

## Letter

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# The Long-Term Effects of Unilateral Divorce Laws on the Noncognitive Skill of Conscientiousness

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**Abstract:** This paper provides the first causal evidence of the effect of a change in divorce laws on noncognitive skills in adulthood. We exploit state-cohort variation in the adoption of unilateral divorce laws in the U.S. to assess whether children exposed to this law have different noncognitive skills in adulthood compared to those never exposed or exposed as adults. Using data from the National Survey of Midlife Development in the U.S. (MIDUS) and employing the staggered difference-in-differences identification strategy developed by Callaway and Sant’Anna, we show that divorce reform had a detrimental long-term effect on the conscientiousness of those who were exposed as children whether their parents divorced or not. Changes in parental inputs can explain most of the effect, which is greatest for men whose parents divorced.

**Keywords:** noncognitive skills; unilateral divorce laws; conscientiousness; parenting style; MIDUS

**JEL Classification:** J12; J13; J24; K36

## 1 Introduction

Noncognitive skills are important determinants of economic outcomes (Lindqvist and Vestman 2011). While these skills are malleable throughout one’s life, much of

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their development takes place in childhood and adolescence (e.g. Mike et al. 2015). Family instability in childhood adversely affects noncognitive skills (e. g. Peter and Spiess 2016), but the underlying causal mechanisms are not well understood.<sup>1</sup> To fill this gap, we use the exogenous change in the probability of divorce resulting from the staggered adoption of unilateral (no-fault) divorce laws in U.S. states to identify the causal effect of a change in family environment on noncognitive skills in adulthood. Many states have shifted to this divorce regime, which enables people to leave the marriage without spousal consent (see Appendix A Table A1; Gruber 2004).

The switch to unilateral divorce laws may have affected children's noncognitive skills by initially increasing divorce rates and by reducing marriage-specific investments (Kneip, Bauer, and Reinhold 2014; Lee and Solon 2011; Stevenson 2007; Wolfers 2006). Especially likely to be impacted are those noncognitive skills whose formation is most dependent on parental attention and resources. In this study, we focus on conscientiousness, which is likely affected by parental inputs and family stability (Eisenberg et al. 2014). Conscientious individuals are more goal-oriented and responsible, strive to do well, and have greater self-control (Mike et al. 2015). Unsurprisingly, higher levels of conscientiousness lead to better economic outcomes, such as higher income and job satisfaction (Judge, Thoresen, and Barrick 1999), and better health (see, e.g. Roberts et al. 2011).

We utilize data from the National Survey of Midlife Development in the U.S. (MIDUS) and employ the staggered differences-in-differences methodology developed by Callaway and Sant'Anna (2021) that in contrast to the conventional difference-in-differences approach exploits only the relevant variation in treatment timing. We find evidence of adverse long-term effects of divorce reform on the conscientiousness of women and men who were children after unilateral divorce became legal.

## 2 Divorce Laws and Conscientiousness

Following Cunha and Heckman (2007), we think of the formation of noncognitive skills as the result of parental investment and skills in the previous period, with the productivity of the investment depending on parental characteristics and initial skill conditions. Conscientiousness is thus affected by the quality and quantity of parental investment, and is, for example, positively associated with secure

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<sup>1</sup> Recent work found that parental maltreatment and neglect is associated with lower noncognitive skills at age 30 (Fletcher and Schurer 2017) and that mothers' engagement positively affects their offspring's locus of control in adulthood (Elkins and Schurer 2020).

attachment and parental involvement and warmth, and negatively associated with parental power assertion, low family income, and parental stress (Akee et al. 2018; Amato 2005; Eisenberg et al. 2014; Mike et al. 2015; Tackman et al. 2017).

The introduction of unilateral divorce laws can affect parental investment through two channels: by increasing the likelihood of parental divorce as a result of the removal of the need for spousal consent; and by changing intra-family behavior and selection into marriage because of the increased ease of divorce.

Parental divorce may lower both the quantity and quality of parental investment. Divorced fathers and mothers spend significantly less time with their children (Amato 2005; Del Boca, Flinn, and Wiswall 2014; Hamermesh 2022; McLanahan, Tach, and Schneider 2013). The quality of parental investment might also be reduced because divorce reduces financial resources, which increases the likelihood of childhood disadvantage and thus early-life stressors (Amato 2005). Moreover, divorce lowers the quality of maternal investment because divorced mothers are more stressed and less satisfied with their lives (Amato 2005; Hamermesh 2022).

Easier divorce has changed intra-family bargaining and selection into marriage. The net effects on children are theoretically ambiguous. Unilateral divorce laws have reduced marriage-specific investments and increased mothers' labor force participation (e.g. Angelini et al. 2019; Gendek, Stock, and Stoddard 2007; Stevenson 2007), though Voena (2015) finds the opposite effect for states with equal division of property laws. The effect of increased labor force participation depends on how increased work hours affect women's life satisfaction and stress levels, as well as their marriage quality (Goldin 2006). It is possible that the change in the selection into marriage improved spousal match quality, improving the family environment and quality of parental investment (Angelini et al. 2019; Kneip, Bauer, and Reinhold 2014). For example, unilateral divorce laws reduced physical abuse in families (Stevenson and Wolfers 2006). But it is also possible that they resulted in more children growing up with unmarried parents and higher family instability (Reinhold, Kneip, and Bauer 2013; Stevenson and Wolfers 2007). We discuss how we assess the importance of each channel and the net effects in Section 4.

### 3 Data

We use data from the restricted version of the 1995 MIDUS, a nationally representative survey of the U.S. adult population. MIDUS contains noncognitive outcomes of a large number of birth cohorts as well as information on parental inputs, which allows us to estimate the long-term impact of the introduction of unilateral divorce laws and potential underlying pathways.

To construct a dataset linking the outcome in year  $t$  to the law adoption information, we reshaped the data, generating repeated observations by individual across calendar years. Then, for each year between 1960 and 1980, we kept the respondents under age 18, which were potentially affected by the law. The 21-year span is dictated by the timing of laws and the number of available observations in each year. The resulting sample includes 8238 repeated observations of men and 8658 observations of women, with 16.9 % of observations in the years following a divorce reform. This sample transformation enables us to include a time variable that can be aligned with the policy variable, which is required for staggered difference-in-differences estimation, and ensures that we compare the outcomes of same-age respondents before and after the reform.

Since MIDUS only provides information on the current state of residence we use this to determine exposure to unilateral divorce laws. Restricting the sample to those who lived in the current state of residence before and after the reform or moved to the state within three years after the reform yields similar results (available upon request).

We construct the measure of conscientiousness using factor analysis by combining the traits of being organized, responsible, hardworking, and careless, measured between the ages of 25 and 52, and adjusting it by age (see Appendix A Table A2).

To investigate potential mechanisms, we construct monetary and nonmonetary parental inputs that are measured using retrospective questions about the family environment when growing up. *Raised in a Poor Family* is equal to one if the family was on welfare and/or had a below-average income. *Maternal (Paternal) Affection and Maternal (Paternal) Discipline* reflect parenting strategies and are

**Table 1:** Summary statistics.

Variables	All men	All women	Men		Women	
			Treated	Control	Treated	Control
Conscientiousness	0.133	-0.127	0.227	0.114	0.730	0.764
Age	9.746	9.798	11.287	9.433	11.553	9.439
Has same-sex sibling	0.758	0.764	0.730	0.764	0.766	0.764
Raised in a poor family	0.247	0.275	0.108	0.107	0.204	0.149
Maternal affection	0.139	-0.132	0.144	0.138	-0.178	-0.123
Maternal discipline	-0.074	0.070	-0.130	-0.062	-0.095	0.104
Paternal affection	0.059	-0.056	0.059	0.059	-0.124	-0.042
Paternal discipline	0.073	-0.070	0.056	0.077	-0.050	-0.074

This table shows means and refers to all MIDUS respondents who were 0–17 years old between 1960 and 1980.

based on factor analysis (see Appendix A Table A3). The summary statistics for all variables are shown in Table 1.

## 4 Empirical Approach

To assess the impact of unilateral divorce laws on conscientiousness, we exploit cross-state differences in the timing of the law adoption and the differential exposure across cohorts (see, e.g. Gruber 2004; Hoehn-Velasco and Silverio-Murillo 2020). We employ staggered difference-in-differences (Callaway and Sant'Anna 2021; Sant'Anna and Zhao 2020), which accounts for time variation in law adoption and allows for heterogenous effects by treatment period.<sup>2</sup> We refrain from using the conventional difference-in-differences because it only distinguishes between treatment and control states and produces biased estimates when treatment occurs over multiple time periods (Borusyak et al. 2023; Sun and Abraham 2021). Our estimation approach relies on the parallel trend assumption that outcomes in adopting and non-adopting states would follow the same trend in the absence of the reform. We also assume that there were no group-specific unobserved shocks correlated with the outcome that occurred at the same time as states changed the divorce laws.

We estimate the following model linking the *Conscientiousness*  $C$  of individual  $i$  from group  $g$  (set of states that adopted the law in the same year) to the divorce reform:

$$C_{ig} = \alpha + \mu_t + \pi_g + \beta \text{ Unilateral Divorce Law}_g + \theta X_{igt} + \varepsilon_{igt}, \quad (1)$$

where *Unilateral Divorce Law* <sub>$g$</sub>  is a time-invariant policy variable that denotes the year of the policy shift for adopting states and equals zero for non-adopting ones. The treatment begins when the calendar year in the time variable,  $\mu_t$ , matches the year of the reform in the *Unilateral Divorce Law* <sub>$g$</sub>  variable. The year fixed-effects,  $\mu_t$ , control for the aggregate unobserved influences on conscientiousness that vary over time, and the group fixed-effects,  $\pi_g$ , capture time-invariant unobserved group characteristics that might affect selection into treatment. Our coefficient of interest,  $\beta$ , measures the long-run effect of growing up in a state that introduced unilateral divorce. The vector of controls,  $X_{igt}$ , includes dummies for children's age in year  $t$  and sibling sex composition, which is an important determinant of noncognitive skills (Hayduk and Toussaint-Comeau 2022), as well as covariate- and cohort-specific time trends. Standard errors are clustered at the state level. We split the sample by gender because boys and girls respond differently to changes in the family environment (Gill and Kleinjans 2020).

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<sup>2</sup> We use the `csdid` command in Stata (Rios-Avila et al. 2022).

To identify potential channels, we estimate equation (1) with parental inputs as outcome variables (as a measure of quantity and quality of parental investment) and restrict the sample to respondents with non-divorced parents. This provides insights into the effect of changes in selection into marriage and within-family bargaining on children's outcomes.

## 5 Results

Table 2 presents main results for men (column 1) and women (column 3). Both men and women who were exposed to unilateral divorce laws in childhood report lower levels of conscientiousness in adulthood. The results are statistically significant at  $-0.226$  standard deviations for men and  $-0.165$  standard deviations for women.<sup>3</sup> These are large effects, corresponding to 56 % and 77 % of the difference in

**Table 2:** The effects of unilateral divorce laws on conscientiousness.

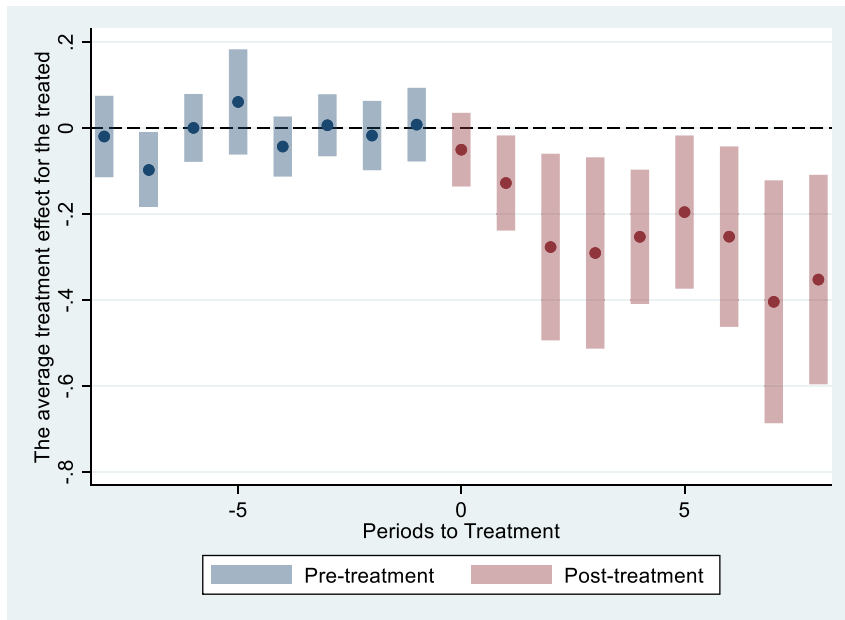
	Men		Women	
	(1)	(2)	(3)	(4)
Unilateral divorce law	$-0.226^{***}$ (0.056)	$-0.116$ (0.072)	$-0.165^{***}$ (0.059)	$-0.053$ (0.063)
Controls	✓	✓	✓	✓
Parental inputs		✓		✓
Year & group FE	✓	✓	✓	✓
Covariate- and cohort-specific time trends	✓	✓	✓	✓
Observations	8238	8238	8658	8658
Mean of dependent variable	0.133	0.133	$-0.127$	$-0.127$

The estimated coefficients of the policy variable unilateral divorce law are obtained using staggered difference-in-differences models and interpreted as a standard-deviation change in conscientiousness. Controls include age dummies and a dummy for having a same-sex sibling. Parental inputs include poverty status in childhood, maternal affection, maternal discipline, paternal affection, and paternal discipline. Standard errors clustered at the state level are shown in parentheses.  $***p < 0.01$ ;  $**p < 0.05$ ;  $*p < 0.1$ .

<sup>3</sup> These results are roughly consistent with the downward-biased conventional difference-in-differences estimates (see Table A4 in the Appendix A) and Gruber (2004) who documents adverse long-run effects of divorce reform on exposed children.

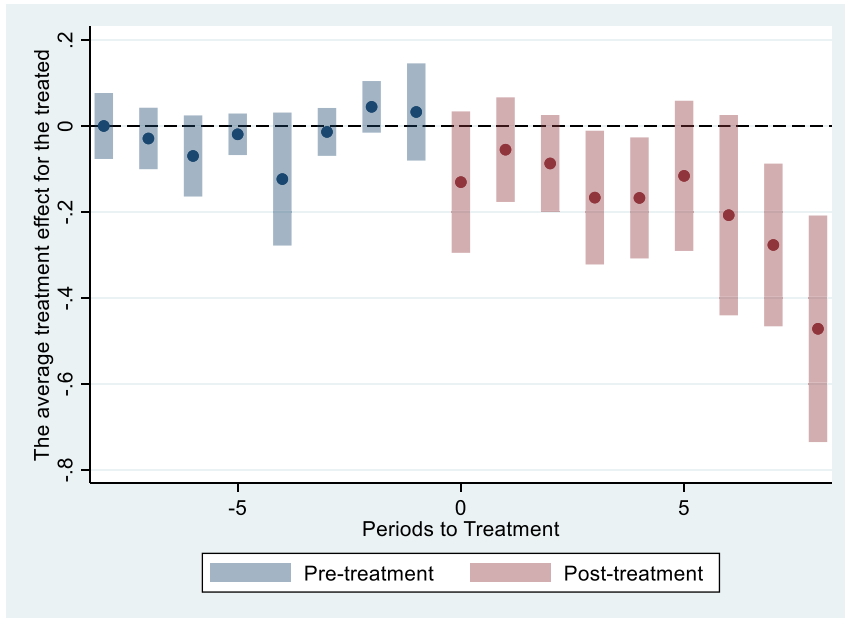
conscientiousness between college graduates and respondents without a college degree in our sample.<sup>4</sup>

Figures 1 and 2 show the disaggregated pre- and post-reform effects, indicating that there are no differential pre-trends in outcomes between adopting and non-adopting states. This supports our interpretation that it was indeed the law change that caused the reduction in conscientiousness. While standard errors increase after the onset of the reform because of our sample composition, the overall trend is towards increasing effects with later exposure. This aligns with the interpretation that (married and unmarried) couples' responses to the law change increased



**Figure 1:** Effect of unilateral divorce laws on conscientiousness by time to exposure, men. The plotted coefficients were estimated using staggered difference-in-differences. The dependent variable is conscientiousness, and the model includes year and group fixed effects as well as age dummies, an indicator for having same-sex siblings, and covariate- and cohort-specific time trends. Standard errors are clustered at the state level.

<sup>4</sup> In contrast, results for the other four of the Big 5 personality traits – extraversion, openness, agreeableness, and emotional stability – show big gender differences (results not shown) subject to the caveat of less convincing parallel pre-trends. There is no or only a small effect for men, and strong negative effects for women similarly in size to our finding for conscientiousness except for a much smaller effect for agreeableness.



**Figure 2:** Effect of unilateral divorce laws on conscientiousness by time to exposure, women. The plotted coefficients were estimated using staggered difference-in-differences. The dependent variable is conscientiousness, and the model includes year and group fixed effects as well as age dummies, an indicator for having same-sex siblings, and covariate- and cohort-specific time trends. Standard errors are clustered at the state level.

over time since they have more time to adjust their behavior and investments into marriage-specific capital. A placebo regression switching the year of the law change from  $t_0$  to  $t_{-2}$  shows that these results do not stem from unobserved shocks affecting conscientiousness that coincided in timing with the introduction of unilateral divorce (see Figure A1 in the Appendix A).

Columns (2) and (4) in Table 2 show the results when we control for parental inputs during childhood. These controls take out the effect of the introduction of unilateral divorce on these three variables, including the effect of parental divorce on the likelihood of growing up poor. But it is informative because it shows whether conscientiousness was affected by factors above and beyond the effect of divorce law changes on parental inputs. Controlling for parental inputs renders the effect of being exposed to unilateral divorce laws statistically insignificant for both genders, with coefficients decreasing by over 50 %. The effects on men's and women's conscientiousness are thus driven by changes in parental affection, parental discipline, and the family's financial status in childhood.



Table 3: The effects of unilateral divorce laws on parental inputs.

	Raised in poor family (1)	Maternal affection (2)	Maternal discipline (3)	Paternal affection (4)	Paternal discipline (5)
<b>Panel A: Men</b>					
Unilateral divorce law	-0.107*** (0.029)	-0.106** (0.048)	-0.034 (0.056)	0.123*** (0.039)	0.157** (0.068)
Controls	✓	✓	✓	✓	✓
Year & group FE	✓	✓	✓	✓	✓
Covariate- and cohort-specific time trends	✓	✓	✓	✓	✓
Observations	8238	8238	8238	8238	8238
Mean of dependent variable	0.247	0.139	-0.074	0.059	0.073
<b>Panel B: Women</b>					
Unilateral divorce law	0.053* (0.023)	-0.160*** (0.061)	-0.016 (0.063)	-0.145** (0.065)	0.062 (0.064)
Controls	✓	✓	✓	✓	✓
Year & group FE	✓	✓	✓	✓	✓
Covariate- and cohort-specific time trends	✓	✓	✓	✓	✓
Observations	8658	8658	8658	8658	8658
Mean of dependent variable	0.274	-0.132	0.070	-0.056	-0.070

The estimated coefficients on the policy variable unilateral divorce law are obtained using the staggered difference-in-differences methodology and interpreted as a change in parental inputs. Controls include age dummies and a dummy for having a same-sex sibling. Standard errors clustered at the state level are shown in parentheses. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ .

To investigate how parental investment has responded to the change in divorce law, we estimate its effects using the same empirical model as before. The impacts differ by gender, as can be seen in Table 3. Being exposed to unilateral divorce laws reduced men's probability of growing up poor by almost 11 %-points (shown in Panel A). This is an intriguing finding given that parental divorce increases child poverty and that, in contrast, exposed women are 5.3 % more likely to have grown up poor (shown in Panel B).

Both men and women report less maternal affection (women more so than men) and no change in maternal discipline. The change in fathers' behavior differs by their child's gender. Men report more paternal affection and discipline, while women report less paternal affection and no change in paternal discipline. To separate the effect of divorce from changes in intrafamily bargaining and selection, we estimate our models on the subsample of individuals whose parents did not divorce. The effect on conscientiousness decreases slightly for women but by over a third for men, rendering their coefficients very similar (see Table 4). It seems thus that the gender difference we find in the complete sample is driven by the differential effects of parental divorce on conscientiousness. We also find some gender differences in parental investment for this subgroup (see Table 5). There is no effect on

**Table 4:** The effects of unilateral divorce laws on conscientiousness, excluding those with divorced parents.

	Men		Women	
	(1)	(2)	(3)	(4)
Unilateral divorce law	-0.141* (0.078)	-0.009 (0.095)	-0.150** (0.073)	-0.071 (0.091)
Controls	✓	✓	✓	✓
Parental inputs		✓		✓
Year & group FE	✓	✓	✓	✓
Covariate- and cohort-specific time trends	✓	✓	✓	✓
Observations	7116	7116	7003	7003
Mean of dependent variable	0.127	0.127	-0.117	-0.117

The sample is restricted to the respondents with non-divorced parents. The estimated coefficients on the policy variable unilateral divorce law are obtained using the staggered difference-in-differences methodology and interpreted as a standard-deviation change in conscientiousness. Controls include age dummies and a dummy for having a same-sex sibling. Parental inputs include poverty status in childhood, maternal affection, maternal discipline, paternal affection, and paternal discipline. Standard errors clustered at the state level are shown in parentheses. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ;

\* $p < 0.1$ .

**Table 5:** The effects of unilateral divorce laws on parental inputs, excluding those with divorced parents.

	Raised in poor family (1)	Maternal affection (2)	Maternal discipline (3)	Paternal affection (4)	Paternal discipline (5)
<b>Panel A: Men</b>					
Unilateral divorce law	-0.015 (0.018)	-0.123*** (0.039)	0.079 (0.075)	0.070 (0.064)	0.167*** (0.057)
Controls	✓	✓	✓	✓	✓
Year & group FE	✓	✓	✓	✓	✓
Covariate- and cohort-specific time trends	✓	✓	✓	✓	✓
Observations	7166	7166	7166	7166	7166
Mean of dependent variable	0.077	0.189	-0.021	0.166	0.152
<b>Panel B: Women</b>					
Unilateral divorce law	0.024 (0.023)	-0.200*** (0.059)	0.015 (0.046)	-0.249** (0.065)	-0.035 (0.076)
Controls	✓	✓	✓	✓	✓
Year & group FE	✓	✓	✓	✓	✓
Covariate- and cohort-specific time trends	✓	✓	✓	✓	✓
Observations	7003	7003	7003	7003	7003
Mean of dependent variable	0.115	-0.061	0.136	0.061	0.028

The sample is restricted to the respondents with non-divorced parents. The estimated coefficients on the policy variable unilateral divorce law are obtained using the staggered difference-in-differences methodology and interpreted as a change in parental inputs. Controls include age dummies and a dummy for having a same-sex sibling. Standard errors clustered at the state level are shown in parentheses. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

growing up poor for either gender and a slightly bigger negative effect on maternal affection for both compared to the complete sample. Results for maternal discipline and paternal discipline are unchanged. We find a smaller (and not statistically significant) increase in paternal affection for men and a bigger decrease in paternal affection for women.

We interpret these results as follows. Exposure to unilateral divorce laws reduced men's and women's conscientiousness through its effect on divorce rates as well as parental investment and couple formation, with men's conscientiousness responding more negatively to parental divorce than women's. However, this greater adverse effect for men is partially offset by increased paternal affection and financial resources. Divorced fathers may spend more time with their sons to compensate for their greater vulnerability to family disadvantage and nontraditional family structures (Bertrand and Pan 2013; Lei and Lundberg 2020).<sup>5</sup> In contrast, parental divorce increases women's likelihood of growing up poor.

Changes in parental investment and couple formation of parents who did not divorce lowered maternal affection for men and women, lowered paternal affection for women, and increased paternal discipline for men, reducing conscientiousness of both genders. This is consistent with the previously discussed established effects of unilateral divorce laws on intrafamily bargaining and selection into marriage.

## 6 Conclusions

This paper uses the exogenous adoption of unilateral divorce laws to examine the causal link between family environment and conscientiousness in adulthood. We employ the staggered differences design developed by Callaway and Sant'Anna (2021), which eliminates the potential bias in results obtained from traditional difference-in-differences estimations. We find that being exposed to unilateral divorce laws in childhood reduces conscientiousness in adulthood. For women, this effect can be explained by an increased risk of growing up poor and reduced parental inputs. In contrast, men's stronger response is partially offset by increased paternal discipline and, in the case of parental divorce, by increased resources and paternal affection. Since conscientiousness is predictive of an array of socio-economic outcomes our results help explain why adverse effects of parental divorce persist into adulthood.

**Acknowledgments:** We are grateful to Pedro Sant'Anna and Fernando Rios-Avila for helping us implement their estimator, and to Daniel Hamermesh, Justin

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<sup>5</sup> The literature on this is mixed, see Cheadle, Amato, and King (2010) for an overview.

Wolfers, and two anonymous reviewers for helpful comments on an earlier version of this paper. This study uses the restricted data available from the Institute on Aging at the University of Wisconsin-Madison.

## Appendix A

**Table A1:** Timeline of unilateral divorce laws in the United States.

State	Date	State	Date
Alabama	1971	Montana	1973
Alaska	1935	Nebraska	1972
Arizona	1973	Nevada	1967
Arkansas		New Hampshire	1971
California	1970	New Jersey	
Colorado	1972	New Mexico	1933
Connecticut	1973	New York	
Delaware	1968	North Carolina	
Florida	1971	North Dakota	1971
Georgia	1973	Ohio	
Hawaii	1972	Oklahoma	1953
Idaho	1971	Oregon	1971
Illinois		Pennsylvania	
Indiana	1973	Rhode Island	1975
Iowa	1970	South Carolina	
Kansas	1969	South Dakota	1985
Kentucky	1972	Tennessee	
Louisiana		Texas	1970
Maine	1973	Utah	1987
Maryland		Vermont	
Massachusetts	1975	Virginia	
Michigan	1972	Washington	1973
Minnesota	1974	West Virginia	
Mississippi		Wisconsin	1978
Missouri		Wyoming	1977

Source: Gruber (2004).

**Table A2:** Factor loadings for conscientiousness.

	<b>Factor 1</b>
Organized	0.5223
Responsible	0.6238
Hardworking	0.5107
Careless (reverse-coded)	0.3617

We retain factor 1 because this factor has an eigenvalue over one. We chose the personality traits organized, responsible, hardworking, and careless following the survey methodology. As shown in the table, being responsible has the highest weight, followed by being organized and being hardworking. Because noncognitive skills evolve in adulthood, we use an age-adjusted measure derived by regressing conscientiousness on the second-order age polynomial and its interactions with gender for the control group before our study period, 1938–1960, and then using the predicted residuals to detrend, standardize, and center this measure. The resulting variable has a mean of zero and a variance of one.

**Table A3:** Factor loadings for parental inputs.

	<b>Factor 1</b>	
	<b>Paternal affection</b>	<b>Maternal affection</b>
<b>Panel A: Affection</b>		
How would you rate your relationship with your father/mother during the years you were growing up?	0.8540	0.7895
How much did he/she understand your problems and worries?	0.8566	0.8225
How much could you confide in him/her about things that were bothering you?	0.8129	0.7828
How much love and affection did he/she give you?	0.8427	0.8155
How much time and attention did he/she give you when you needed it?	0.8962	0.8464
How much effort did he/she put into watching over you and making sure you had a good upbringing?	0.7622	0.6743
How much did he/she teach you about life?	0.7625	0.6634

Table A3: (continued)

Factor 1		
<b>Panel B: Discipline</b>		
	Paternal discipline	Maternal discipline
How strict was he/she with his rules for you?	0.9590	0.9290
How consistent was he/she about the rules?	0.7532	0.6904
How harsh was he/she when he punished you?	0.6589	0.5455
How much did he/she stop you from doing things that other kids your age were allowed to do?	0.5838	0.5269

We retain factor 1 for each variable because this factor has an eigenvalue over one. To construct these variables, we follow the survey methodology, according to which paternal/maternal affection combines seven variables listed in Panel A and paternal/maternal discipline combines four measures listed in Panel B. As shown in the table, parental love and affection as well as a parental understanding of child's problems have the highest weights in both paternal and maternal affection; and parental strictness with the rules is most likely to define parental discipline.

**Table A4:** The effects of unilateral divorce laws on conscientiousness, using conventional difference-in-differences methodology.

	Men (1)	Women (2)
Unilateral divorce law	−0.121*** (0.033)	−0.112*** (0.020)
Observations	8238	8658
Mean of dependent variable	0.133	−0.127

The estimated coefficients on the policy variable unilateral divorce law are obtained using the standard difference-in-differences methodology and interpreted as a standard-deviation change in conscientiousness. The models include year and group fixed effects as well as age dummies and an indicator for having same-sex siblings. Standard errors clustered at the state level are shown in parentheses. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$ .

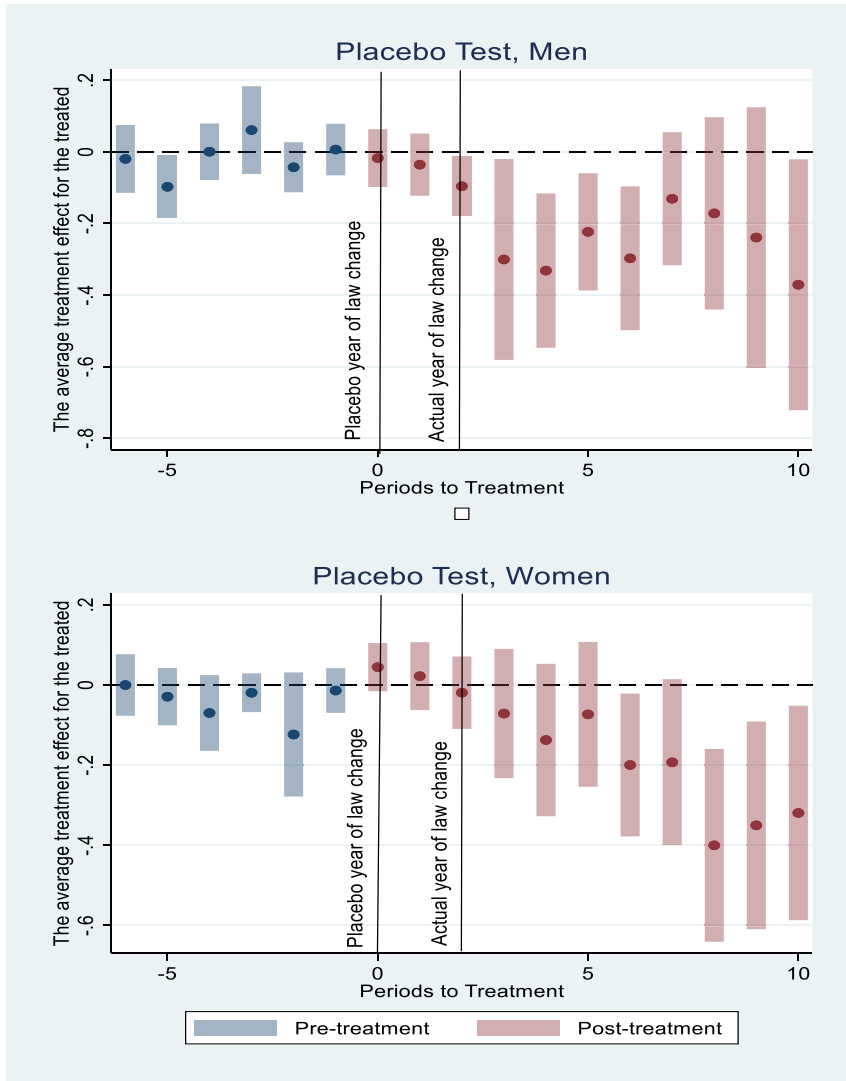


Figure A1: Placebo tests reassigning  $t_{-2}$  as treatment time. See Figure 1 for the specification.



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