Crime and the Family: Lessons from Teenage Childbearing

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Abstract

This paper reviews the literature that links classic issues in demography to crime. Specifically we review literature that links the wantedness of children, the age of a mother at the birth of her first child and the probability that a child grows up without two parents to the child's criminal outcomes as a young adult. We discuss the literature in economics that largely utilizes what we label "macro-level variation;" that is variation in policy at the state level that shifts the propensity of having wanted children, having children as a teen and becoming a mother raising a child alone as the result of divorce. We also review the literature in psychology and family therapy. This literature uses variation at the individual level which gives clearer statistical results at the potential cost of weaker statements of causality. This literature however benefits from being decidedly more theoretical which aids interpretation and also shows promise of allowing causality to be established using clinical trial methods. A central argument of the paper is that much is to be gained by considering literature on teenage childbearing for girls to gain insight on the origins of criminal activity which almost always applies to boys. Three lessons emerge: (1) Both theoretically and empirically it is useful to think about teenage childbearing for girls as "female crime;" (2) That the best established cohort explanation for the time series pattern in crime is the link between having a mother who was a teen at her first birth and subsequent criminality of boys in early adulthood; and (3) the macro level evidence is unlikely to be successful at sorting out various cohort explanations for the time series pattern of crime because, just as in the case of teenage childbearing, the variation in potential explanations occur approximately at the same time with limited spatial variation.

Preliminary and Incomplete

Introduction

Gary Becker is responsible for both the most prominent theory of crime and the most prominent theory of childbearing in modern economic thought. When focusing on the Supply of Crime in his 1968 paper "Crime and Punishment: An Economic Approach," Becker focuses solely on the costs and benefits to a rational actor. He writes:

> "Theories about the determinants of the number of offenses differ greatly, from emphasis on skull types and biological inheritance to family upbringing and disenchantment with society. Practically all the diverse theories agree, however, that when other variables are held constant, and increase in a person's probability of conviction or punishment if convicted would generally decrease, perhaps substantially, perhaps negligibly the number of offences he commits."

Since his work is silent on theories of how "skull types, biological inheritance, family upbringing and disenchantment with society" are linked to criminal propensity, Becker emphasizes the role that changes in the cost of crime has on the rate of crime over time. Public policies such as the level public expenditures on police, prosecution, courts, and corrections affect the rate of detection of criminal activity and the size of sanctions that criminals receive when convicted. To Becker, the principle mechanism through which crime rates vary is through contemporaneous policies that affect the cost (or benefit) of crime. Demographers would classify this as a "period effects" model of crime.

Becker's theory of the demand for children is contained in his book A Treatise on the Family first published in 1981. Like other social scientists, Becker was observing a profound shift in the American family. Starting in the early 1960s, the birth rate fell sharply, the fraction of children born outside of marriage increased precipitously the divorce rate rose steeply and cohabitation outside of marriage went from rare to

common[1]. His theory in Treatise was an attempt to unify these empirical facts, extending his theory of household production to address the gains to marriage, the demand for children and the related topic of investment in children. Becker views the rise in the wage rate that women can obtain on the labor market as the root cause of the changes in marriage and childbearing patterns and as such his theory centers on the effect of the changes in the value of women's time on the traditional activities of "home production." While to a limited degree, Becker specializes the "production function" for the production of children and "child quality" the purpose of the model is not to understand the micro-level foundations of childrearing. Instead it is to understand the macro-level changes in society that could stem from increased economic opportunities for women. For this reason "home production" is a general concept where individuals gain utility from goods produced in the home and these goods are produced by purchasing inputs on the market and combining these with time from household members. The process for raising children is different in only one substantive way from cooking, cleaning or raising garden flowers.

Theories in developmental psychology link the "production of children" to the development of criminal behavior. These theories were developed not as a byproduct of explaining broad social trends but instead to explain regularities between early childhood conditions, childhood aggression, conduct disorder, juvenile delinquency and finally criminal behavior in adolescents and beyond. Unlike the production function in Becker, developmental psychology has strong theory about the micro-foundations of both pro-

[1] Much of the modern work on the rise in out-of-wedlock childbearing follows the Moynihan report (1965) that highlighted statistics on Black out-of-wedlock births and argued "At the heart of the deterioration of the fabric of Negro society is the deterioration of the Negro family." Bumpas and Sweet (1989) document that the rate at which individuals ever cohabited rose from 14% for the 1929-1938 birth cohort to 45% or the 1955-1959 birth cohort.

social and antisocial personalities. To starkly contrast this with Becker, developmental psychology makes “skull types, biological inheritance, family upbringing and disenchantment with society” central.

While there are many theories that link between biology, childhood conditions and personality outcomes Moffitt (1993) lays out an elegant one that has had a major impact on psychology and criminology. Moffitt classifies individuals into two groups. These groups differ in the continuity of antisocial behavior across age and in their responsiveness to life events in adolescence. Life-course-persistent (LCP) individuals display antisocial behavior at a young age and antisocial behavior remains a stable personality trait over the life course and over all kinds of conditions and situations. According to Moffitt, the source of this personality type may originate as biological; then in childhood it is enforced or dampened by interactions between the parents and the child. Adolescence-limited individuals (AL) are involved in crime only through their adolescent years and display low levels of antisocial behavior both before and after adolescence. Moffitt speculates that in modern society where adult responsibilities begin well after physical maturation, adolescents display this form of antisocial behavior as rebellion. During adolescents the two groups are indistinguishable, both displaying serious delinquency. But ALs have well developed empathy, are generally of higher IQ, and are able to weigh the costs and benefits of criminal activity especially after adolescence.

To a demographer, this theory is attractive as it is a natural way to think about for changes in the annual crime rate stemming from both “period effects” and “cohort effects.” Just as in Becker, ALs are responsive to incentives, lowering criminal activity with social investment in detection, conviction and punishment. In any year the level of

this investment will affect the crime rate. LCPs also contribute to the annual crime rate but LCPs are insensitive to these factors. Instead their level in the population will be important to the annual crime rate especially because LCPs are thought to commit many more crimes per person. While their origin may initially be biological, which would not vary by cohort, their level in the population would vary by cohort if the quality of early childhood parent-child interactions varies. And a reasonable conjecture is that the difficulty that parents have making ends meet, the presence of two parents to raise the child and how wanted the child was to begin with could all affect the interactions between a difficult children and his or her parents. These could clearly vary across cohorts for many reasons including policies that have changed across cohort such as the level of financial support available to families through the welfare system, the laws governing divorce and the laws governing contraceptive availability and access to abortion.

Another underappreciated advantage of the developmental perspective is that by concentrating on the origins of antisocial behavior in general rather than crime specifically it is a theory that applies equally to males as it does to females. According to Moffitt, while adolescent antisocial behavior may express itself differently in teenage boys and girls, the basic taxonomy and the origins of groups remains the same. This is different than other gendered theories especially in sociology that, for example, emphasize the absence of a male role model affecting boys more than girls (cite).

This paper begins by drawing the link between the annual rate of teenage childbearing and the annual rate of crime. We argue that this pattern is consistent with developmental theory in that age-inappropriate sexualized behavior is “female crime.”

This does not shed light on whether the origins of this correlation are through cohort effects or period effects, although some period effects such as economic opportunities are more plausibly linked to both than contemporaneous policies that effect crime specifically (e.g. policing). We then reviewing the empirical evidence in economics of the link between two family policies and the rise of crime in the late 1980s and then its subsequent decline – abortion laws and divorce laws. We conclude that the evidence here is fragile and the fragility stems from extremely limited time series and spatial variation in policy. We draw the reader's attention to an earlier debate on the origin of the rise of teenage out-of-wedlock childbearing and note that some progress was made eliminating explanations that had spatial variation but distinguishing hypotheses with nearly coincident timing remains a vexing problem.

We then move on to one link between family behavior and boyhood aggression and crime as an adult that has been found to be robust in both the economics and psychology literature – the age of a child's mother was when she first gave birth. A causal interpretation of this relationship remains unclear; specifically whether young mothers are more susceptible to poor child interactions especially with difficult children and whether these poor interactions lead to persistent aggression and criminality. We conclude that there is insufficient evidence to evaluate this mechanism in full but there is causal evidence on pieces of this hypothesis. Specifically, there is limited evidence from randomized clinical trials on the efficacy of lowering aggression in children and criminal behavior in adolescents through interventions with parents when their children are young to help improve parenting practices.

While we fall short of exact policy prescriptions we do comment on what we know that should affect family policy geared to reduce crime. We note that while we do not fully understand the causal mechanism, a mother being a teenage at first birth as well as having low education are markers for her children having increased risk for aggression and criminality. As such, these factors could act as a targeting mechanism for policy. Second, the clinical evidence suggests some benefit of parenting interventions on aggression but what the optimal content of such intervention should be is not well understood. Finally, whether these small RTCs can be expanded to the population level is unknown as is their cost effectiveness.

Time-series Pattern of Teenage Childbearing and Crime

Figure 1 presents a five-year moving average of the annual percentage change in teenage childbearing. We begin the time series in 1975. Teenage childbearing was substantially higher in the 1950s and 1960s but it was largely within marriage. Theoretically, it is teenage childbearing outside of marriage that does not accord with social norms and is potentially the result of the same process that expresses itself in males as crime. Figure 1 also presents a five-year moving average of the annual percentage change in violent crime and property crime. What is clear from

Figure 1: Teen Childbearing and Crime

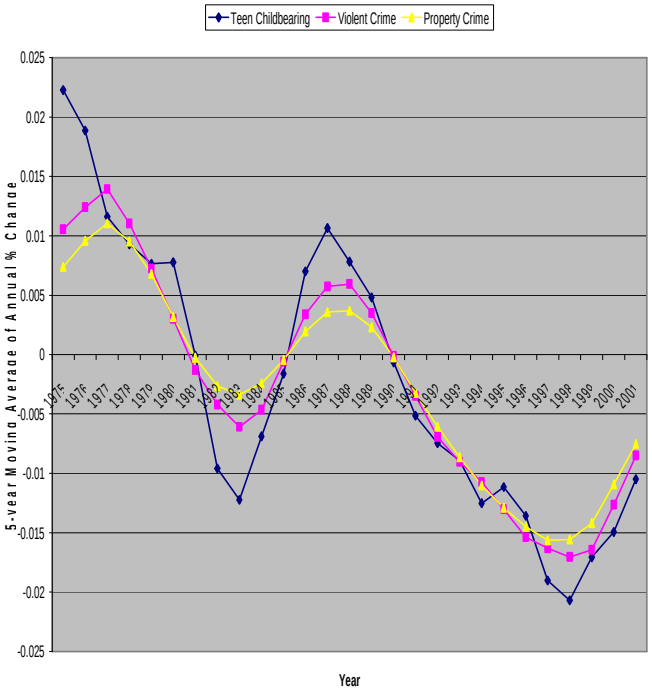


Figure 1 is that these two patterns are remarkably coincident. All three series fall through the 1970s reaching a trough in 1983, rise steeply between 1983 and 1988 and then fall until 1998 and rise again thereafter.

There are many explanations of this coincidence in patterns. A cohort effect explanation as discussed would be consistent with developmental theory. A worsening situation for children with regard to their upbringing in the early to mid 1970s would 20 years later lead to increased antisocial behavior. During this time period, there were at least three large social changes affecting the family: changes in abortion laws, divorce laws and the size of the Welfare System.

In January 1973 Roe v. Wade established that the right to privacy allowed women to seek abortions up until the point when the fetus became viable which the court defined as 24 weeks. In the companion case, Doe v. Boulton it also allowed abortion at later gestational ages when needed to protect a women's health. These decisions effected abortion laws in 45 States. California, New York, Washington, Hawaii and Alaska had liberalized abortion in 1970.

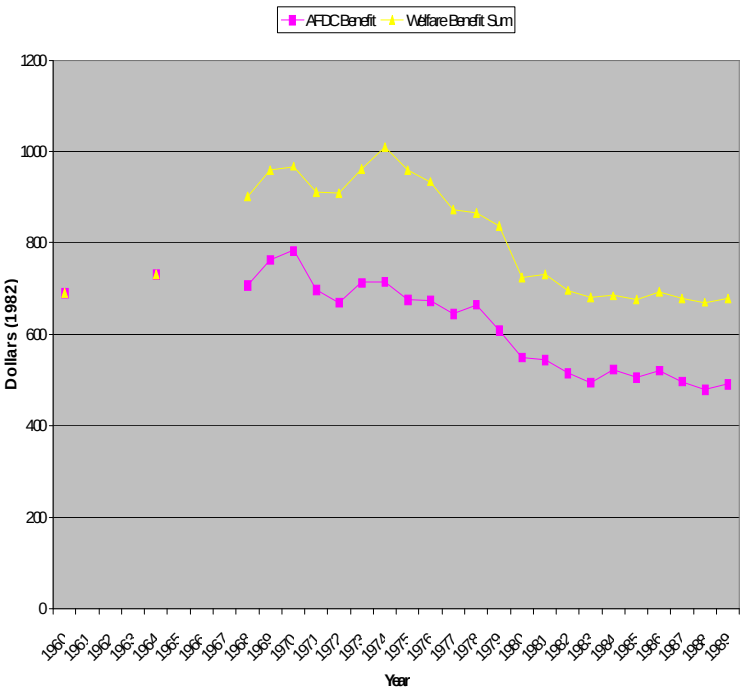
There is considerably more variation in divorce laws across states than abortion laws. There are many state laws governing various aspects of divorce including whether one party can unilaterally seek it, the needed length of time separated before seeking divorce, laws governing division of property, and whether fault is used as a criterion for the division of property. The right to seek a divorce unilaterally has been the focus of much of the literature on divorce and its effects. Early to mid-1970s was a time of enormous change in divorce laws just as it was for abortion. Between 1970 and 1975, twenty-eight states moved from divorce requiring mutual consent to divorce being

available unilaterally. California, Washington and Hawaii all adopted unilateral divorce during this period; Alaska has had the longest history of unilateral divorce (1935) and New York has still not adopted unilateral divorce.

Finally, beginning in the late 1960s, there was a considerable expansion in cash and in-kind transfers to poor families. Prior to the Food Stamp Act of 1964, transfers to the poor through federal programs was largely limited to cash transfers the Aid to Families with Dependent program. Beginning in the late 1960 there was a great expansion of both the Food Stamp program and Medicaid, the primary program that provides medical care to poor families under age 65. The Food Stamp program expanded by about 1 million people per year from 1965 to 1970 reaching 6 million recipients in May of 1970. Then by February 1971 the program reached 10 million recipients and by October 1975 reached 15 million recipients. Geographic expansion accounts for a large part of the growth. Similarly, Medicaid was established in 1965 through title XIX of the Social Security Act and expanded geographically through 1982. With health care costs rising faster than other prices, Medicare comprises a rising fraction of transfers to poor families.

Figure 2 graphs welfare transfer to a family of four in New York. Figure 2 graphs both the dollar value of AFDC Benefit (in 1982 $s) and an estimate of the total dollar value of transfers that include AFDC, Food Stamps and the value of Medicaid. The early 1970s saw an expansion in the real value of cash transfers. But the big expansion in welfare benefits came from benefits from the newer Food Stamp and Medicare program. Support to poor families expanded precipitously between the late 1960s and mid 1970s and have been in a long term decline since. Policy changes in the Regan administration

Figure 2: Welfare Benefits for Family of 4, New York



(OBRA) account for the first steep fall in welfare benefits; an even more important policy change during the Clinton administration (PRWORA) fundamentally changed the cash transfer system instituting work requirements and importantly time limits on the receipt of benefits (not picture).

All of these policy changes may have affected parent-child interactions. Abortion gave women greater choice on the timing of birth. This may have cause a change in the composition of births with women not in a position to raise children terminating pregnancy. It also may have reduced the number of unwanted births in other ways. With the expansion of unilateral divorce there was rapid rise in the number of divorces and the number of children being raised without two parents in their home. And the rapid rise in welfare benefits, while potentially mitigating poverty for children, often occurred in a context of these benefits being directed to unmarried mothers. As emphasized by Becker (199x) it also may have instituted a devaluation of work and a rise in the "welfare culture."

While all of these factors may be potential "cohort" explanations for the coincident rise in teen childbearing and crime, what is also clear is that sorting across these will be difficult. The early to mid-1970s was a time of great change in family policy

and these policies tended to move together both over time and within States. We review the literature below on the link between abortion policy and crime and divorce policy and crime. We not here that no work to date attempts to simultaneously distinguish the effect of these multiple policy changes; it is an empirical issue whether there is enough independent variation to do so.

The coincidence of teen childbearing and crime could also be due to "period effects." The crime literature has stressed the crack epidemic of the mid to late 1980s and the related violence of contestable markets. If this is true for crime, it is an incomplete explanation with regards to teen childbearing. While we know that women who were crack addicts exchanged sex for drugs, the spatial pattern of the rise in teen childbearing would suggest that this could not be a full explanation. Crack entered large cities and was especially prevalent among blacks in the Northeast and South Atlantic states. Almost all states experienced rises in teen childbearing over the mid to late 1980s; the rise occurred in both rural and urban areas and occurred among whites and blacks.

But there are of course many other "period" explanations for the coincident trends in teen childbearing in crime. While the 1980s saw falling wages for unskilled workers (Juhn, Murphy and Pierce, 1993), this decline largely ceased over the 1990s and there is some evidence of rising wages for the unskilled (cite). Changes in the opportunity cost of time could clearly change both the cost of crime and the demand for children. There is also some evidence that the rise in incarceration directly affected the rate of teen childbearing for low income whites and blacks by removing from the population potential fathers (Kandar, 2007).

What should be clear from this discussion is testing for cohort explanation faces severe challenges. First, some explanations have limited variation outside of time series variation making coincident cohort events or period events occurring 20 years later indistinguishable. Second, the period in which any single candidate family policy occurred is likely to have happened in combination with other family policies. Therefore, it is difficult to evaluate the affect of any particular family policy without considering a full set of family policies. Third, the outcome of interest lags the cohort event by 20 years making the link more difficult to establish without more contemporaneous changes in outcomes and a clear theory of how earlier outcomes (e.g. childhood aggression) are related to crime and teen childbearing. We next review the crime literature on the effects of abortion policy and divorce policy. We then turn to the literature that links criminal behavior to the age his mother when he was born. Finally we turn to two intervention studies that look at the affect of increasing parental knowledge about childrearing on aggression in children and criminality in adolescents.

Literature on Family Policy and Crime

1. Here I will briefly review the Donohue and Levitt (2001) paper and the set of papers responding to their work. This will include Joyce (2003), Foote and Goetz (2005), Ananot, Gruber, Levine and Stager (2009), and Joyce (2009).
2. Here I will review the evidence on changes in state divorce laws and crime. This will include Caceres-Delpiano and Giolito (2008).

Teen Childbearing and Crime

1. Here I will Discuss Nagin, Farrington and Pogarsky (1997) and Grogger (1997). Strong evidence of a link between maternal age at first birth and crime of sons; weaker evidence of link between maternal age at focal child's birth.

Evidence from Intervention Studies

1. Here I will review the evidence from intervention studies of parenting on aggression in boys and crime among adolescents. Byron Egeland and Marti

Erickson developed the The Steps to Effective Enjoyable Parenting (STEEP) program. STEEP has been shown in RCT to improve the quality of the mother-infant relationship which has many positive
consequences as the child develops. It has never looked at aggression as an outcome but I would suspect that would likely reduce aggressive behavior in preschool children and beyond.

2. Oregon Social Learning Center is conducting RCTs. One project conducts a randomized preventive intervention trial to test the impact of parent management training on the children of incarcerated parents. A second examines whether providing enhanced support and training to state foster and kinship parents prevents placement disruptions and improves child outcomes. The study involves over 700 foster families and is being conducted in collaboration with investigators at the Child and Adolescent Services Research Center and the San Diego Health and Human Services Agency.

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Preliminary and Incomplete

Notes: How does family policy affect crime rates? In almost all modern societies, families are the primary institution for socializing young people into productive, nonviolent citizens. Yet family environments differ greatly due to some combination of differences in material hardship or affluence, parental skill and temperament, and community context. The result is considerable variation in developmental outcomes for children that open up quite early. Research by psychologist Richard Tremblay and colleagues documents differences by family income in levels of children's aggression measured as young as 18 months of age. A large body of longitudinal research in criminology demonstrates that aggressive or anti-social behavior measured during childhood is quite predictive of criminal behavior later in life. This chapter would review the available evidence from randomized and natural experiments on how social policies can affect family structure and functioning, and then consider the implications of this research evidence for crime in the U.S. given what is known about the links between family processes and offending risks, and also paying attention to uncertainties surrounding replication and scale-up issues. Particular interventions of interest include: welfare-to-work programs that vary work requirements, income or child care supports, and incentives for marriage or fertility; programs to directly change parenting practices, such as nurse home visitation; and cash transfer programs, including expansions of the Earned Income Tax Credit or housing subsidies.

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