,0}(JC_0 - K_{W,0}).$$

and

$$G_{H,0} = (1 - P_{H,0})K_{H,0} + P_{H,0}JC_0 + P_{W,0}(SC_0 - K_{H,0}).$$

The move from sole to joint custody will then be efficient, provided that $G_{H,0} > L_{W,0}$, as it will be if $K_{H,0} > K_{W,0}$.

III. SELF-BINDING GAINS

Under free bargaining, who gets custody will depend on the valuation the two parties place on sole and joint custody. The locus of custody may also depend on wealth endowments. Assume that $K_{H,1} > K_{W,1}$, so that joint custody is privately optimal. Under sole custody, however, the parties may be unable to reach an agreement to elect joint custody because $JC_1 \ge A_{H,1}$, with a probability of $(1 - P_{H,0})$.

The change from sole to joint custody will therefore increase the probability that the husband will get joint custody. Suppose further that divorces are initiated only by men, and that on marriage they would wish to bind themselves to their spouses by waiving divorce rights were such waivers enforceable. As waivers are not enforceable, however, the husband may seek other ways to bind himself to the marriage.

Assume that at time t_0 the husband expects that at t_1 he will seek a divorce if either event A or event D has occurred. As to event A his preferences are time consistent, but not as to event D. That is, at t_0 he would wish to be divorced if event A subsequently occurs; however, at t_0 he would wish to waive the right to a divorce if event D occurs.

Divorce rights cannot be waived. However, the husband can reduce the probability that he will seek a divorce at t_1 through self-binding strategies employed at t_0 . Spending more time with his child before divorce might be one such self-binding strategy. We assume that at t_0 the husband expects to employ all such self-binding strategies, and that he still expects that he will want a divorce at t_1 if D has occurred. With the further promise of joint custody, however, the husband will not seek a divorce t_1 if D has occurred. He will bond more closely with his children, since the emotional cost of the divorce will be lessened. Not only will the husband be more reluctant to seek a divorce at t_1 , he will also avoid those occasions prior to t_1 which might take him down the road

to a subsequent divorce. Temptations to stray will be less tempting. As a result, the probability of divorce will fall from $P_{D,SC}$ to $P_{D,JC}$.

It will then be seen that the move from sole to joint custody might be value-increasing for the wife as well as the husband. The wife's loss on the change to a presumptive joint-custody legal regime is $P_{D,SC,0}L_{W,0}$. However, these losses might now be exceeded by the gains associated with a reduction in the probability of divorce from $P_{D,SC,0}$ to $P_{D,JC,0}$. Define $C_{W,0}$ as the expected value of the emotional and financial costs to the wife of a divorce, excluding $K_{W,0}$. For the wife, then, the move to joint custody will result in gains of

$$(P_{D,SC,0} - P_{D,JC,0})(C_{W,0} + L_{W,0}).$$

Where either the difference between $P_{D,SC,0}$ and $P_{D,JC,0}$ is large, or where $C_{W,0}$ is large relative to $L_{W,0}$, the move to joint custody might leave everyone better off. To see this, assume the following values:

$$P_{D,SC,0} 0.5 \qquad L_{W,0} 10$$

The move to joint custody will impose the costs of $L_{w,0}$ or 10. But the reduction in the probability of divorce will result in gains of 22, for a net gain to the wife of 12.