

EFFECTS OF PARENTAL DIVORCE ON CHILDREN'S
PSYCHOSOCIAL SKILLS*

EXTENDED ABSTRACT
POPULATION ASSOCIATION OF AMERICA 2014 ANNUAL MEETING

JENNIE E. BRAND
University of California – Los Angeles

YU XIE
University of Michigan

RAVARIS MOORE
University of California – Los Angeles

Version: September 27, 2013
Running head: divorce and children's skills

* Direct all correspondence to Jennie E. Brand, Department of Sociology, University of California – Los Angeles, 264 Haines Hall, Los Angeles, CA 90095-1551, USA; email: brand@soc.ucla.edu; phone: 310.266.0826; FAX: 310.206.9838. This research made use of facilities and resources provided to the first author at the California Center for Population Research, UCLA, which receives core support from the National Institute of Child Health and Human Development, Grant R24HD041022. The ideas expressed herein are those of the authors.

AUTHOR BIOGRAPHY PAGE

JENNIE E. BRAND is Associate Professor of Sociology at the University of California – Los Angeles and Associate Director of the California Center for Population Research. Her research centers on inequality and its implications for various outcomes that indicate life chances, and a methodological focus on causal inference and the application and innovation of statistical models for panel data. Current research projects include evaluation of heterogeneity in the effects of education on socioeconomic outcomes and the social-psychological and socioeconomic consequences of job displacement.

YU XIE is Otis Dudley Duncan Distinguished University Professor of Sociology and Statistics at the University of Michigan. He is also a Research Professor at the Population Studies Center and Survey Research Center of the Institute for Social Research, and a Faculty Associate at the Center for Chinese Studies. His main areas of interest are social stratification, demography, statistical methods, Chinese studies, and sociology of science. His recently published works include *Women in Science: Career Processes and Outcomes* (Harvard University Press 2003) with Kimberlee Shauman, *Marriage and Cohabitation* (University of Chicago Press 2007) with Arland Thornton and William Axinn, *Statistical Methods for Categorical Data Analysis* (Second edition, Emerald 2008), and *Is American Science in Decline?* (Harvard University Press 2012) with Alexandra Killewald.

RAVARIS MOORE is a graduate student in sociology at the University of California – Los Angeles. His work examines the effects of environmental factors on the educational and career outcomes of youth. His research beyond examines the effects of exposure to violence on the academic outcomes of youth, and the degree to which applied high school S.T.E.M. courses increase the rates at which disabled youth pursue college S.T.E.M. majors and S.T.E.M. related careers.

EFFECTS OF PARENTAL DIVORCE ON CHILDREN'S PSYCHOSOCIAL SKILLS

ABSTRACT

A large literature suggests parental divorce leads to worse educational and socioeconomic outcomes among children. A recent study by Kim (2011) highlights the role of parental divorce in the development of children's cognitive and noncognitive skills, offering probable connections to educational and socioeconomic outcomes. This prior work treats children's cognitive and noncognitive traits as parallel or symmetrical outcomes of family shocks. However, we contend that the development literature points to important asymmetry between these skills. While cognitive skills stabilize relatively early in childhood, psychosocial skills evolve and change through young childhood, thus allowing family environments to play a sizeable role in shaping psychosocial skills. Using data from the National Longitudinal Survey of Youth (NLSY) and the National Longitudinal Survey's Child-Mother file (NLSCM), we assess the effects of parental divorce on children's psychosocial skills. We study variation in effects by children's propensity for parental divorce and the timing of divorce over childhood. We then evaluate the degree to which psychosocial skills mediate the relationship between parental divorce and children's educational and socioeconomic outcomes.

EFFECTS OF PARENTAL DIVORCE ON CHILDREN'S PSYCHOSOCIAL SKILLS

EXTENDED ABSTRACT

POPULATION ASSOCIATION OF AMERICA 2014 ANNUAL MEETING

A large literature suggests parental divorce leads to worse educational and socioeconomic outcomes among children (Amato 2001; Amato and Keith 1991; Kim 2011; McLanahan and Percheski 2008; McLanahan and Sandefur 1994). A range of probable mechanisms link parental divorce to children's outcomes, such as economic and emotional hardship and geographic dislocation. A recent study by Kim (2011) highlights the role of parental divorce in the development of children's cognitive and noncognitive skills, again offering probable connections to educational and socioeconomic outcomes. Cognitive skills have long been implicated as strong predictors of educational and socioeconomic outcomes, and a growing body of research suggests that children's noncognitive or psychosocial skills are similarly important predictors (Cunha and Heckman 2009; Duncan and Magnuson 2011; Heckman, Stixrud, and Urzua 2006; Jackson 2006; Lleras 2008; Rosenbaum 2001; Wolfe and Johnson 1995). The work by Kim (2011) treats these two factors, children's cognitive and noncognitive traits, as parallel or symmetrical outcomes of family shocks. However, we contend that the development literature points to important asymmetry between these skills. While cognitive skills stabilize relatively early in childhood (Hopkins and Bracht 1975; Schuerger and Witt; 1989), psychosocial skills evolve and change through young childhood (Borghans et al. 2008; Cunha and Heckman 2009), thus allowing family environments to play a sizeable role in shaping psychosocial skills (Roberts, Wood, and Caspi 2008).

Given the immutability of cognitive skills, we contend that the observed impact of family socioeconomic shocks on children's cognitive skills is driven by measurement error, capturing instead the psychosocial components of such tests. Thus, we assess the effects of parental divorce on children's psychosocial skills. Drawing on the literature on the social determinants of divorce, we include a rich set of covariates to construct the propensity of parental divorce, including characteristics of parents (e.g., socioeconomic background, religion, and education) and whether those characteristics match between parents, as well as measures of parental conflict. Conditional on the estimated propensity of parental divorce, we then treat parental divorce as a treatment and match children whose parents were divorced to children whose parents were not divorced but had the same observed propensity for divorce.

We also study variation in effects of parental divorce. We apply the propensity-score approach of Xie, Brand, and Jann (2012) [also see Brand and Simon Thomas (2013)]. This method would allow us to find out how the effects of divorce may vary systematically with the baseline propensity score based on observed covariates. We also incorporate the approach of Almirall, Ten Have, and Murphy (2010) by considering the time-varying propensity score, which is an extension of Robins' (1994) work on the structural nested mean model for making causal inferences about the impact of time-varying causes in the presence of time-varying covariates. A similar approach for

studying variation in effects by the propensity for treatment and by the time of treatment were explored for the effects of parental job displacement on children's outcomes in young adulthood in Brand and Simon-Thomas [forthcoming].

We use data from the National Longitudinal Survey of Youth (NLSY) and the National Longitudinal Survey's Child-Mother file (NLSCM). The NLSY is a nationally representative sample of 12,686 respondents who were 14 to 22 years old when first surveyed in 1979; these individuals were interviewed annually through 1994 and biennially thereafter. In 1986, the National Longitudinal Survey began a separate survey of the children of NLSY women, the NLSCM. Data have been collected every two years since 1986; new sections were added in 1994 as the children entered young adulthood. As of 2010, the 6,283 NLSY 45 to 52 year old women had given birth to about 11,500 children. We identify children of the NLSY79 who experienced divorce as the subset of children whose parents were marriage at some point before birth, and experienced divorce at or before age 17.¹ Of those whose parents were married, 32 percent (3,250 respondents) also experienced divorce by age 17.

To address selection concerns of the children whose parents divorce, and how factors that influence the probability of parental divorce may also influence outcomes of interest, we assess differences associated with experiencing divorce while controlling for the probability of experiencing divorce conditional on information known at the child's date of birth. We model the likelihood that a child experiences divorce as an event dependent upon demographic variables, parental labor force participation and job quality measures, mother's preferences concerning marriage and children, mother's beliefs concerning a woman's role, mother's education and ability measures, measures of relationship quality for mother and partner in child's birth year, and mother/partner differences in race, religious heritage, and college completion. We also control for whether the mother became sexually active at age 15 or younger, and whether she ever reported separation from either biological parent by age 14. A propensity score from this divorce model controls for the probability of experiencing divorce.

Our first set of results corresponds to outcomes measured when the children are age 18 and older. We find no significant differences in Pearlin Mastery scale scores between children whose parents divorce and those whose parents do not. Results indicate no significant difference in feelings of control of one's own life outcomes. Subscales indicate that those who experienced parental divorce were more likely to feel helpless and pushed around. However, they were also significantly more likely to believe that they can "change things." However, experiencing parental divorce in childhood is associated with increased depression. A composite measure constructed by summing over components of the CESD (Center for Epidemiologic Studies Depression Scale) indicates that children who experience divorce are more likely to exhibit signs of depression in adulthood. According to the subscales, children who experienced divorce are more likely

¹ This determination is based upon a comparison of the child's birth year reported in the NLSCM, mother's marital status as reported in each round of the NLSY, and the reported start and end dates of the mother's first two marriages reported each round of the NLSY. These measures provide two avenues for identifying marriage start and divorce dates, and thus two means of identifying the children who experienced marriage and divorce. The two measures agreed in 87 percent of cases concerning who had experienced marriage by age 17, and 90 percent of cases concerning who experienced divorce by age 17 conditional on experiencing marriage.

to be sad, unable to focus, depressed, poor in appetite, and restless in adulthood. They are also more likely to feel anxious and disorganized. Children who experience parental divorce have their sexual debut roughly 8 months earlier than children whose parents remain married. They have their first drink 2.2 years earlier, and they claim to drink regularly 3.5 years earlier. They also try marijuana 7 months earlier, and have their first cigarette 8 months earlier. Children who experienced divorce are more likely to drive while high. They are also more likely to be late to school or work because they are high, and they are more likely to feel that being high hurt their employment opportunities on a regular basis.

We will continue to explore these outcomes, as well as variation in effects. We will also incorporate a model to understand the degree to which the influence of parental divorce on children's psychosocial skills mediates the effect on children's educational and socioeconomic outcomes.

REFERENCES

- Almirall, Daniel, Thomas Ten Have, Susan A. Murphy. 2010. "Structural Nested Mean Models for Assessing Time-Varying Effect Moderation." *Biometrics*, 66(1):131-139.
- Amato, Paul R. 2001. "Children of Divorce in the 1990s: An Update of the Amato and Keith (1991) Meta-Analysis." *Journal of Family Psychology* 15:355-70.
- Amato, Paul R. and Bruce Keith. 1991. "Parental Divorce and Adult Well-Being: A Meta-Analysis." *Journal of Marriage and Family* 53:43-58.
- Borghans, Lex, Angela Lee Duckworth, James J. Heckman, and Bas ter Weel. 2008. "The Economics and Psychology of Personality Traits." Working Paper No. 13810, National Bureau of Economic Research, Cambridge, MA.
- Brand, Jennie E. and Juli Simon Thomas. 2013. "Causal Effect Heterogeneity." Pp. 189-214 in *Handbook of Causal Analysis for Social Research*, Stephen L. Morgan ed., Springer Series.
- Brand, Jennie E. and Juli Simon Thomas. [forthcoming.] "Job Displacement Among Single Mothers: Effects on Children's Outcomes in Young Adulthood." *American Journal of Sociology*.
- Cunha, Flavio and James Heckman. 2009. "The Economics and Psychology of Inequality and Human Development." *Journal of the European Economic Association* 7:320-364.
- Duncan, Greg J. and Katherine Magnuson. 2011. "The Nature and Impact of Early Achievement Skills, Attention Skills, and Behavior Problems." Pp.48-69 in *Wither Opportunity? Rising Inequality, Schools, and Children's Life Chances*, edited by G. J. Duncan and R.J. Murnane. New York: Russell Sage Foundation.
- Heckman, James J., Jora Stixrud and Sergio Urzua. 2006. "The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior." *Journal of Labor Economics*, 24:411-82.
- Hopkins, Kenneth D. and Glenn H. Bracht. 1975. "Ten-Year Stability of Verbal and Nonverbal IQ Scores." *American Educational Research Journal* 12(4):469-77.
- Jackson, Michelle. 2006. "Personality Traits and Occupational Attainment," *European Sociological Review* 22(2):187-99.
- Kim, Hyun Sik. 2011. "Consequences of Parental Divorce for Child Development." *American Sociological Review* 76(3):487-511.
- Lleras, Christy. 2008. "Do Skills and Behaviors in High School Matter? The Contribution of Noncognitive Factors in Explaining Differences in Educational Attainment and Earnings." *Social Science Research* 37(3):888-902.
- McLanahan, Sara, and Christine Percheski. 2008. "Family Structure and the Reproduction of Inequalities." *Annual Review of Sociology* 34:257-76.
- McLanahan, Sara S. and Gary Sandefur. 1994. *Growing Up with a Single Parent: What Hurts, What Helps?* Cambridge: Harvard University Press.
- Roberts, Brent W., Dustin Wood, and Avshalom Caspi. 2008. "Personality Development." In *Handbook of Personality: Theory and Research*, edited by O.P. John, R.W. Robins and L.A. Pervin. New York: Guilford Press.
- Robins Jamie. 1994. "Correcting for non-compliance in Randomized Trials Using Structural Nested Mean Models." *Communications in Statistics, Theory and Methods* 23:2379-2412.

- Rosenbaum, J., 2001. *Beyond College for All: Career Paths for the Forgotten Half*. New York: Russell Sage Foundation.
- Schuerger, James M. and Anita C. Witt. 1989. "The Temporal Stability of Individually Tested Intelligence." *Journal of Clinical Psychology* 45(2):294-302.
- Wolfe, Raymond N. and Scott D. Johnson. 1995. "Personality as a Predictor of College Performance." *Educational and Psychological Measurement* 55(2):177-85.
- Xie, Yu, Jennie Brand, and Ben Jann. 2012. "Estimating Heterogeneous Treatment Effects with Observational Data." *Sociological Methodology* 42:1-34.