DID UNILATERAL DIVORCE RAISE DIVORCE RATES? EVIDENCE FROM PANEL DATA

Leora Friedberg

Working Paper **6398**

NBER WORKING PAPER SERIES

DID UNILATERAL DIVORCE RAISE DIVORCE RATES? EVIDENCE FROM PANEL DATA

Leora Friedberg

Working Paper 6398
http://www.nber.org/papers/w6398

NATIONAL BUREAU OF ECONOMIC RESEARCH
1050 Massachusetts Avenue
Cambridge, MA 02138
February 1998

I wish to thank Jon Gruber, Shoshana Grossbard-Shectman, Jerry Hausman, Jim Poterba, and especially Aaron Yelowitz for many useful discussions, the editor and anonymous referees for their comments, and Margaret Brinig for sharing her data on state divorce laws. Any opinions expressed are those of the author and not those of the National Bureau of Economic Research.

© 1998 by Leora Friedberg. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

Did Unilateral Divorce Raise Divorce Rates?
Evidence from Panel Data
Leora Friedberg
NBER Working Paper No. 6398
February 1998
JEL Nos. J12, K39

ABSTRACT

This paper revisits the evidence on the impact of unilateral divorce laws on divorce rates in the United States. Most states switched from requiring mutual consent to allowing unilateral or no-fault divorce between 1970 and 1985, while the national divorce rate more than doubled after 1965. According to the Coase theorem, however, the legal shift should have had no effect on divorce rates. Recent papers using cross-sectional micro data have disputed the empirical importance of unilateral divorce, disagreeing in particular about controls for state-level heterogeneity in divorce propensities. This paper uses a panel of state-level divorce rates which includes virtually every divorce in the U.S. over the entire period of the law changes. Adding comprehensive controls - year and state fixed effects and state fixed trends - for changing unobservable divorce propensities reveals that the divorce rate would have been about 6% lower if states had not switched to unilateral divorce, accounting for 17% of the increase in the divorce rate between 1968 and 1988. Additional results in this paper demonstrate that the type of unilateral divorce law that states adopted matters. Weaker versions of unilateral divorce, which retain elements of mutual divorce, raised the divorce rate significantly, but by less than the strongest versions of unilateral divorce did.

Leora Friedberg
Department of Economics, 0508
University of California, San Diego
9500 Gilman Drive
La Jolla, CA 92093-0508
and NBER
lfriedber@weber.ucsd.edu

Since early 1996, at least eight states have begun to consider rolling back unilateral and no-fault divorce – a major reversal of the liberalizing trend in divorce laws which began around 1970.[1] The proponents of tightening the divorce regime often argue that making divorce more difficult will strengthen families. However, both theoretical and empirical evidence is decidedly mixed over whether the "no-fault revolution" actually contributed to the sharp increase in divorce rates in the U.S. observed over the last thirty years.

Thorough empirical work on the subject by Peters (1986) was followed by a comment by Allen (1992) and a reply by Peters (1992). Using the same cross-section of women observed in 1979, Peters found no role for the switch to unilateral divorce in explaining rising divorce rates, while Allen found a significant impact. The differences in their results centered on controls for geographical heterogeneity in divorce propensities. In this paper I address the dispute by using a panel of state-level divorce rates. The sample includes virtually every divorce in the U.S. over the entire duration of the law changes and allows thorough controls for heterogeneity in divorce propensities across states and over time – which turn out to be crucial to the results. Including state-specific trends allows unobserved state divorce propensities to trend linearly and even quadratically over time and reveals that unilateral divorce raised divorce rates significantly and strongly.

An additional difficulty in this literature arises in defining precisely what is unilateral divorce. Peters and Allen disagreed whether separation requirements qualify as unilateral divorce. Brinig and Buckley (1996) questioned whether divorce in states that retain fault grounds for property settlement can be considered unilateral. The empirical analysis in each of those papers retained a binary classification of divorce laws, yet the impact of different types of unilateral divorce can be tested. I find here that the type of unilateral divorce matters. States that adopted divorce laws which were more strongly unilateral had greater increases in the divorce rate. Nevertheless, the evidence shows that adopting any type of unilateral divorce raised the divorce rate.

I combine both sets of results to arrive at final estimates of the impact of unilateral divorce. The final estimates suggest that the divorce rate would have been about 6% lower in

---

[1] See for example Leland (1996) in *Newsweek*.

1988 if no type of unilateral divorce had been adopted in those states that switched to unilateral divorce after 1968. The move towards unilateral divorce accounted for 17% of the increase in divorce rates between 1968 and 1988. I also demonstrate that the law changes do not appear to be endogenous, and that the effect of unilateral divorce on divorce behavior was permanent, not temporary.

I. MEASURING THE IMPACT OF UNILATERAL DIVORCE

The divorce rate in the United States soared in the 1960s and 1970s, rising from 2.2 per thousand people in 1960 to 5.0 in 1985, as demonstrated in Figure 1 by the upper line.[2] During that time, states substantially liberalized and simplified their divorce laws. For example, in the absence of fault most states once required mutual divorce, to which both spouses had to consent. Many states abandoned mutual divorce requirements in favor of unilateral divorce, which required the willingness of only one spouse to divorce. Most states also adopted some form of no-fault divorce, eliminating the need for one spouse to prove a transgression by the other. The lower line in Figure 1 shows the rise in the population-weighted percentage of states with unilateral no-fault divorce starting in 1968.[3] Casual observation suggests attributing at least some of the increasing prevalence of divorce to the widespread shift to unilateral and no-fault divorce, which appears to make divorce simpler. On the other hand, lawmakers and legal experts at the time argued that the motivation for changing the laws was to bring law books into alignment with actual practice and to eliminate the need to assign blame during a divorce, but not to make divorce easier.[4]

---

[2] Cherlin (1992) documented that the divorce rate rose steadily in the late nineteenth and early twentieth centuries. After a sharp peak during World War II, it dropped below trend in the 1950s. The rise in the 1960s and 1970s looks especially stark compared to the low level in the 1950s, but it also was steeper than the century-long trend.

[3] Figure 1 shows the percentage of states with any type of unilateral divorce broadly or narrowly defined. Section II discusses the classification of unilateral divorce laws.

[4] This intention is stated in the letter of the law in several states, such as Wisconsin. With respect to actual practice at the time, studies showed that many divorces did not involve real transgressions, regardless of legal requirements (Freed and Foster [1979]). As an example, news stories several years ago reported that, while the ex-

A theoretical model of divorce laid out by Peters (1986) and Becker (1981) showed that, under perfect information and costless bargaining, a marriage will be dissolved when it is efficient to do so: "when the joint value of the marriage is less than the sum of the values of opportunities that face each spouse at divorce" (Peters, p.438). Barring asymmetric information and transactions costs, a change in the law from mutual to unilateral divorce would not make divorce more likely. By the Coase theorem, it would simply redistribute property rights from the spouse who wished to remain in the marriage to the spouse who wished to leave. Thus, under mutual divorce the spouse who wished to leave the marriage had to compensate the spouse who wished to stay in order to obtain the efficient outcome of divorce, while under unilateral divorce the spouse who wishes to stay in the marriage must compensate the one who wishes to leave. The law change would alter the property rights and resulting compensation scheme between the spouses without making them more likely to divorce.

Estimation Approach

The typical test of whether the Coase theorem applies, and hence the type of divorce law does not matter, asks whether people living under unilateral divorce laws are no more likely to divorce than people living under mutual divorce laws. Peters (1986) and Allen (1992) took this approach, using the same cross-sectional data but arriving at different conclusions. Both used a supplement from the 1979 Current Population Survey of individuals' marital histories. They estimated a logit on a sample of those women who reported being married in 1975, where the left-hand side variable was one if a woman was divorced in 1978 and zero if she stayed married. Controlling for demographic variables believed to affect the likelihood of divorce, they used the variation of divorce regimes across states in 1978 to identify whether unilateral divorce raised divorce rates.

---

wife of former Governor Doug Wilder of Virginia had divorced him on the grounds of cruelty, they had fabricated the grounds in order to obtain a divorce which they both wanted. Similar anecdotes suggested to the legal and legislative community that blame was not necessary to determine whether a couple should divorce.

Peters and Allen disagreed about including controls for geographic differences in divorce propensities. Peters estimated a coefficient on unilateral divorce of virtually zero. Allen demonstrated that, when region dummies and a state's 1970 divorce rate were excluded from the regression, the coefficient on the law became significant and of an important magnitude, implying that unilateral divorce raises the probability of divorce by 1.4%. He suggested that the region dummies did not serve a purpose in explaining divorce independently but simply absorbed much of the variation in divorce laws.[5]

With panel data, the role of cross-state heterogeneity in divorce behavior can be explored in more detail, without having to be specific about the sources of heterogeneity. State fixed effects control for unobserved influences on divorce that vary across states, so that the effect of the divorce law is identified from its variation within a state over time. For this purpose, I assembled a panel of state-level divorce rates over a twenty year period. This data records virtually every divorce in the United States.[6]

The relationship which Peters estimated can be easily adapted for a panel of state divorce rates. Her regression took the following form:

(1) $$divorce_{is} = a_0 + a_1 * unilateral_s + a_2' * Z_{is} + e_{is},$$

which describes a population of women who are initially married. Each observation is subscripted for the individual i and the state s in which she lives. The variable *divorce* is one if the woman is divorced when observed and zero if she is not. Of interest is the variable *unilateral*, which is one if the woman's state has a unilateral divorce law and zero if it has a mutual divorce law. Demographic characteristics which may affect the propensity to divorce, such as education, number of children, and age, are included in Z.[7]

---

[5] Allen also disagreed that the Coase theorem could apply to this situation, arguing that marriage is not a state with perfectly defined property rights and that divorce involves transaction costs. This disagreement does not interfere with the empirical approach of measuring the impact of unilateral divorce laws on divorce propensities.

[6] Using a longitudinal survey like the Panel Study of Income Dynamics might be preferable, since it has more individual level information on the correlates of divorce. However, it has the disadvantages of a very small sample size and potential bias due to sample attrition being correlated with divorce.

[7] Peters estimated a logit, not a linear probability model as expressed in (1). She used age, education, race,

To estimate the relationship with state-level time-series data, add up equation (1) over observations within a state and divide by population to obtain the following:

$$(2) \qquad divrate_{st} = b_0 + b_1 * unilateral_{st} + b_{2s} * state_s + b_{3t} * year_t + u_{st} .$$

Now, the dependent variable *divrate* is the state level divorce rate, which is the number of divorces that occur within a state each year divided by the state population in thousands.[8] The disturbance u is equal to $(\Sigma_{i \in s} e_{ist})/pop_{st}$, the sum of all individual disturbances within a state each year divided by the population. This makes u heteroscedastic, so population is used to perform weighted least squares.[9] Using a panel allows the inclusion of *year*, which are year effects that control for evolving unobserved national attributes that affect the likelihood of divorce.

The demographic characteristics Z from (1) might become, for example, the number of urban residents or the number of children in the state. Equation (2) assumes that the demographic characteristics are unchanging within a state over time. The coefficients cannot be separately identified, so the state characteristics are subsumed in the fixed effect *state*. The use of state effects, which is only possible with a panel, is advantageous because it explains divorce patterns flexibly, rather than having to include all relevant divorce covariates explicitly. However, the factors which influence divorce may vary within a state over time, confounding the estimates of the state effects. That will also bias the estimate of the coefficient on *unilateral* if the changing factors are correlated with the law changes across

---

number of kids under 18 added linearly and squared, an SMSA dummy, and a dummy for being in the labor force as right hand side variables.

[8] To be precise, *divrate* should measure the number of divorces per thousand married women, but that information is not readily available. To get at the true divorce rate, I used the sampling weights to aggregate data from the Current Population Survey and obtain estimates of the stock of married women by state and year, in order to renormalize the measured divorce rate. This had the effect of strengthening the estimated impact of *unilateral* on divorce rates, but not significantly. In the rest of the paper I use the available measure of the divorce rate, principally because the Current Population Survey did not report exact state identifiers for numerous states before 1978.

[9] The intuition behind weighted least squares is that a positive effect of *unilateral* in, say, California will carry more weight than a positive effect in New Hampshire.

states, and if such factors do not change at a national level uniformly and get picked up by the year effects. The specification in (2) can be relaxed further to allow for such changing influences within a state over time, as follows:

$$(3) \qquad divrate_{st} = c_0 + c_1 * unilateral_{st} + c_{2s} * state_s + c_{3t} * year_t + c_{4s} * state_s * time_t + c_{5s} * state_s * time_t^{\,2} + u_{st} .$$

time is a time trend, so the interaction terms *state* time* and *state* time*^{2} are linear and quadratic trends for each state. They capture quadratic trends in state-level characteristics that influence divorce, with the slopes of the trends allowed to vary across states.[10] Thus, (3) represents an extremely flexible way to control for heterogeneous divorce behavior, identifying the impact of *unilateral* from a jump in the pattern of divorce which is distinguishable from a smooth quadratic. While it remains possible that this specification still does not capture all of the factors explaining *divrate*, additional evidence against the endogeneity of *unilateral* will be discussed later.

Data

The longitudinal data on state divorce rates cover all fifty states and the District of Columbia from 1968 to 1988. The "no-fault revolution" began in 1970 when California replaced all fault grounds for divorce - such as adultery and cruelty - with the sole ground of irretrievable breakdown of the marriage. Over the following decade and a half, every state legalized no-fault grounds for divorce. As reported in Table 1, most states adopted unilateral divorce as well, under which the no-fault grounds do not require the agreement of both spouses.[11] Table 1 also distinguishes among alternative categorizations of divorce laws. For comparability, the results in this section use Peters' classification of unilateral divorce, which

[10] The use of state-specific linear trends follows Jacobson, LaLonde and Sullivan (1993).

[11] The information in Table 1 is derived from Freed and Foster (1977, 1979, 1981), Freed and Walker (1990), Sepler (1981), and Brinig and Buckley (1996).

excludes those states where the only unilateral ground is living separate for a length of time. Later I relax the restriction that separation requirements have no effect on divorce rates.

Divorce rates by state, reported in *Vital Statistics of the United States*, are shown in Table 2. The sample covers virtually every divorce in the country for twenty years. It is not complete because, in certain states in certain years, *Vital Statistics* reports that the data was collected in an irregular or incomplete fashion. A set of dummies, listed in the Appendix, control for those instances. A few missing values are also listed in the footnotes to Table 2.

Results with State and Year Effects

The coefficient on *unilateral* turns out to be quite sensitive to the nature of state and time controls used, as Allen demonstrated. The results of estimating the basic regression and then adding state and year effects, as in equation (2), are shown in Table 3. Regression 3.1 has no state or year effects. The estimated coefficient on *unilateral* is statistically significant and very large, at 1.802 (0.087), with an adjusted R^2 of 0.314. Similar results are obtained with year effects in regression 3.2. Regression 3.3 adds state fixed effects, which are meant to absorb everything affecting divorce behavior at the state level that is constant over time. Adding state effects drives down the coefficient on *unilateral* to 0.004 (0.056), while raising the explanatory power of the regression to 0.946. The state effects appear to explain most of the pattern of divorce, which had previously been picked up by the divorce law.

Adding State-Specific Trends

The results above make it clear that unobserved covariates and unobservable divorce propensities - which may include, for instance, social attitudes, religious beliefs and family size - are the main determinants of divorce. However, assuming that they are constant within a state over twenty years or changing over time but uniform across the nation is restrictive. State-year interactions are completely unrestrictive but not feasible. State-specific trends, though, are a feasible alternative that allow the unobserved state factors influencing divorce to have a linear trend, with the trend allowed to vary across states. The estimated coefficient on

unilateral retains the same interpretation as before: a positive coefficient measures by how much a unilateral divorce law raises a state's divorce rate, which now might also have a positive or negative trend.

Regression 3.4 includes the state-specific trends. The state trends are jointly significant and raise the adjusted R^2 to 0.976. More importantly, the coefficient on *unilateral* is much larger and has a smaller standard error. The estimate of 0.447 (0.050) means that unilateral divorce raised the divorce rate by more than 0.4 divorces per thousand people, a substantial impact relative to the average divorce rate over the period of 4.6.

Why State-Specific Trends Matter

Why the big change in the estimate of *unilateral*'s coefficient when state trends are added? It is because imposing a flat state divorce propensity misspecifies the underlying divorce behavior and in turn camouflages the variation induced by the law change. Naturally, imposing constant state divorce propensities when they are really trending will bias the estimates of the constants – the estimated intercepts will reflect the average of the trend instead of the true intercept, which is the state's initial divorce propensity only. If, further, the omitted slopes are correlated with the law changes, the result is omitted variable bias. The resulting bias can be depicted visually, as in Figure 2-A. The upper line in Figure 2-A is California's actual divorce rate, with the box signaling the year of the law change. The lines near the bottom show what remain of the divorce rate to be explained by the law change in each regression. The dashed line removes the constant and the state and year effects from regression 3.3, and the solid line removes the (negative) state trend as well from regression 3.4. Both lines jump in the year of the law change, but the dashed line from regression 3.3 ultimately confounds the influence of *unilateral* with the omitted downward trend in California's divorce propensity, biasing downward the estimated effect of *unilateral*. The solid line, on the other hand, demonstrates that, controlling for all other influences, the law change raised the divorce rate permanently. Figure 2-B illustrates the same point for

Michigan. While the dashed line obscures the effect of *unilateral*, the solid line shows that the law change raised the divorce rate.

The possibility remains that the unobservables exhibit more complex dynamic behavior than can be captured by the linear trend. Therefore, regression 3.5 adds a quadratic in the time trend for each state, which places stronger restrictions on the kind of variation in the divorce rate that can be attributed to the law change. Now, the effect of *unilateral* is identified from a break in the pattern of divorce that is distinguishable from a smooth quadratic. The state quadratic terms in regression 3.5 are jointly significant, raising the adjusted R^2 once more. Meanwhile, the estimated coefficient on *unilateral* is virtually unchanged 0.441 (0.055), compared to 0.447 (0.050) without the quadratics. The estimate of *unilateral*'s impact is robust even when the underlying divorce behavior is parameterized very flexibly.

The strongly significant coefficient on *unilateral* when state trends are included indicates that both Peters' and Allen's regressions were misspecified. Unless the individual-level demographic controls he used fully explain the divorce rate, Allen – by omitting any controls for state divorce propensities – was naturally more likely to find an impact of the law change, as regression 3.1 demonstrated. Yet, Peters' approach of including the state's 1970 divorce rate was similar to including only the state fixed effect as in regression 3.3, obscuring the impact of *unilateral*.

II. WHAT IS UNILATERAL DIVORCE?

Classification of State Divorce Laws

The theory regarding unilateral divorce is concerned simply with whether one partner can end the marriage without the consent of the other, but what constitutes unilateral divorce in practice is not so clear-cut. One reason it requires some care is that most of the legal scholarship has focused on whether divorce grounds are fault or no-fault, rather than mutual or unilateral. However, no-fault divorce is not synonymous with unilateral divorce, which is the subject of the Coase theorem. A few states (such as Delaware and Arkansas) allow no-fault grounds but require mutual agreement on them and are classified as having mutual divorce.

Two further issues arise in the classification of state laws, both of which I will test for. Some states allow unilateral divorce only if the couple has lived separately for a length of time. Peters classified those states as having mutual divorce. She argued that separation requirements impose a large cost to divorce unilaterally, so that it would continue to be in the interest of the spouse who wishes to leave the marriage to compensate the spouse who wishes to remain in the marriage in order to divorce promptly. Allen reclassified separation states as having unilateral divorce but found little change in the estimated effect of *unilateral*. This issue is addressed here more thoroughly by allowing for the two types of unilateral divorce to have different effects on the divorce rate. According to Peters' hypothesis, separation requirements will have an insignificant effect on the divorce rate, compared to other no-fault grounds. The strategy employed here allows separation requirements to have a smaller but still significant effect on divorce.

A final issue raised by Brinig and Buckley (1996) concerns the grounds for property settlement and alimony. Some states grant no-fault divorces but still allow fault to be considered in the division of property and determination of alimony. Brinig and Buckley argue that fault considerations in property division raise the cost of divorce for the spouse who wishes to leave, in effect keeping the property rights with the spouse who wishes to stay in the marriage. Brinig and Buckley classify states as no-fault only if they have no-fault property division as well.[12] Again, I test their hypothesis explicitly by allowing separate effects on divorce for states that have unilateral divorce with no-fault property division or with fault property division.

Estimating the Impact of Different Unilateral Divorce Laws

In Table 4, I report the results of including separate variables for the different types of unilateral divorce. Regressions 4.1and 4.2 explore the impact of unilateral divorce with separation requirements. If separation requirements raise the cost of divorce, in effect keeping

[12] Another condition for no-fault divorce in Brinig and Buckley's classification is that a state not retain any fault grounds for divorce. This does not seem to be relevant to the definition of unilateral divorce, however.

some of the property rights with the spouse wishing to stay in the marriage, it would be reflected in a smaller or insignificant coefficient. In regression 4.1, the impact of both types of unilateral divorce is statistically significant. The coefficient on unilateral divorce with separation requirements of 0.167 (0.059) is statistically different from the coefficient of 0.450 (0.050) on strict unilateral divorce, as indicated by the reported p-value of the F-test. Therefore, the effect of unilateral divorce with separation requirements is substantially smaller but still positive.[13]

Regressions 4.3 and 4.4 allow a distinct effect of unilateral divorce depending on whether grounds for property division are no-fault or fault. Even if divorce grounds are no-fault, fault considerations in property settlement and alimony may strengthen the position of the spouse who wishes to stay in the marriage. In 4.3 the coefficient on unilateral divorce with fault property division falls to 0.392 (0.056), significantly different from the coefficient on strict unilateral divorce at a 96.7% confidence level. The coefficient on strict unilateral divorce, with no-fault grounds for property division, is 0.545 (0.068), somewhat larger than the coefficient of 0.447 (0.050) when grounds for property division are ignored.

Regression 4.4 combines the approaches taken in 4.1 and 4.3 by allowing for a multiple classification of unilateral divorce. In 4.4 the coefficient on very strict unilateral divorce - unilateral divorce without separation requirements and without fault grounds for property division - is reported in the first row and rises to 0.549 (0.067). It implies a powerful effect on divorce rates, while the other three types of unilateral divorce have smaller effects. The next largest coefficient is 0.396 (0.056) for unilateral divorce without separation requirements but with fault property division. Unilateral divorce with separation requirements has a smaller impact on divorce, with respective coefficients of 0.133 (0.091) and 0.192 (0.078) without fault

[13] Regression 4.2 allows distinct effects of different required lengths of separation. With much less variation among states in the lengths required, these results are less informative. The coefficient on a twelve month separation requirement is statistically significant and is similar to the coefficient on strict unilateral divorce. The coefficients on the other lengths of separation are far from being significant. The results indicate that twelve months is not too long to wait for the spouse who wishes to leave the marriage, when the alternative is mutual divorce, but that waiting longer might impose an excessive cost.

grounds and with fault grounds for property settlement. Though not significantly different, the two coefficients are in reverse order from what would be expected.

To sum up, this section finds that the type of unilateral divorce a state adopted mattered. The strictest unilateral divorce, without separation requirements or fault considerations in property division, raised the divorce rate by 0.549 per thousand people - 11.9% of the average of 4.6 during the sample period. As Peters and Brinig and Buckley hypothesized, but did not test, weaker versions of unilateral divorce did have smaller effects on the divorce rate - but their effects were still positive. Fault-based property division proved less of a constraint on divorce behavior than separation requirements, according to the evidence. Overall, the results strengthen conclusions about the impact of switching to any type of unilateral regime. The estimates from regression 4.4 show that the divorce rate would have been 6.4% lower in 1988 if no type of unilateral divorce had been adopted in those states that switched.[14] The move towards unilateral divorce after 1968 accounted for 17.1% of the increase in divorce rates between 1968 and 1988.

III. ADDITIONAL RESULTS

Endogenous Legislation

Any analysis of how legal changes affect behavior raises the question of endogeneity. In the case of divorce, it might be that rising divorce rates caused the law to be changed or that increasing permissiveness towards divorce, which in turn raised divorce rates, did - not that the law changes caused divorce rates to rise. Several authors argue against this.[15] Also, Peters asserted that interest groups of divorcing individuals were not part of the debate over no-fault divorce laws and that proponents of the change were primarily legal scholars. Unfortunately, it is difficult to come by instruments in order to test properly for endogeneity.[16]

---

[14] Estimating the relationship with the log of the divorce rate on the left hand side yields very similar conclusions.

[15] For example, legal scholars Freed and Foster (1979) and Sepler (1981).

[16] An instrument must be correlated with the law changes but not with the divorce rate independently and must also, for purposes here, vary across state and time. In a time series study, Sepler used as a control the number of articles about no-fault divorce in legal journals, which does not vary across states. Other potential instruments relate

An indication of whether legislation might be endogenous can be found in the correlation across states between initial divorce rates and the likelihood and chronology of the law changes. It does turn out that a state's 1968 divorce rate is a reasonable predictor of *whether* a state adopted strict unilateral divorce - with a correlation coefficient as high as 0.31 (0.03), depending on the type of unilateral divorce considered.[17] This result is consistent with similar findings reported in Peters (1992). However, the initial divorce rate is not correlated with *when* a state adopted unilateral divorce.[18]

A similar conclusion results from a strategy employed by Gruber and Hanratty (1995). In their regression they added a lead dummy variable for whether a law change would occur in the subsequent year. Under the null hypothesis in which causality goes from the law change to the left-hand side variable, the lead dummy should have a coefficient of zero. Otherwise, if there is reverse causality or some other type of endogeneity, then the coefficient will be different from zero. Regression 5.1 in Table 5 shows that the coefficient on the lead dummy of 0.004 (0.067) is extremely small and statistically indistinguishable from zero.

Therefore, although state divorce propensities do appear to be related to whether a state adopted unilateral divorce (and what type it adopted), the evidence bolsters the identifying assumption that prevailing state characteristics did not influence the timing of the legal change. These results support the use of panel data to identify the impact of unilateral divorce from variation in divorce laws within states over time, instead of across states at a point in time.

---

to the composition of the legislature (number of women, number of divorced people, etc.) but are difficult to obtain.

[17] All but five states had some type of unilateral divorce by the end of the time period, which does not yield a very informative correlation coefficient (only 0.09 (0.56)) with the divorce rate in 1968. The correlation coefficient rises when stricter versions of unilateral divorce are considered. It is 0.27 (0.06) when unilateral divorce excludes separation requirements and 0.31 (0.03) when unilateral divorce excludes fault grounds for property settlement. The magnitudes are almost the same when omitting states already with unilateral divorce in 1968, thus focusing on whether states without unilateral divorce adopted it.

[18] The correlation coefficient between the 1968 divorce rate and the subsequent year in which a state adopted unilateral divorce is -0.10 (0.56) when any type of unilateral divorce is considered and is of a similar magnitude and lack of significance when stricter types of unilateral divorce are considered.

Timing

Given the emphasis on the dynamics of the unobserved factors affecting divorce, it is instructive to explore whether the estimation properly captures the dynamics of *how* adopting a unilateral divorce law affected divorce. Two particular issues arise in this regard. One issue is whether the response to the law change was permanent, as modeled, or in fact transitory. Another is whether the length of the panel is appropriate.

First, the response to the legal change might have been a temporary acceleration of divorce - perhaps from a "backlog" of bad marriages breaking up earlier than otherwise - rather than a permanent change in divorce propensities. Adding dummies for the years of and immediately following the law change indicate the duration of *unilateral*'s impact. If the law change has only a temporary effect, we would expect a positive coefficient on the lag dummies and an insignificant coefficient on *unilateral*. The results are shown in regressions 5.2-5.4 of Table 5, of which the most illustrative is 5.4 with dummy variables for the year of and two years following the law change. The more general dynamic structure actually strengthens the long-run effect of *unilateral*, although the estimate of 0.536 (0.065) is not statistically different from the estimate in regression 3.4. The lag dummies have negative coefficients, revealing that the long-run effect was attained gradually. In the year of the law change, the impact was to raise the divorce rate by 0.419 [0.536-0.117], and in the following year by 0.446 [0.536-0.090]. The results demonstrate another reason why the estimate of *unilateral*'s impact was attenuated using Peters' and Allen's data - it was a cross-section in the late 1970s, during the transition from mutual to unilateral divorce in many states.

Another issue involves the appropriate length of the panel. A long panel is useful, in principle, for capturing the background changes in divorce patterns over time. However, if the linear, or even quadratic, state trends are misspecified, then a longer panel could lead to a worse instead of better fit. If, further, the changing state divorce propensities are correlated with the adoption of unilateral divorce, then the longer is the panel and the worse the fit of the state trends, the more biased might become the estimate of *unilateral*. Most states switched to

unilateral divorce in the 1970s, so the question that arises is whether the extra observations in the 1980s add useful information to the specification or worsen the estimate of *unilateral*.

To see whether the extra years of data alter the estimates, regression 5.5 in Table 5 cuts off the sample at 1979 – still encompassing more than nine-tenths of the law changes. The estimate of *unilateral*'s impact in regression 5.5 is only slightly different, at 0.438 (0.055) compared to 0.447 (0.050) in regression 3.4. The standard error is higher as well, not surprisingly. Adding one year at a time to the sample period from 1980 on induces relatively small, though not trivial, changes in the coefficient estimates, which range from 0.421 to 0.485. A partial explanation for this pattern arises from the evidence just noted of a gradual response of divorce rates in the remaining states switching to unilateral divorce. Adding years of data also improves the F-statistic testing the joint significance of the state trends. Therefore, the estimates do not indicate that the extra years of data, in which few states actually adopted unilateral divorce, distort the estimate of *unilateral*, but instead that they help in identifying the underlying trends in state divorce propensities.[19]

Additional Features of the Estimation

The estimated coefficients on the fixed effects and trends are of interest in themselves because they generate most of the explanatory power in the regressions. The coefficients on the year effects, which control for unobserved factors that affect divorce nationally, are significant and quite large, although adding state trends in regressions 3.4 and 3.5 reduces their magnitude a little and raises their standard errors. The pattern of the year effects mirrors the divorce trends in Figure 1, with the coefficients growing bigger through the 1970s, peaking around 1980, and then stabilizing. Thus, whatever were the factors common across the nation that affected divorce – more liberal attitudes towards divorce, for example – they increasingly raised divorce rates until 1980, after which their influence steadied.

[19] Since the estimates do not provide any conclusive evidence about when to cut off the panel, I chose to use data up to the latest year available.

The coefficients on the state effects and trends from regression 3.4, shown in Table 6, tell us about geographical patterns in divorce propensities. Large negative intercepts are prevalent in the Northeastern and North Central states, so the propensity of their residents to divorce was the lowest at the beginning of the sample. But while starting low, the propensity to divorce rose somewhat in parts of the region, indicated by the positive coefficients on the slopes. Residents of Southern states generally began with a moderate propensity to divorce that rose over the period, indicated by intercept coefficients close to zero and positive slope coefficients. Residents of Western states started with the greatest propensity to divorce, which moderated in some states.[20]

Lastly, given the wide variation in divorce trends across states, a final check of whether *unilateral* is capturing other effects involves adding other state-level covariates to the regression. They might affect divorce but might not be captured fully by the state fixed effects and trends. Additional variables corresponding to Peters' covariates - education, race, urbanization, income, employment - were extracted for women from the March Current Population Survey (CPS) and aggregated by state each year using the CPS weights. Including the extra variables in the regression leaves the coefficient on *unilateral* virtually unchanged.[21] This confirms that the state fixed effects and trends are capturing the important influences on divorce.

---

[20] The intercept and slope coefficients on Nevada are noticeably large because Nevada is a divorce haven, with very short residency requirements. This would bias upward the coefficient on *unilateral* if a couple that would have divorced in Nevada now divorces at home - a story corroborated by Nevada's large negative slope coefficient. However, the very high divorce rate in Nevada is misleading because Nevada has an extremely small resident population. Divorces in Nevada have ranged between nine and fifteen thousand since the late 1960s, while nationwide divorces hit one million in 1975 and kept rising. The percentage of nationwide divorces obtained in Nevada, while closer to 2% in the 1960s, has been in the neighborhood of 1% since then. Those magnitudes will not have much of an impact in estimating the coefficient on *unilateral* with weighted least squares.

[21] The coefficient on *unilateral* changes at most at the fourth decimal place. None of the state-level variables are significant at the 90% confidence level. The joint F-statistics on the state fixed effects and trends decline slightly but remain significant at better than 99.9%. Before 1978, not all states are identified separately in the CPS, reducing the sample size by 274.

VI. CONCLUSION

Using panel data sheds new light on the impact of the no-fault revolution on divorce rates. It shows that the way one controls for geographical heterogeneity affects the estimation considerably, as Peters and Allen already demonstrated. But further, it shows that controlling flexibly for unobserved attributes of state populations that are correlated with both divorce behavior and the divorce law is crucial. This is made possible by using longitudinal divorce data. I assembled a panel of state level divorce rates, which measures virtually every divorce in the U.S. over the entire duration of the law changes. The estimation reveals a strong influence of unilateral divorce: divorce rates would have been about 6% lower if states had not adopted unilateral divorce, accounting for 17% of the overall increase between 1968 and 1988. The current move to tightening divorce requirements can therefore be expected to lower the number of divorces. However, the estimates also demonstrate that other factors in addition to unilateral and no-fault divorce had a great deal to do with the increase in divorces in the U.S.

REFERENCES

Allen, Douglas, W. "Marriage and Divorce: Comment." *American Economic Review*, June 1992, *82*, 679-85.

Becker, Gary S. *A Treatise on the Family*, Cambridge: Harvard University Press, 1981.

Brinig, Margaret F., and F.H. Buckley. "No-Fault Laws and At-Fault People." *International Review of Law and Economics*.

Cherlin, Andrew J. *Marriage, Divorce, Remarriage*, Cambridge: Harvard University Press, 1992.

Freed, Doris Jonas, and Henry H. Foster, Jr. "Divorce in the Fifty States: An Outline." *Family Law Quarterly*, Fall 1977, *11*, 297-313.

Freed, Doris Jonas, and Henry H. Foster, Jr. "Divorce in the Fifty States: An Overview as of 1978." *Family Law Quarterly*, Spring 1979, *13*, 105-28.

Freed, Doris Jonas, and Henry H. Foster, Jr. "Divorce in the Fifty States: An Overview." *Family Law Quarterly*, Winter 1981, *14*, 229-47.

Freed, Doris Jonas, and Walker, Timothy R. "Family Law in the Fifty States: An Overview." *Family Law Quarterly*, Winter 1990, *23*, 495-608.

Gruber, Jonathan, and Maria Hanratty. "The Labor Market Effects of Introducing National Health Insurance: Evidence from Canada." *Journal of Business and Economic Statistics,* April 1995, *13*, 163-73.

Jacobson, Louis S., Robert J. LaLonde and Daniel G. Sullivan. "Earnings Losses of Displaced Workers." *American Economic Review*, September 1993, *83*, 685-709.

Leland, John. "Tightening the Knot." *Newsweek*, February 19, 1996, 127, 72-3.

Peters, H. Elizabeth. "Marriage and Divorce: Informational Constraints and Private Contracting." *American Economic Review*, June 1986, *76*, 437-54.

Peters, H. Elizabeth. "Marriage and Divorce: Reply." *American Economic Review*, June 1992, *82*, 686-93.

Sepler, Harvey J. "Measuring the Effects of No-Fault Divorce Laws Across Fifty States: Quantifying a Zeitgeist." *Family Law Quarterly*, Spring 1981, *15*, 65-102.

Vital Statistics of the United States. 1960-1988.

APPENDIX

Dummy variables were created to account for the following irregularities in the data on divorce rates:

State	Time Period	Reason
Kentucky	1978-1984	incomplete
Mississippi	1979, 1984-1985	incomplete
Arkansas	1973-1974,1980, 1982-1985	incomplete
New Mexico	1968-1973, 1981-1982, 1986-1987	incomplete
New Mexico	1981-1982, 1984-1985	divorce petitions filed
California	1984-1986	include legal separations
Ohio	1981-1985	incomplete
Indiana	1968-1969, 1974,1977-1986	include divorce petitions
Indiana	1970-1977	incomplete
Oklahoma	1970-1974	include divorce petitions
Arizona	1968-1972	include divorce petitions
Michigan	1988	incomplete
District of Columbia	1987-1988	valid divorce certificates
Mississippi	1988	incomplete
New Mexico	1988	incomplete
California	1988	incomplete

Louisiana had incomplete data for the entire series, which is accounted for in the estimation by the Louisiana state effect. The regression results are quite similar when these observations are omitted.

TABLE 1: Divorce Laws, by States

State	(1) Unilateral divorce	(2) Unilateral divorce, including separation requirements	(3) Unilateral divorce, no-fault settlement only	(4) Since
Alabama	√	√	no, fault settlement	1971
Alaska	√	√	√	pre 1968
Arizona	√	√	√	1973
Arkansas	no	no, separation req but separation must be mutually agreed	no	-
California	√	√	√	1970
Colorado	√	√	√	1971
Connnecticut	√	√	no, fault settlement	1973
Delaware	no	no	no	-
Dist Columbia	no	√, 1 year separation required	no, fault settlement	1977
Florida	√	√	no, fault settlement	1971
Georgia	√	√	no, fault settlement	1973
Hawaii	√	√	√	1973
Idaho	√	√	no, fault settlement	1971
Illinois	no	√, 2 year separation required	√	1984
Indiana	√	√	√	1973
Iowa	√	√	√	1970
Kansas	√	√	no, fault settlement	1969
Kentucky	√	√	√, 1987	1972
Louisiana	no	√, 1 year separation required	no, fault settlement	pre 1968
Maine	√	√	√	1973
Maryland	no	√, 5 yr separation req; then 2	no, fault settlement	pre 1968
Massachusetts	√	√	no, fault settlement	1975
Michigan	√	√	no, fault settlement	1972
Minnesota	√	√	√	1974
Mississippi	no	no	no	-
Missouri	no	√, 2 year separation required	√	1973

State	(1) Unilateral divorce	(2) Unilateral divorce, including separation requirements	(3) Unilateral divorce, no-fault settlement only	(4) Since
Montana	√	√	√	1975
Nebraska	√	√	√	1972
Nevada	√	√	√	1973
New Hampshire	√	√	no, fault settlement	1971
New Jersey	no	√, 18 mth separation required	no, fault settlement	1971
New Mexico	√	√	√	1973
New York	no	no	no	-
North Carolina	no	√, 1 year separation required, need agreement on alimony	no, fault settlement	pre 1968*
North Dakota	√	√	no, fault settlement	1971
Ohio	no	√, 1 year separation required	no, fault settlement	1974
Oklahoma	√	√	√, 1975	pre 1968
Oregon	√	√	√	1973
Pennsylvania	no	√, 3 year separation req, and court says marriage broken	no, fault settlement	1980*
Rhode Island	√	√	no, fault settlement	1976
South Carolina	no	√, 3 yr separation req; then 1	no, fault settlement	1969
South Dakota	√	√	no, fault settlement	1985
Tennessee	no	no, 2 yr separation if no kids	no	-
Texas	√	√	no, fault settlement	1974
Utah	no	√, 3 year separation required	no, fault settlement	pre 1968
Vermont	no	√, 6 mth separation required	no, fault settlement	pre 1968
Virginia	no	√, 2 year separation required	no, fault settlement	pre 1968
Washington	√	√	√	1973
West Virginia	no	√, 2 yr separation req; then 1	no, fault settlement	pre 1968
Wisconsin	no	√, 1 year voluntary separation; if one disputes, court decides if irreconcilable diffs	√	1977*
Wyoming	√	√	no, fault settlement	1977

(1) √, state has unilateral divorce. Unilateral divorce is defined as requiring the consent of only one spouse and granted on no-fault grounds. No-fault grounds include irretrievable breakdown, irreconcilable differences, and/or incompatibility.
(2) √, state has unilateral divorce, with the no-fault grounds now including separation for a required length of time.
(3) √, state has unilateral divorce, and also does not allow fault grounds to be considered for property settlement and alimony.
(4) Year when unilateral divorce instituted. If the law change occurred in the second half of the year, then it is attributed to the following year. * Definition of unilateral divorce is disputable. The estimation results were not found to be sensitive to the classification of these states.
Source: State annotated legal codes, Sepler (1981), Peters (1986), Freed and Walker (1990), Brinig and Buckley (1996).

TABLE 2: Divorce Rates, by States				
State	Average Divorce Rate: Divorces per 1000 people			
	1968-72	1973-77	1978-82	1983-88
Alabama	4.4	6.1	6.7	6.2
Alaska	5.6	7.6	8.5	7.2
Arizona	7.0	7.4	7.3	6.8
Arkansas	5.5	6.9	6.9	6.8
California	4.9	5.9	5.6	5.1
Colorado	4.7	6.4	6.3	5.8
Connecticut	2.1	3.6	4.3	3.7
Delaware	2.9	4.6	5.0	4.8
District of Columbia	3.3	4.6	6.2	4.2
Florida	5.8	7.2	7.2	6.7
Georgia	4.0	5.7	6.2	5.5
Hawaii	3.6	4.9	4.7	4.5
Idaho	4.9	6.2	6.8	6.1
Illinois	3.4	4.3	4.5	4.2
Indiana[1]	4.6	6.1	7.0	6.3
Iowa	2.6	3.5	3.9	3.7
Kansas	3.8	5.2	5.5	5.1
Kentucky	3.3	4.2	4.3	5.0
Louisiana[2]	2.7	3.2	3.8	3.6
Maine	3.7	4.9	5.5	5.0
Maryland	2.4	3.7	4.0	3.6
Massachusetts	2.1	2.8	3.1	3.2
Michigan	3.4	4.6	4.7	4.3
Minnesota	2.2	3.3	3.8	3.5
Mississippi	3.6	5.0	5.4	4.9
Missouri	3.9	5.0	5.5	5.0
Montana	4.4	5.7	6.2	5.3

State	1968-72	1973-77	1978-82	1983-88
Nebraska	2.5	3.6	4.1	3.9
Nevada	20.9	17.2	16.2	14.2
New Hampshire	3.5	5.0	5.5	4.8
New Jersey	1.7	2.8	3.6	3.6
New Mexico[3]	4.3	7.3	7.8	7.8
New York	1.5	3.0	3.5	3.7
North Carolina	2.8	4.0	4.8	4.9
North Dakota	1.7	2.7	3.3	3.4
Ohio	3.6	4.9	5.3	4.8
Oklahoma	6.3	7.6	7.8	7.4
Oregon	4.7	6.3	6.7	5.8
Pennsylvania	2.0	2.9	3.3	3.3
Rhode Island	1.6	3.0	3.7	3.8
South Carolina	2.3	3.3	4.3	4.1
South Dakota	2.1	3.2	3.9	3.7
Tennessee	4.2	6.1	6.5	6.3
Texas	4.7	5.9	6.6	5.9
Utah	3.8	4.9	5.3	5.1
Vermont	2.2	3.8	4.6	4.5
Virginia	2.6	3.8	4.5	4.3
Washington	5.3	6.9	6.8	6.0
West Virginia	3.0	4.5	5.3	5.0
Wisconsin	2.0	2.9	3.7	3.5
Wyoming	5.6	7.1	8.0	7.2

[1] Data are for 1968-69, 1974, 1976-87. [2] Data are for 1971-72, 1976, 1978-80, 1982-83. [3] Data are for 1970, 1974-80, 1983-85.
Averages across years computed using annual state population for weights.
Source: *Vital Statistics of the United States*.

TABLE 3: Regression Results

	Dependent Variable: Divorce Rate (Divorces per 1,000 people)				
Independent Variables:	3.1	3.2	3.3	3.4*	3.5
Unilateral	1.802 (0.087)	1.509 (0.090)	0.004 (0.056)	0.447 (0.050)	0.441 (0.055)
Adjusted R^2	0.314	0.362	0.946	0.976	0.982
Year Effects**	No	Yes, F=4.9	Yes, F=89.0	Yes, F=95.3	Yes, F=8.9
State Effects**	No	No	Yes, F=217.3	Yes, F=196.2	Yes, F=131.1
State Trend, Linear**	No	No	No	Yes, F=24.7 State trends and effects, F=256.0	Yes, F=9.3
State Trend, Quadratic**	No	No	No	No	Yes, F=6.5 State trends and effects, F=224.8

... continued on next page ...

Regressions of state divorce rates, 1968-88, on whether a state has a unilateral divorce law. Unilateral divorce law is defined according to column (1) of Table 1. Standard errors are in parentheses. Regressions are weighted by state population. N=1043. Data for some states in certain years is missing. For others it is incomplete, which is accounted for by a set of dummies described in the Appendix.

* The coefficients on the state effects and trends are shown in Table 6.

** All reported F-statistics have corresponding p-values that are smaller than 0.00005.

Dependent Variable: Divorce Rate (Divorces per 1,000 people)					
Independent Variables:	3.1	3.2	3.3	3.4*	3.5
Intercept	3.794 (0.057)	2.866 (0.195)	3.207 (0.175)	3.162 (0.222)	3.251 (0.276)
1969 year effect	-	0.225 (0.275)	0.236 (0.080)	0.221 (0.057)	0.196 (0.076)
1970	-	0.331 (0.276)	0.559 (0.081)	0.483 (0.066)	0.437 (0.123)
1971	-	0.510 (0.274)	0.775 (0.080)	0.682 (0.078)	0.614 (0.169)
1972	-	0.643 (0.274)	1.089 (0.081)	0.931 (0.093)	0.850 (0.211)
1973	-	0.837 (0.276)	1.365 (0.082)	1.163 (0.109)	1.062 (0.247)
1974	-	0.943 (0.275)	1.610 (0.083)	1.354 (0.126)	1.243 (0.279)
1975	-	1.232 (0.275)	1.840 (0.083)	1.574 (0.143)	1.454 (0.305)
1976	-	1.324 (0.273)	1.972 (0.083)	1.683 (0.160)	1.558 (0.326)
1977	-	1.269 (0.273)	1.922 (0.083)	1.623 (0.177)	1.496 (0.341)
1978	-	1.411 (0.271)	2.048 (0.083)	1.741 (0.194)	1.603 (0.352)
1979	-	1.571 (0.271)	2.211 (0.083)	1.895 (0.212)	1.760 (0.358)
1980	-	1.540 (0.270)	2.189 (0.082)	1.866 (0.230)	1.733 (0.360)
1981	-	1.558 (0.272)	2.217 (0.083)	1.889 (0.247)	1.765 (0.358)
1982	-	1.286 (0.270)	1.974 (0.082)	1.639 (0.265)	1.524 (0.353)
1983	-	1.202 (0.269)	1.873 (0.082)	1.528 (0.283)	1.423 (0.345)
1984	-	1.207 (0.272)	1.906 (0.083)	1.481 (0.301)	1.394 (0.336)
1985	-	1.200 (0.272)	1.913 (0.083)	1.476 (0.319)	1.416 (0.328)
1986	-	1.197 (0.270)	1.823 (0.083)	1.386 (0.337)	1.345 (0.323)
1987	-	1.105 (0.268)	1.691 (0.082)	1.337 (0.355)	1.319 (0.323)
1988	-	1.158 (0.280)	1.728 (0.085)	1.227 (0.373)	1.220 (0.330)

TABLE 4: Alternative Classifications of Divorce Laws

Dependent Variable: Divorce Rate (Divorces per 1,000 people)		3.4	4.1	4.2	4.3	4.4
Unilateral Defined as:		0.447 (0.050)	0.450 (0.050)	0.454 (0.050)	0.545 (0.068)	0.549 (0.067)
Grounds for divorce	Other no-fault	√	√	√	√	√
	Separation					
Grounds for property	No-fault	√	√	√	√	√
	Fault	√	√	√		
Grounds for divorce: Separation		-	0.167 (0.059) [0.0002]	-	-	-
Separation for 6 months		-	-	0.145 (0.616)	-	-
12 months		-	-	0.511 (0.100)	-	-
18 months		-	-	-0.111 (0.156)	-	-
24 months		-	-	0.085 (0.097)	-	-
36 months		-	-	0.055 (0.111)	-	-
60 months		-	-	0.191 (0.216)	-	-
Grounds for property: Fault		-	-	-	0.392 (0.056) [0.033]	-
Grounds for divorce: Other no-fault Grounds for property: Fault		-	-	-	-	0.396 (0.056)
Grounds for divorce: Separation Grounds for property: No-fault		-	-	-	-	0.133 (0.091)
Grounds for divorce: Separation Grounds for property: Fault		-	-	-	-	0.192 (0.078)
Adjusted R^2		0.976	0.976	0.976	0.976	0.976

See the notes to Table 3 for more detail. See the notes to Table 1 for a discussion of the classification of state divorce laws. Standard errors in parentheses. Reported in brackets are p-values of the F-statistics testing the equality of the two coefficients.

TABLE 5: The Timing of the Response to Unilateral Divorce

	Dependent Variable: Divorce Rate (Divorces per 1,000 people)						
	3.4	5.1	5.2	5.3	5.4		5.5
Unilateral	0.447 (0.050)	0.449 (0.057)	0.468 (0.054)	0.489 (0.060)	0.536 (0.065)		0.438 (0.055)
Dummy for law change occurring:						Sample restricted to:	1968-1979
1 period later	-	0.004 (0.067)	-	-	-		-
In this period	-	-	-0.060 (0.062)	-0.076 (0.065)	-0.117 (0.069)		-
1 period ago	-	-	-	-0.055 (0.063)	-0.090 (0.066)		-
2 periods ago	-	-	-	-	-0.108 (0.062)		-
Adjusted R^2	0.976	0.976	0.976	0.976	0.976		0.983

See the notes to Table 3 for more detail. Standard errors are in parentheses. Regressions include year effects, state effects, and linear state trends. Unilateral divorce is defined here according to column (1) of Table 1.

TABLE 6: Coefficients on State Fixed Effects and Trends in Regression 3.4

State	Coefficient (Std Error) on: Fixed Effect	Trend	State	Coefficient (Std Error) on: Fixed Effect	Trend
NORTHEAST			West Virginia	-0.666 (0.275)	0.068 (0.023)
Maine	-	-	Nth Carolina	-1.116 (0.239)	0.081 (0.020)
New Hampshire	-0.080 (0.333)	-0.001 (0.027)	South Carolina	-1.572 (0.257)	0.063 (0.022)
Vermont	-1.481 (0.395)	0.086 (0.033)	Georgia	0.451 (0.241)	0.011 (0.020)
Massachusetts	-1.741 (0.238)	-0.016 (0.020)	Florida	2.238 (0.234)	-0.033 (0.019)
Rhode Island	-2.125 (0.317)	0.046 (0.027)	EAST SOUTH CENTRAL		
Connecticut	-1.552 (0.253)	0.018 (0.021)	Kentucky	-0.863 (0.251)	0.051 (0.021)
MIDDLE ATLANTIC			Tennessee	0.633 (0.245)	0.070 (0.021)
New York	-2.271 (0.225)	0.076 (0.019)	Alabama	0.773 (0.249)	0.027 (0.021)
New Jersey	-2.156 (0.234)	0.067 (0.020)	Mississippi	0.102 (0.266)	0.019 (0.023)
Pennsylvania	-1.845 (0.228)	0.028 (0.019)	WEST SOUTH CENTRAL		
EAST NORTH CENTRAL			Arkansas	1.827 (0.271)	0.017 (0.023)
Ohio	0.105 (0.230)	0.013 (0.020)	Louisiana	-1.600 (0.329)	0.034 (0.030)
Indiana	1.412 (0.345)	-0.014 (0.022)	Oklahoma	2.150 (0.290)	0.016 (0.023)
Illinois	-0.235 (0.229)	-0.014 (0.019)	Texas	1.043 (0.228)	-0.003 (0.019)
Michigan	-0.276 (0.232)	-0.032 (0.020)	MOUNTAINS		
Wisconsin	-1.823 (0.243)	0.041 (0.021)	Montana	0.943 (0.342)	-0.031 (0.029)
WEST NORTH CENTRAL			Idaho	1.235 (0.336)	-0.003 (0.028)
Minnesota	-1.539 (0.247)	-0.003 (0.021)	Wyoming	2.214 (0.433)	0.006 (0.035)
Iowa	-1.428 (0.257)	-0.000 (0.022)	Colorado	1.114 (0.263)	-0.013 (0.022)
Missouri	0.319 (0.242)	0.010 (0.020)	New Mexico	0.973 (0.662)	0.146 (0.063)
North Dakota	-2.396 (0.357)	0.035 (0.030)	Arizona	2.289 (0.327)	-0.026 (0.025)
South Dakota	-1.572 (0.349)	0.024 (0.029)	Utah	0.076 (0.301)	0.027 (0.025)
Nebraska	-1.416 (0.285)	0.013 (0.024)	Nevada	16.679 (0.368)	-0.453 (0.029)
Kansas	-0.096 (0.266)	0.012 (0.022)	PACIFIC		
SOUTH ATLANTIC			Washington	1.905 (0.249)	-0.047 (0.021)
Delaware	-0.656 (0.368)	0.054 (0.031)	Oregon	1.285 (0.266)	-0.020 (0.022)
Maryland	-1.112 (0.246)	0.010 (0.021)	California	1.171 (0.227)	-0.072 (0.019)
Dist. Columbia	-0.243 (0.349)	0.047 (0.032)	Alaska	2.120 (0.444)	0.022 (0.035)
Virginia	-1.164 (0.241)	0.054 (0.020)	Hawaii	0.046 (0.329)	-0.039 (0.027)

Figure 1

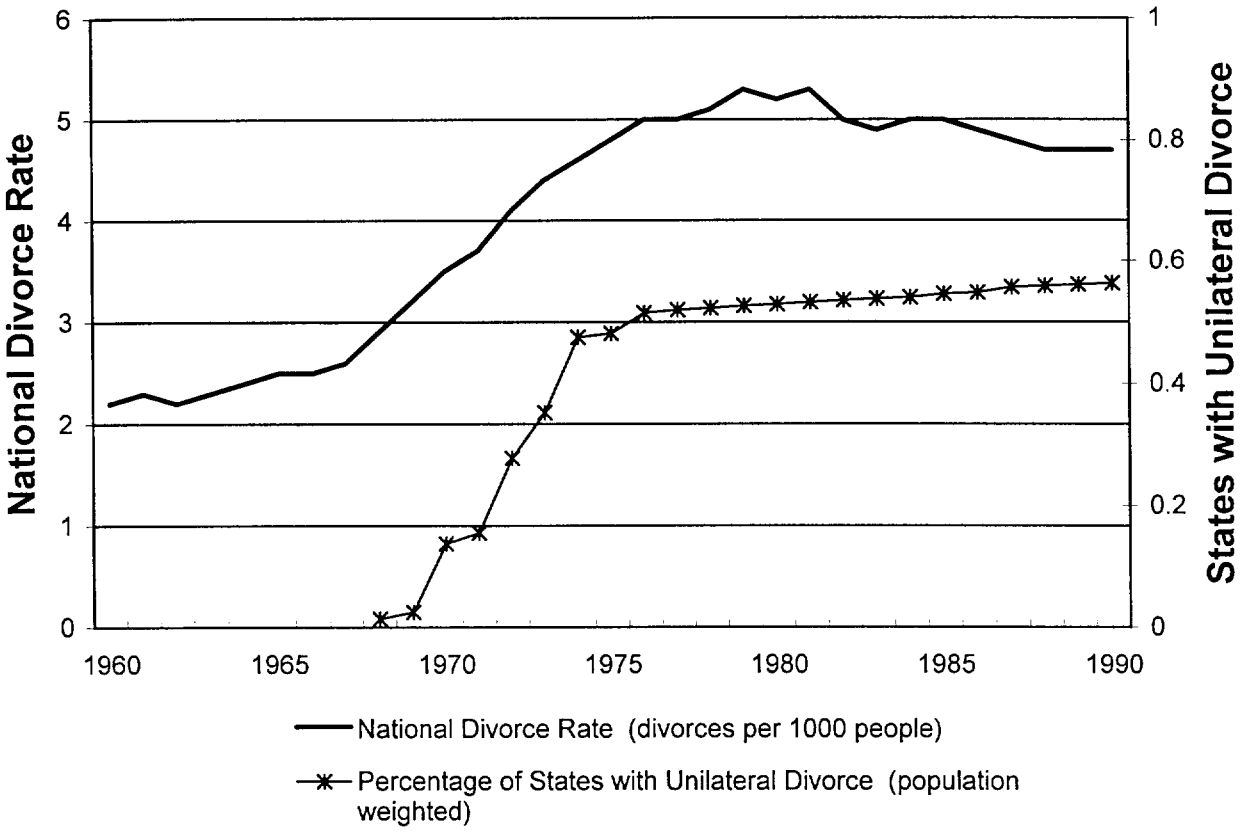

National Divorce Rate
States with Unilateral Divorce
6
5
4
3
2
1
0
1
0.8
0.6
0.4
0.2
0
1960
1965
1970
1975
1980
1985
1990
National Divorce Rate (divorces per 1000 people)
Percentage of States with Unilateral Divorce (population weighted)

Figure 2-A
CALIFORNIA

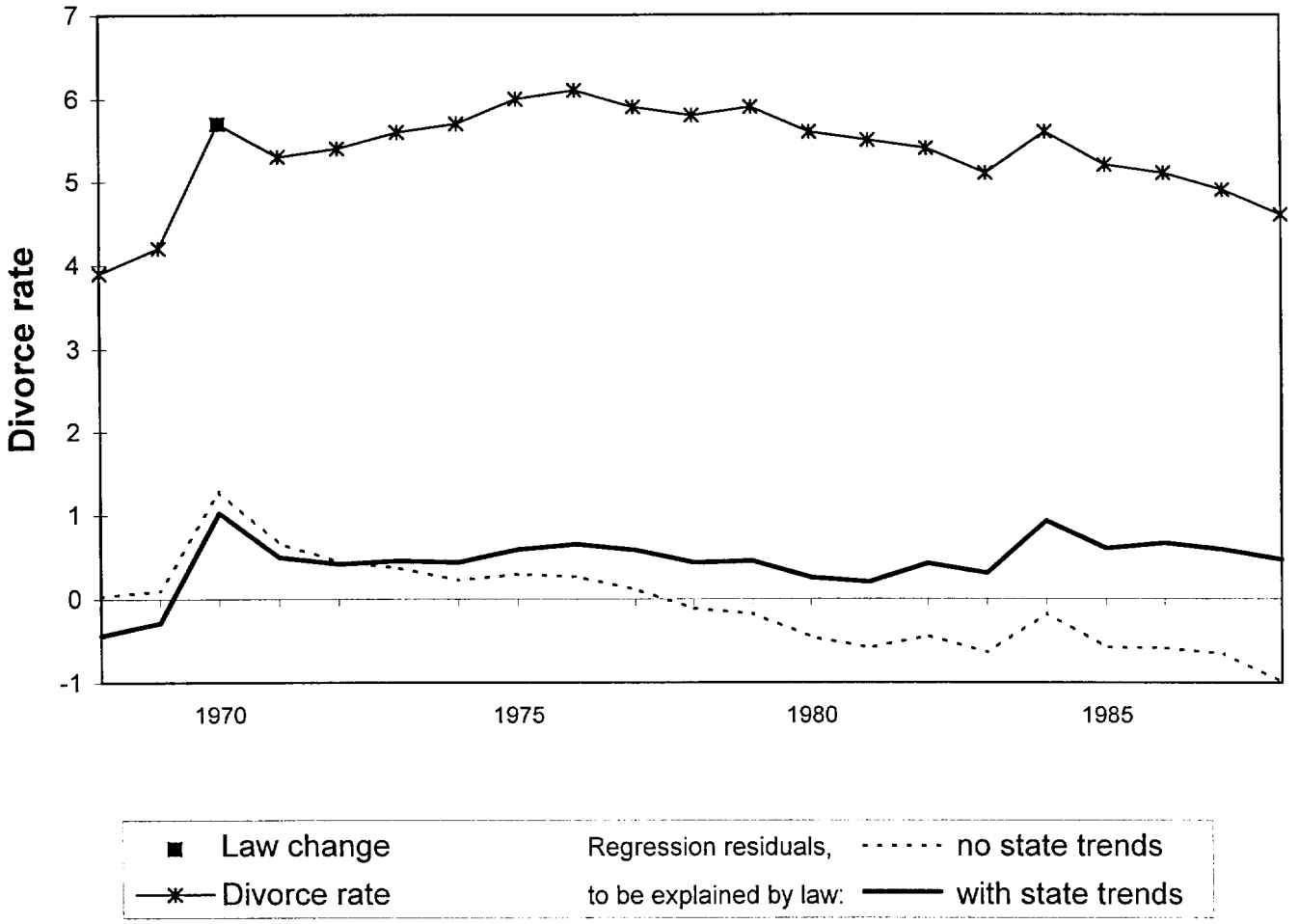
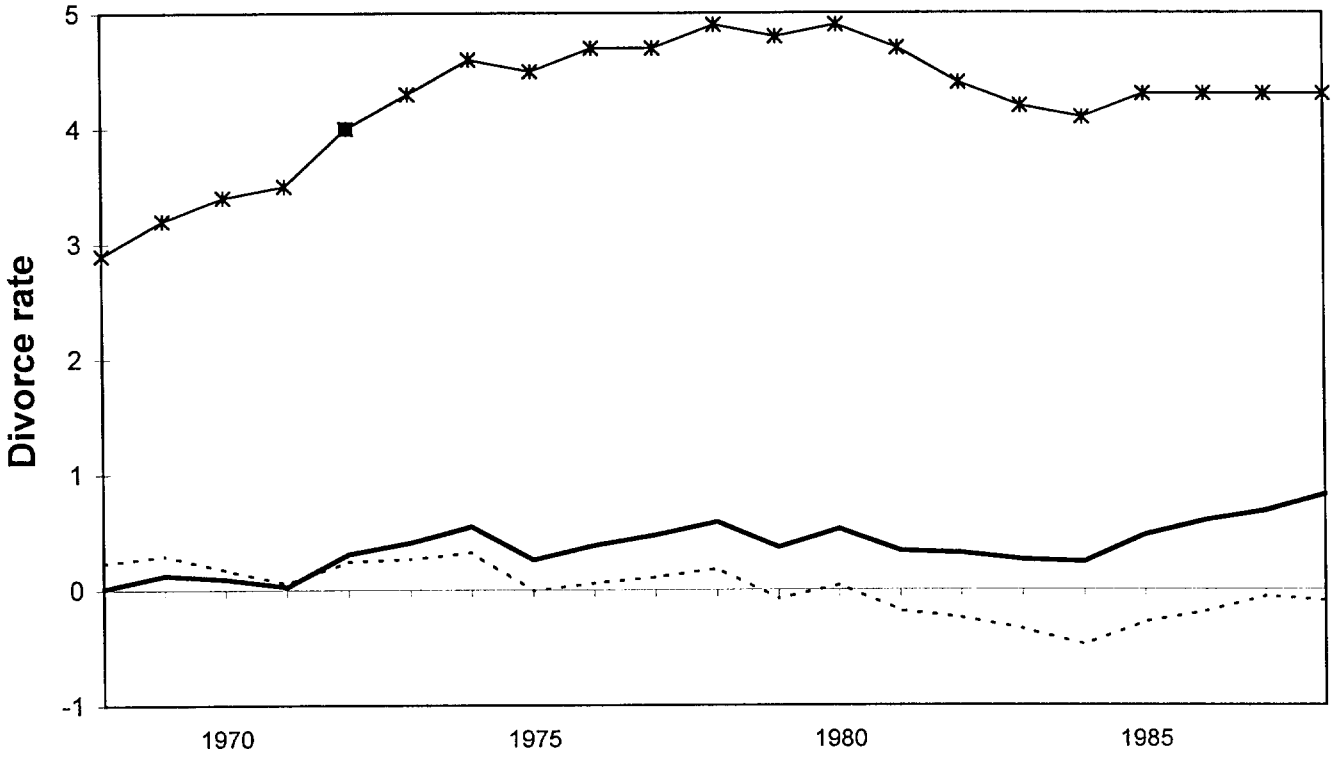


Figure 2-B
MICHIGAN



■ Law Change

—✳— Divorce rate

Regression residuals, ····· no state trends

to be explained by law: —— with state trends