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Marriage and Divorce: Comment

By DOUGLAS W. ALLEN*

In an article of this *Review* H. Elizabeth Peters (1986) finds that changes in state divorce laws had no impact on divorce rates across states. More specifically, she claims that the switch from fault divorce to no-fault divorce made no measurable difference in the divorce rate.¹ Further, Peters finds that divorce settlements for women in no-fault states are lower than in fault-based states. Both pieces of evidence are taken as consistent with the Coase theorem (Ronald Coase, 1960): a change in property rights does not change resource allocation but influences the distribution of wealth. Peters concludes that transaction costs are unimportant for the study of marriage.

Initially, I attempted to replicate Peters's empirical results on the divorce rate because my own work (Allen, 1988, 1990) suggested that transaction costs in marriage are positive and because I believed she had misclassified one group of states as fault-based when, in fact, they may be considered no-fault. Although I had the same data source, I was unable to replicate her sample or results; in fact, I always found the opposite: no-fault states have higher divorce rates. I contacted Peters, and she was kind enough to give me her final data sample and to provide access to some, but not all, of her procedures.² After examining Peters's sam-

ple I have concluded that her findings are too sensitive to draw any strong conclusion. What evidence there is seems to support the conclusion that no-fault states have higher divorce rates than fault states. Regarding the test that initially motivated this replication—namely, to reclassify a set of states that only allow separation as a ground for divorce—it turns out the results are again inconclusive. I conclude the paper by noting that this type of experiment violates the conditions for the Coase theorem anyway and that the other tests Peters reports actually support the proposition that transaction costs matter for marriage.

I. Replicating Peters's Divorce-Rate Experiment

As mentioned, Peters (1986) tests the joint hypothesis that transaction costs are zero (low) and that the Coase theorem holds in reality. Her tests concentrate on the impact of no-fault divorce laws on property settlements and divorce rates. The switch from fault to no-fault divorce laws is viewed as a change in the allocation of property rights over who has the decision to terminate the marriage. Peters predicts no change in the divorce rate because marriages only end when it is efficient, and this depends on alternatives—not the law. Under fault law, the spouse most wanting to leave the relationship must purchase the right to leave. With no-fault law, the spouse least wanting to divorce must pay the other to stay. Failure to reach an agreement in the former case implies that the total value of the marriage is greater than the value of a separa-

*Simon Fraser University. I am grateful for the comments of Yoram Barzel, Steve Ferris, Dean Lueck, Dennis Maki, and Clyde Reed. Also, I thank H. Elizabeth Peters for sharing her data and available procedures. Any remaining errors, of course, are my own.

¹This result grinds against casual empiricism. Consider the following remark by Lloyd Cohen (1987 p. 275):

Divorce is now generally available on a no-fault basis. In most jurisdictions, either party may petition for divorce on the grounds of marital breakdown. As consequence, the divorce rate has skyrocketed.

²History, like data, sometimes requires cleaning. The actual account of how the regressions reported

here came to be is quite messy and better left unsaid (see William G. Dewald et al. [1986] for the general idea). In an effort to hold as many things constant as possible, I decided not to use my own sample, but rather to use Peters's sample.

tion, and vice versa for the latter case. Thus, Peters argues, the divorce rate will be unrelated to the grounds for divorce because inefficient marriages are distributed independently of the law. However, since the direction of payment depends on the distribution of rights, Peters predicts that women generally fare worse under no-fault laws.

Peters finds that the divorce rate is unaffected by legal change. States that allow either partner to walk away from the marriage have the same divorce rate as states where both parties have to agree to end the marriage. Indeed, she also finds that divorce settlements are lower for women in no-fault states. She concludes that these results are consistent with the Coase theorem: the allocation of resources is independent of the distribution of rights, although income distribution is not.

A. States In Transition

The data used by Peters is a special 1979 Bureau of Labor Statistics Survey that matched with the March/April 1979 Current Population Survey (CPS). This survey collects information on divorce, property settlements, and other demographic variables. What makes these data so useful (aside from containing the relevant variables) is the date when they were collected. The switch to no-fault divorce started in 1970 with California and ended in 1985 with South Dakota. The CPS data allow Peters to examine the divorce rate between 1975 and 1978, right in the middle of the transition. Thus, there are fairly equal numbers of no-fault and fault states. The first problem with Peters's results, however, stems from the treatment of the states that switched laws *during* the 1975–1978 period.³

Although seven states were in transition during 1975–1978, three states required agreement on property settlements and so remained fault states in spirit. Montana changed so early in 1975 that all divorces

within the sample took place after the change, and so there is no problem in coding it as a no-fault state. The problem arises with the three remaining states (Massachusetts, Rhode Island, and Wyoming), because some divorces within the sample took place before and some took place after the change in law. Peters is very careful to account for the correct law for divorced women. However, she unavoidably misclassifies those women who remain married.

Consider the case of Wyoming, which became a no-fault-divorce state in 1977. In Peters's sample taken from the CPS, there are 195 women from Wyoming, 11 of whom divorced, all prior to 1977. One way to picture what Peters has done with Wyoming is to imagine that she creates two states: Wyoming-1 has a fault law; Wyoming-2 has a no-fault law. Since all of the divorces occurred before 1977, all of the divorce observations are in Wyoming-1, the fault state; but what should be done about the 184 women who did not divorce? They existed throughout the entire time period, but to put them in both states would be double-counting. Since Wyoming was a fault state for most of the period the nondivorced women could arguably be put in Wyoming-1 along with the divorced women. Another option would be to put them in Wyoming-2. Peters chose to do the latter.

The result of this assignment is to raise the divorce rate for the fault states (Wyoming-1 has a 100-percent divorce rate) and to lower it for the no-fault states (Wyoming-2 has a 0-percent divorce rate). Given the variables defined in Table 1, Table 2 shows a cross-tabulation of divorce by no-fault for the three states in question, along with the same cross-tabulation for Iowa, a state that was not in a legal transition. For the purpose of Peters's test, a state should be classified as either fault or no-fault; that is, each state should have a cross-tabulation with a row of zeros, like Iowa. By keeping the three transition states in the sample, the married women must be arbitrarily assigned as living in either a fault or a no-fault state.

Table 3 reports sample means with and without Massachusetts, Rhode Island, and Wyoming. Table 4 reveals the effects of

³Information regarding state marriage laws is taken from Doris Freed and Henry Foster (1977, 1979) and Harvey Sepler (1981).

TABLE 1—DEFINITIONS OF VARIABLES

Variable	Definition
Divorce (dependent variable)	1 if woman divorced between 1975–78
Age	age of woman in 1979
Education	the number of years attended school as of 1979
White	1 if the woman was white
Kids < 18	the number of children younger than 18 within the household as of 1979
Kids squared	Kids < 18 × kids < 18
SMSA	1 if the woman lived in a standard metropolitan statistical area in 1979
South	1 if household was located in southern United States
West	1 if household was located in western United States
North Central	1 if household was located in north-central United States
No-fault-1	1 if the state has a no-fault divorce law (Peters's classification)
No-fault-2	1 if the state has a no-fault divorce law (some separation states coded no-fault)

TABLE 2—CROSS TABULATIONS: DIVORCE BY NO-FAULT

Divorce	Wyoming		Rhode Island		Massachusetts		Iowa	
	Married	Divorced	Married	Divorced	Married	Divorced	Married	Divorced
Fault	0	11	0	6	0	6	0	0
No-fault	184	0	162	2	530	15	405	14

Sources: Personal correspondence with Peters and the CPS March/April 1979 match file.

TABLE 3—SAMPLE MEANS

Variable	Mean	
	Peters	Allen
Divorce (percentage)	5.78	5.82
Age	43.6	43.6
Education	12.8	12.8
SMSA (percentage)	54.5	54.4
White (percentage)	90.6	90.4
Kids < 18	1.0	1.0
Sample size:	21,214	20,298

Notes: Peters's sample includes all 50 states; my sample omits Massachusetts, Rhode Island, and Wyoming. Sources: Peters (1986), personal correspondence with Peters, and the CPS March/April 1979 match file.

including these three states by replicating the regression performed by Peters (1986).⁴

⁴I replicate regression B (Peter's table 5) only for historical reasons. In the early days of this project when I was working with the original data tape, the data for the percentage of Catholics in the state and the state's 1970 divorce rate were unavailable. Although I now have them, inertia and irrelevancy prevent me from including these data here.

The dependent variable is the probability of becoming divorced during 1975–1978 given no previous divorces. The Peters-1 column reproduces Peters (1986) logit results.⁵ The Allen-1 regression uses her data set, with the *only* difference being that the three states in question have been removed from the sample.

The result of this one change is dramatic, considering that these states make up only 4 percent of the sample. In the original regression, the no-fault-1 coefficient is almost zero and has a chi-square statistic equal to zero. By excluding the three states, the coefficient for no-fault-2 becomes positive and significant at the 10-percent level. The larger coefficient for no-fault-2 provides further evidence that a classification error was made. When an independent variable contains measurement errors, the coefficient is biased toward zero. By correcting the error

⁵Using the data sent to me by Peters, I am able to replicate this equation exactly.

TABLE 4—IMPACT OF NO-FAULT DIVORCE ON DIVORCE RATES:
DEPENDENT VARIABLE = PROBABILITY OF DIVORCE

Variable	Peters-1	Allen-1	Allen-2	Allen-3	Allen-4
Constant	-2.81 (2.21) ^a	-3.37 (6.64) ^a	-2.00 (2.65)	-3.40 (6.71) ^a	-2.23 (3.20) ^a
Age	-0.26 (405.05) ^a	-0.26 (389.6) ^a	-0.26 (397.6) ^a	-0.26 (388.9) ^a	-0.26 (395.6) ^a
Education	-0.19 (8.95) ^a	-0.16 (5.90) ^a	-0.16 (5.57) ^a	-0.15 (5.95) ^a	-0.15 (5.52) ^a
White	-0.33 (0.37)	-0.31 (0.31)	-0.41 (0.54)	-0.29 (0.28)	-0.35 (0.41)
Kids < 18	-1.55 (21.33) ^a	-1.51 (19.09) ^a	-1.53 (19.71) ^a	-1.51 (18.92) ^a	-1.52 (19.37) ^a
Kids squared	0.07 (0.56)	0.05 (0.32)	0.06 (0.39)	0.05 (0.30)	0.05 (0.36)
SMSA	0.56 (2.87) ^a	0.57 (2.83) ^a	0.43 (1.69)	0.60 (3.09) ^a	0.54 (2.52)
South	1.81 (12.47) ^a	1.59 (8.25) ^a		1.57 (7.50) ^a	
West	3.12 (30.21) ^a	2.67 (18.36) ^a		2.77 (19.07) ^a	
North Central	1.91 (13.86) ^a	1.68 (9.17) ^a		1.74 (10.05) ^a	
No-fault-1	0.01 (0.00)	0.63 (2.65) ^a	1.42 (17.64) ^a		
No-fault-2				0.49 (1.38)	1.37 (14.82) ^a
Sample size:	21,214	20,298	20,298	20,298	20,298

Notes: Chi-square statistics are in parentheses for all regressions. Coefficients are $\partial(\text{percentage})/\partial X = \beta[\bar{P}(1 - \bar{P})] \times 100$ from the logit $P = 1/(1 + e^{-X\beta})$.

Sources: CPS March/April 1979 match file and Peters (1986 table 5 [Column B]).

^aStatistically significant at the 10-percent level.

in the data, effects can be detected that were hidden by the measurement error.

B. Removing the Regional Dummies

It is reasonable to assume in a general model of divorce that age, education, and children should play a role. However, it seems difficult to justify the use of regional dummies here. The laws comprise a major difference among regions, yet the difference in divorce law is being directly accounted

for by the no-fault variable. With the exceptions of Utah and South Dakota, all of the fault states either border on the Mississippi or lie east of it. Hence, there is a large degree of correlation between the North Central dummy and the no-fault variable. Regression Allen-2 shows the result of dropping the regional dummies along with the three states mentioned earlier. Rather than a low coefficient and a zero chi-square, the removal of the regional dummies leads to a coefficient of 1.42 (second in size only

to that for the presence of children) with a chi-square statistic of 17.64. Even if one objects to removing these variables, one cannot help but be struck by the difference it makes for the no-fault dummy.

C. Changing Some State Classifications

As mentioned, my initial grounds for replication was a belief that some states had been misclassified as fault states. *Separation states* comprise one class of no-fault states in which couples need only be separated for a given period of time before a divorce is granted. Separation states are legally defined as no-fault states, and in many cases they may be considered no-fault states in an economic sense as well. However, not all separation states are the same. Some require the separation to be mutually agreed upon, which in effect maintains a fault nature to the divorce law.⁶ The Allen-3 logit regression in Table 4 shows the results of reclassifying separation states that are unambiguously no-fault. Ironically, the results are closer to Peters's original findings (i.e., the no-fault variable is insignificant), although the Allen-4 regression shows that this result also depends on the inclusion of regional dummies, since their removal leads to a large and significant coefficient.⁷

II. The Coase Theorem

Peters derived her results using the Coase theorem, implicitly assuming zero transaction costs. According to Peters, divorces only occur when one party cannot compensate the other to stay or to leave,⁸ the direction of compensation depending on whether a state has a fault or no-fault divorce law. In a world of zero transaction costs, this would be the case. We live in no such world,

⁶Arkansas, Louisiana, South Carolina, Utah, Vermont, and Virginia are separation states that may be considered no-fault states.

⁷However, using my own sample in my original replication, the effect of the no-fault dummy was positive and significant (see Allen, 1988).

⁸In that the net gain from marriage is negative.

however, and as a result, property-right allocations are not neutral.

A great deal of confusion exists concerning the Coase theorem, due perhaps to the absence of a definition by Coase, but more likely to the poor understanding of the necessary conditions for zero transactions costs. The correct way to pose Peters's problem is to imagine two worlds, both with zero transaction costs, but one with no-fault divorce and the other with fault divorce. Consistent with Coase, the divorce rate between the two worlds should be the same. Unlike the situation examined here, in Coase's farmer and rancher example, the farmer does not initially have the right to compensation and then have the right wrenched away by the state and given to the rancher. Rather, Coase (1960 p. 6) says,

I now turn to the *case* in which, although the pricing system is assumed to work smoothly (that is, costlessly), the damaging business is not liable for any of the damage which it causes [emphasis added].

Coase assumes that prices allocate resources without cost. This necessarily implies that transaction (policing) costs are zero and that property rights are *perfectly* defined. If property rights are not perfect, then resources are devoted toward their protection and capture, and transaction costs are positive.

Zero transaction costs and perfectly defined property rights are the same thing. Further, since perfect ownership does not admit theft, all transfers must be purchased in a zero-transaction-cost world; that is, alterations in property rights must be accompanied by appropriate compensation. If this is not the case, then the rights are not perfectly defined, and therefore, transaction costs exist.⁹

If the Coase theorem is so viewed, then Peters's finding of systematic wealth transfers from women to men at divorce would

⁹For a discussion of transaction costs and theft see Yoram Barzel (1985) and Allen (1992).

imply positive transaction costs. On theoretical grounds, however, this would have to be expected. That the state can alter ownership without compensation means that property rights are not perfectly defined. When rights are not perfectly defined, efforts are made to protect. These efforts are transaction costs. In a zero-transaction-cost world, women would fare no worse under no-fault laws.¹⁰

It is hard to imagine a zero-transaction-cost world. Even models that assume zero transaction costs usually have these costs buried somewhere. Consider Peters's prediction that women should do worse under no-fault laws. Why women? In a relationship initiated by mutual gain and terminated when such gains are deemed to be negative, there is no reason to expect one party rather than the other to seek termination. Yet Peters assumes that women are the ones least likely to initiate divorce. Women would behave this way only because the law is not neutral; and it is not neutral because the old fault laws protected property held by women (e.g., investments in a husband's human capital). Though Peters claims a model with zero transaction costs, her empirical work has a transaction-cost foundation.

III. Conclusion

Transaction costs arise from establishing and protecting one's property rights. They result from the possibility of involuntary transfers of wealth, from which marriage is not exempt. Indeed, given the span of married life, the extreme degree of specialization for many women, the difficulty in monitoring a spouse's performance, and the possibility of radical unexpected changes in marriage law, marriage is likely to have very large transaction costs. For example, differences in property-division laws led to huge transaction costs for some couples living in various states when no-fault laws were

introduced.¹¹ Under conditions of positive transaction costs, the price system would not be expected to work smoothly, and the reallocation of property rights will have real effects, as individuals attempt to maximize their wealth at the expense of others. Peter's empirical test, to the extent that it indicates anything, suggests that the shift from a fault to a no-fault divorce law increased the frequency of divorce. The corrected findings are also consistent with the hypothesis that transaction costs are important for the analysis of marriage.

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¹⁰Some feminist and women's groups initially lobbied for no-fault law and later reversed their stand. Their actions, both before and after no-fault divorce, suggest that the law is not neutral.

¹¹See Allen (1990) or Cohen (1987) for specific examples.

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