This PDF is a selection from a published volume from the National Bureau of Economic Research

Volume Title: Controlling Crime: Strategies and Tradeoffs

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Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-11512-7

Volume URL: http://www.nber.org/books/cook10-1

Conference Date: January 15-16, 2010

Publication Date: September 2011

Chapter Title: Family Income, Neighborhood Poverty, and Crime

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Chapter URL: http://www.nber.org/chapters/c12088

Chapter pages in book: (p. 419 - 459)

Family Income, Neighborhood Poverty, and Crime

Sara B. Heller, Brian A. Jacob, and Jens Ludwig

9.1 Introduction

Criminal offending and victimization are disproportionately concentrated among disadvantaged people living in economically distressed areas. This cross-sectional correlation between poverty and crime, together with growing concerns about the social costs of America's system of mass incarceration, have led many to wonder whether shifting resources from prisons to social programs would control crime at a lower cost. This is not a new idea. For example, distress in 1820s Paris about the "apparent failure of French penal strategies" prompted calls to focus more attention on the "root causes" of crime, such as individual poverty and income inequality (Beirne 1987, 1143). The idea that the geographic concentration of poverty itself might contribute to crime as another key root cause dates back at least to the "Chicago School" of Sociology in the 1930s (Shaw and McKay 1942). A Gallup poll taken in 2006 suggests that two-thirds of the American public favor reducing crime through increased social spending, while just one-third

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Thanks to Philip Cook, Lance Lochner, John MacDonald, Justin McCrary, Lawrence Katz; participants in the 2009 National Bureau of Economic Research (NBER) Summer Institute preconference and January 2010 NBER research conference in Berkeley; two anonymous referees for helpful comments; and Laura Brinkman for research assistance. All opinions and any errors are, of course, our own.

favors additional spending on enforcement activities.¹ A different poll found that the public believes the most effective ways to prevent crime are, after teaching young people moral values and providing them with recreational opportunities, efforts to "increase business/economic development in poor neighborhoods to create living-wage jobs."²

On the other hand, there remains great skepticism in some quarters about the ability of government social programs to reduce crime, based in part on time series patterns about what happens to crime following implementation of new antipoverty initiatives. For example, crime was a major problem in New York City throughout the 1970s despite the city's various new social policy efforts, leading David Brooks to argue in the New York Times that the city's "crime wave made it hard to think that social problems would be solved strictly by changing material circumstances" (Brooks 2010, A27). John Podhoretz (2010, 28) has argued that "every effort to cure [social pathologies] through large-scale government action only made matters worse, in one of the most potent demonstrations of the law of unintended consequences." The perceived futility (or worse) of government antipoverty efforts is not limited to the experiences of America's largest urban areas. A recent widely cited article in the Atlantic Monthly argues that government efforts to deconcentrate poverty in low-income neighborhoods contributed to large increases in crime in America's midsized cities (Rosin 2008).

In this chapter, we review the existing theory and evidence about how and why government efforts to reduce family- or neighborhood-level poverty might influence aggregate crime rates. We come down somewhere in the middle of the debate. In our view, the skeptics about government social programs are probably too pessimistic. The best available empirical evidence suggests that government efforts to increase the incomes of poor families, or to help them move out of the highest-poverty urban areas, can reduce criminal involvement. One plausible mechanism is the link between family or neighborhood environments and children's developmental outcomes.

An important caution, however, is that most of this evidence comes from the study of small-scale policy initiatives; the effects of large-scale policy changes could be different. In fact, little is known about how to deconcentrate poverty on a large scale because only families living in public housing, who represent a small share of all poor households, appear to be amenable to moving out of high-poverty areas in response to government housing interventions. Moreover, given the plausibly central role of human capital, even small-scale policy efforts to reduce poverty may not be as cost-effective as policies that directly seek to increase human capital, discussed in the chapters in this volume by Lance Lochner (chapter 10), Seth G. Sanders

^{1.} See http://www.albany.edu/sourcebook/pdf/t2282006.pdf.

^{2.} See http://www.soros.org/initiatives/usprograms/focus/justice/articles_publications/publications/hartpoll_20020201/Hart-Poll.pdf.

(chapter 12), Richard G. Frank and Thomas G. McGuire (chapter 4), and Patrick L. Hill and colleagues (chapter 8).

The next section of our chapter lays out some basic facts that help motivate our analysis. We document the strong cross-sectional relationship between poverty and crime within countries, which has for centuries led people to hypothesize that social policy could be an important lever for reducing crime. We note that the strong within-country cross-sectional correlation between poverty and crime does not seem to be as evident in cross-sectional comparisons across different countries in the developed world or in trends of poverty and crime within the United States over time. While these types of comparisons are often referenced in public debates about crime policy, none of these analyses is capable of providing reliable evidence about the causal link between poverty and crime. The fact that family- or neighborhoodlevel poverty is correlated with criminal involvement does not necessarily imply that crime rates need decline as a result of social policies designed to mitigate poverty. Observed correlations between criminal behavior and either individual- or community-level disadvantage may simply reflect the influences of other family attributes that directly affect both youth crime and how much income families have or where families decide to live (see Jencks and Mayer 1990; Mayer 1997). Time series comparisons are complicated by the fact that many determinants of crime are changing over time, not just poverty levels.

In section 9.3, we present a conceptual framework that lays out how additional income might affect crime. Our focus is on juvenile crime, in large part because the available micro-level evidence provides the best information on this age group. The costs of this focus in terms of generalizability may be at least partially justified by the fact that rates of criminal offending peak between late adolescence and early adulthood, depending on the specific type of crime (see, for example, Blumstein and Cohen 1987; Cook and Laub 2002). The basic insight from this simple framework is that the expected effect on crime of antipoverty programs is theoretically ambiguous—declines in economically motivated crime or improvements in children's developmental environments may be offset by increased consumption of goods that are closely linked to crime (like drugs and alcohol) or exposure to more lucrative opportunities for theft.

Of course, at extreme levels, poverty itself must surely matter. No one can believe that starvation, disease, and homelessness can be anything but harmful for children's developmental and criminal outcomes as well as catalysts for desperate acts by adolescents and adults. At the same time, the behavioral effects of additional family income presumably decline as family income increases—that is, that the behavioral consequences of a \$1,000 transfer are larger for poor families than for very rich ones. The relevant question for public policy, then, is whether incremental changes in transfer programs that affect either the level or concentration of poverty within the ranges that we observe in modern America will reduce crime. Similarly, it is critical to know whether this approach could achieve large-scale crime reductions and how the benefits and costs of this approach compare to those of other strategies.

The fourth section of our chapter reviews the available empirical evidence about the relationship between family or neighborhood poverty and crime, particularly how policies designed to change these social conditions affect crime. Our review is selective, focusing primarily on recent policy experiments with clear sources of identifying variation that help overcome the selection bias problems that plague much of the previous empirical literature. The desire to overcome selection concerns leads us to focus disproportionately (though certainly not exclusively) on means-tested housing subsidies, which represent a fairly large part of the American social safety net and, importantly, are not an entitlement.³ The excess demand for housing subsidies provides an unusually good opportunity for the identification of causal relationships between criminal activity and both familyand neighborhood-level poverty.

Our reading of the available research suggests there is reason to believe that both family- and neighborhood-level disadvantage are causally related to criminal behavior. More precisely, the specific types of policies that have been examined in the literature to date—either transferring resources to poor families or helping poor families move into less disadvantaged social settings—seem capable of reducing arrest rates, particularly for adolescents. It is harder to draw confident conclusions from the available data about the key behavioral mechanisms that underlie these relationships.

The lack of good evidence about mechanisms limits our ability to refine policy design, especially because the specific effects of social programs on crime are likely to depend on how the design details shape consumption patterns and work effort. For example, both money and parental time are important inputs into a child's development. There is some evidence that antipoverty programs that create relatively larger work incentives may lead to relatively more antisocial behavior by adolescents within these families, presumably due to some decline in parental monitoring and supports.

The final section of our paper discusses what is known about how these

^{3.} Federal spending on housing assistance for the poor was around \$40 billion in 2006, substantially more than the \$28 billion spent on Temporary Assistance for Needy Families (TANF). These figures are derived as follows: the U.S. House of Representatives Ways and Means Committee "Green Book" for 2008 reports that a total of \$42.2 billion was spent on housing programs by the U.S. Department of Housing and Urban Development (HUD) although part of the \$7 billion spent on block grant programs by HUD may go to nonhousing activities such as crime prevention or child care under the Community Development Block Grant program. The U.S. Department of Education also spends around a half-billion dollars per year on rental assistance to rural families in the Section 521 program; see http://www.obpa .usda.gov/budsum/FY10budsum.pdf. Some low-income homeowners may also receive a tax subsidy through the mortgage interest deduction if they itemize.

interventions would operate at a large scale as well as the difficulties that would arise from trying to substantially expand the scope of these types of programs. We also discuss what is known about how the benefits and costs of these types of interventions compare to alternative crime-control efforts, including mass incarceration and human capital interventions.

9.2 Descriptive Patterns for Poverty and Crime

Within the United States, criminal offending and victimization rates tend to be disproportionately concentrated among low-income people living in high-poverty communities. For example, the 2004 homicide rate in Hyde Park—the racially and economically mixed neighborhood that is home to the University of Chicago—was 13 per 100,000. The homicide rate in the directly adjacent neighborhood of Washington Park, where nearly threequarters of children live below the poverty line and 98 percent of residents are African American, was nearly five times as high (64 per 100,000). For many people, this pattern provides prima facie evidence for the causal effects of individual- or neighborhood-level poverty on criminal involvement. But this correlation may be misleading if the underlying determinants of why some families wind up living in poverty (or in high-poverty areas) are themselves also directly relevant for criminal involvement.

Cross-country comparisons are also frequently used to draw inferences about the underlying determinants of criminal behavior, an approach that shares the same methodological limitations of within-country cross-section comparisons but, interestingly, does not seem to provide the same support for a strong poverty-crime link: countries that either spend relatively more on social programs or have lower poverty rates or both do not consistently have lower crime rates.

The United States serves as a particularly interesting case study. Compared to most other developed nations, we spend a much lower share of our gross domestic product (GDP) on social programs for the nonelderly poor, and we have a much larger proportion of the population with incomes below 50 percent of the median.⁴ While there are some differences across countries in how crimes are defined and the willingness of citizens to report crime to the police or to survey interviews, data assembled by the United Nations suggest that crime rates in the United States are not substantially different from those found in other developed nations. For example, in 1999, the over-

^{4.} Data from the Luxembourg Income Study (LIS) shows the proportion with incomes below 50 percent of median for selected countries are the United States, 17 percent; Mexico, 20 percent; Ireland, 16.5 percent; Australia, 13 percent; Italy, 13 percent; United Kingdom, 12 percent; Canada, 11 percent; Germany, 8 percent; France, 7 percent; and Sweden, 6.5 percent. The overall average across the LIS is 10.8% (Burtless and Smeeding 2007). Three percent of U.S. GDP goes to nonelderly social programs, compared to 6 percent in other Anglo Saxon countries and 12+ percent in Northern European or Scandinavian countries (Burtless and Smeeding 2007).

all rate of crimes reported in official police statistics was 8,517 per 100,000 inhabitants in the United States compared to 10,061 in England and Wales. The total number of recorded assaults in 1999 per 100,000 inhabitants was 805 in the United States compared to 833 in England and Wales.⁵ The one crime for which the United States is clearly an outlier compared to most other developed nations is homicide, which is probably due to the relatively greater involvement of guns in violent crime in the United States compared to other places (see Zimring and Hawkins 1997).

A third common—but flawed—way to assess the poverty-crime relationship is to compare trends in both poverty and crime to see if the two are related. Figure 9.1 shows that the official poverty rate has held fairly steady at around 13 percent between 1967 and 2008. Figure 9.1 also shows that over this same time period, income inequality, measured as the ratio of incomes for households at the 90th percentile of the distribution divided by the income of households at the 10th percentile of the distribution (the "90/10 ratio"), has increased substantially (see also Autor, Katz, and Kearney 2008).

Income segregation across neighborhoods has also been increasing steadily since the 1970s. This can be seen in figure 9.2, which shows a steady increase in what Watson (2009) terms the Centile Gap Index (CGI). The CGI measures how far the average family income within a neighborhood (Census tract) deviates in percentile terms from the median tract family income, compared to how far it would deviate under perfect integration. Figure 9.2 also shows some increase over time in a different measure of isolation, the exposure of the bottom quintile of the income distribution to itself, which is the fraction of bottom quintile families in a typical bottom quintile family's Census tract.⁶

One potential exception to these generally gloomy trends is the indication

5. See United Nations Seventh Survey on Crime Trends and the Operations of Criminal Justice Systems, 1998–2000; http://www.unodc.org/pdf/crime/seventh_survey/7pv.pdf.

6. One might think that steady poverty rates and increasing inequality reflect constant or falling levels of social spending. On the contrary, over this same time period, total spending on social programs increased substantially, from \$59 billion in 1968 (in constant 2002 dollars) to \$373 billion by 2002 (figure 9.3). Spending on medical benefits increased most sharply over this time period, but spending on cash aid has also increased considerably. While spending on means-tested housing programs has stagnated since the mid-1970s, the total number of homeowners and renters receiving housing assistance has increased. Nevertheless, even now only around 28 percent of income-eligible households receive means-tested housing assistance (Olsen 2003). Also relevant for present purposes is the fact that the mix of means-tested housing programs has changed over time (Quigley 2000; Olsen 2003). Over the past several decades, an increasingly large share of housing assistance is delivered in the form of housing vouchers, which provide households with a subsidy to lease a unit of their own choosing in the privatehousing market, rather than public housing or other forms of project-based housing. Given long wait-lists for housing assistance in most cities, unit-based subsidy programs like public housing essentially offer families a "take-it-or-leave-it" offer to live in a given housing unit in a given location, whereas vouchers rely more on family decisions about where (and whether) to move. As we discuss further in the following, families with housing vouchers live in lowerpoverty areas compared to those in public or project-based housing (see also Olsen 2003).



Fig. 9.1 Trends in poverty and income inequality

Sources: U.S. Census Bureau, Historical Income Inequality Tables; U.S. Census Bureau, Historical Poverty Tables.



Income Inequality and Selected Measures of Income Segregation (1980, 1990, 2000)

Fig. 9.2 Trends in measures of income segregation from Watson (2009) *Source:* Watson 2009.

of some improvement in well-being for African Americans over the past several decades, at least on selected measures, which may be quite important given the disproportionate involvement of blacks in crime as both victims and offenders. Figure 9.1 shows that since the early 1990s, the poverty rate among blacks has declined by nearly a third (from 33 to 24 percent). Figure 9.3 shows that since 1970, the amount of neighborhood racial segregation in America has declined in U.S. metropolitan areas. This figure, taken from Glaeser and Vigdor (2003), shows the dissimilarity index, defined as the proportion of blacks who would need to change Census tracts in order to achieve perfect integration (where the share of blacks in each Census tract would equal the share of blacks in the overall metropolitan area so that if a metropolitan area was 40 percent black, each tract would also be 40 percent black).

Crime rates do not appear to be systematically related to the trends in any of the previously mentioned measures of family- or neighborhoodlevel disadvantage (see also Cook 2009). Crime rates have been much more cyclical over the past several decades (figure 9.4) than either the overall share of Americans living in poverty or the different measures of neighborhood segregation shown in the preceding. The data on crime trends shown in figure 9.4 come from the FBI's (Federal Bureau of Investigation 2008) Uniform Crime Report (UCR) system for homicides, all serious (Part 1) violent crimes (homicide, rape, robbery, aggravated assault), and all serious



Fig. 9.3 Trends in residential segregation for metropolitan areas

Sources: Authors' calculations from Cutler and Glaeser (1997) and Cutler, Glaeser, and Vigdor (1999).



Fig. 9.4 Crime trends in the United States

Source: Bureau of Justice Statistics, National Crime Victimization Survey, and own calculations.

property crimes (motor vehicle theft, burglary, and larceny), as well as selfreports about crime victimizations from the National Crime Victimization Survey (NCVS).

To the extent that there is any visible evidence of an association between changes in social conditions and crime, it is limited to the concurrent drop over the 1990s in both crime rates and the poverty rate for blacks. This pattern falls far short of definitive proof of a causal relationship, however, because both measures could be declining over this period for a variety of other reasons. This highlights the general problem in comparing trends in aggregate time series data: many things are changing over time, which makes it extremely difficult to isolate the effects of a single causal factor. For example, during the 1990s, the black poverty rate was falling—but over the same period, spending on police and prisons increased substantially, the crack epidemic of the late 1980s began to ebb, and the first birth cohorts exposed to legalized abortion in the early 1970s started to reach adolescence (Levitt 2004).

In the end, neither aggregate trends nor cross-country comparisons reveal the strong connection between disadvantage and crime that is suggested by cross-sectional, within-country comparisons of the crime experiences across more versus less disadvantaged citizens. But despite being commonly invoked in public debates, none of these comparisons is capable of isolating the causal effects of poverty on crime. Adjudicating whether there is indeed a causal connection between poverty and crime requires stronger research designs.

9.3 Conceptual Framework

Social policies that are designed to increase families' income or reduce the level of disadvantage in their neighborhoods may influence criminal behavior through a variety of different mechanisms. The relevant mechanisms likely depend on the specific policy lever employed. In this section, we lay out a conceptual framework that helps clarify the key mechanisms through which different antipoverty policies might affect criminal behavior. Our intent is to highlight which potentially relevant mechanisms have complementary versus offsetting effects and how the design of a social program may influence its net impact on crime.

We focus on understanding criminal behavior by juveniles because, as noted in the preceding, this is the population for which the best empirical evidence is available. Late adolescence and early adulthood are the peak ages of criminal offending. Juveniles are also in a formative stage of human capital development (in terms of academic, socioemotional, and behavioral skills; decisions about schooling attainment; and health). Because this kind of human capital formation appears to be strongly predictive of criminal behavior (see, for example, Lochner and Moretti [2004] and Lance Lochner's chapter in this volume [chapter 10]), we consider it to be a potentially important mechanism.

To put our framework in a larger context, we begin with the canonical model from Gary Becker for the "supply of criminal offenses." The number of offenses, *O*, that an individual commits during any particular period is determined by:

$$O = O(p, f, u),$$

where *p* is the probability of conviction per offense, *f* is the punishment per offense, and *u* is a "portmanteau variable" that captures other relevant factors like the income available to the individual through the legal labor market and his or her willingness to engage in illegal activities (Becker 1968, 177).⁷ Becker's focus is on the optimal amounts of *p* and *f*—how society can most efficiently minimize the social costs of crime by manipulating the likelihood of being caught and the punishment for a given crime. While this focus is important for criminal justice policy, our analysis here shifts attention to the *u* term. In fact, we might consider the question of whether resources should be transferred from mass incarceration to social programs to effectively be

^{7.} We assume this last variable is scaled to have a positive relation to the number of offenses, so anything that increases *u* will increase crime and vice versa.

a question of the relative impacts of *p*, *f*, and *u* on *O* as well as the relative costs to society of achieving changes in these three "inputs" to crime.

To help us think through how various antipoverty policies might affect criminal behavior, we view u—an individual's inclination toward criminal behavior—as shaped by five interacting factors: parental wealth, parental time investment, a youth's level of human capital, the wealth of all other families in an individual's neighborhood, and local neighborhood resources like schools or police. These factors are clearly not independent. For example, human capital will be a function of both parental time and wealth and potentially neighborhood wealth and resources as well. Parent time and wealth are jointly determined by parents' labor supply decisions but are two distinct resources that might independently affect their children's criminal behavior. Because the determinants of u are likely to depend on previous as well as current investments and experience, changes in the potentially relevant factors that influence offending behavior might have varying effects on crime by age. We return to this idea briefly when we discuss the empirical evidence.

9.3.1 Effects of Resource Transfer Programs

Thinking about the role of these five factors helps us trace through the potential effects on criminal behavior from an increase in family income. We begin by analyzing the simplest case: how crime may change in response to a simple cash transfer. The direct effect of increased income, holding other factors constant, is likely but not certain to decrease crime. All else equal, a youth should have less incentive to steal something desirable if his or her parents can afford to buy it. More income may also change a family's routine activities in a way that reduces the likelihood that potential victims and offenders interact (Cohen and Felson 1979). For example, buying a car could reduce the risk that a child is victimized by a gang on the walk to school every day or even feels the need to join a gang for protection along that walk. On the other hand, additional income could lead to increased consumption by household members (potentially by youth as well as parents) of goods like alcohol and drugs, which contribute to crime through diminished inhibitions, capacity for planning, or increased levels of aggression. The partial effect of increasing income while holding other inputs constant is, therefore, ambiguous.

Even a simple cash transfer that increases family income, however, is not likely to have just this ceteris paribus effect; it will also create changes in other relevant inputs. Most clearly, more income may increase children's human capital. There is a large research literature suggesting that more human capital would reduce crime in a variety of ways—by providing better labor market options so that crime is relatively more costly or by decreasing the appeal of illegal activity. Empirically, human capital measures like intelligence quotient (IQ) scores are one-half to two-thirds of a standard deviation lower for criminal offenders compared to the general population (for some reason, these disparities tend to be somewhat larger for verbal than for nonverbal intelligence); more serious offenders have yet lower IQ scores still (Herrnstein 1995, 49–50). People with relatively higher human capital may also better appreciate the consequences of their actions or have higher levels of what psychologists and neuroscientists call executive functioning, which is related to self-regulation skills such as "inhibitory control, strategies of problem solving, memory, and self-monitoring" (Posner and Rothbart 2007, 80). Previous research has shown that a range of socioemotional and behavioral skills related to aggression, self-control, self-efficacy, moral reasoning, attribution of blame, and emotional coping, in some cases even when measured fairly early in life, are predictive of crime and related behaviors (see Agnew 1992; Herrnstein 1995; Heckman, Stixrud, and Urzua 2006; and chapter 8 by Patrick L. Hill and his colleagues in this volume).

However, as human capital theory makes clear, the size of the effect of income depends on how much of the increased wealth parents spend on investments in their children. Even parents who care deeply about their children's developmental outcomes do not care *exclusively* about those outcomes. So parents who receive additional income are likely to spend at least part of this extra money on normal goods that are not necessarily developmentally productive. In this case, only some fraction of each dollar transferred would be expected to improve child outcomes. Mayer (1997) confirms this idea empirically, finding that when low-income parents get additional income, they tend to spend it largely on additional housing expenditures, transportation, and food consumed away from home—not the physical inputs that seem most related to children's human capital development, such as books or developmentally enriching activities like museum visits.

Another possibility is that increased family income could change the productivity of parents' human capital investments in their children even if it does not change the absolute amount of investment. For example, previous research suggests that poverty status is positively correlated with the likelihood of suffering from depression and other mental health disorders, which could interfere with parents' ability to produce children's human capital or to successfully supervise them.⁸ In this case, increased income could reduce

^{8.} Moore et al. (2006) find that 10.4 percent of children in families under 200 percent of the poverty line have mothers with depressive symptoms; for families over 400 percent of the poverty line, the proportion drops to 2.3 percent. Data from the National Comorbidity Survey-Replication (NCS-R) suggests that minorities and people with fewer years of schooling attainment are, if anything, somewhat less likely than others to have had a mental health disorder over their lifetime but are somewhat more likely to have a disorder in the past twelve months (Kessler et al. 2003, 2005). One explanation for this pattern is that more disadvantaged populations seem less likely than others to either receive mental health treatment or to receive treatment from a mental health specialist (Wang et al. 2005). Frank and Meara (2009) use data from the National Longitudinal Survey of Youth 1979 (NLSY79) and find that maternal mental health is strongly correlated with negative child outcomes, even when analyses are done that compare siblings within the same families.

stress and mental health problems among parents, potentially reducing crime by improving the quality of parenting and supervision that children experience (i.e., increasing the productivity of the inputs in the human capital production function).

Increased income may also change the amount of time parents spend with their children. Economic theory suggests that an increase in income from a cash transfer is likely to decrease the amount of time parents spend at work—more money creates an income effect that reduces work and increases leisure. If parents spend some or all of this extra time with their children, we might expect a decrease in crime because of increased parental supervision (Aizer 2004; Dwyer et al. 1990) or increased human capital development, assuming that time children spend interacting with parents is more developmentally productive than the most likely alternative activities.⁹

These changes in parental time use become particularly important when we recognize that antipoverty programs are often structured in ways that intentionally or unintentionally change the incentives for parental work. For example, many programs reduce benefit payments as family earnings increase, which effectively increases the marginal tax rate on earnings. Working in the other direction, many programs have rules that require a variety of behaviors in exchange for funding, from spending on a particular kind of good (as with food stamps or public housing) to meeting work requirements (as with Temporary Assistance for Needy Families, or TANF, and the Earned Income Tax Credit, or EITC). The way these rules shape work incentives varies considerably by program, and the details are likely to be important factors in how social spending changes u. We expect policies that increase parental work along with family income may have smaller crimereducing effects than policies that are work neutral or reduce work effort. Policies that raise income and parental work could in principle even increase youth crime despite the gain to families in income.¹⁰ This is not intended to reflect a value judgment about the merits of incentivizing work as part of antipoverty programs, because society has many different objectives for such programs—we are only noting the potential consequence for this one important behavioral outcome.

So far, we have implicitly assumed an intervention that increases income for just a small subset of families, leaving the income of everyone else unaffected. Such a policy change would reduce both the relative and absolute

^{9.} One important potential exception is the case in which compensatory early childhood programs like Head Start substitute for parent time with very young children; for more on that literature, see Lochner (chapter 10 in this volume).

^{10.} In reality, any particular policy's effects on work effort are likely to be heterogeneous. For example, at low income levels, the EITC increases the marginal returns to legal work, suggesting more work income and less time at home. Over the phase-out income range, however, the EITC effectively increases marginal tax rates for certain workers, potentially creating the reverse effect. Such design details are likely to be important in considering the net impact of poverty policies on crime.

level of poverty experienced by program participants although the only sort of policy that would affect just a small share of families would be one that either limited eligibility to a narrow population or else conditioned receipt on behavioral requirements that only a relatively small subset of families could meet. In such cases, declines in *relative* poverty could be a relevant mechanism in affecting criminal behavior above and beyond the results of changing the family's absolute material condition. For example, if income boosts human capital, and people are competing on the basis of their skills for prosocial rewards like grades or jobs (Jencks and Mayer 1990), changes in relative poverty may matter independently of the increase in income or human capital on its own. In other words, the ratio of own wealth to everyone else's wealth may be important. Relative poverty also features prominently in sociological ideas like "strain theory" and its variants, which suggest that crime results from frustration when people are unable to achieve goals like wealth and status and that this frustration may be particularly acute when people are observing others who are more successful (Merton 1938; Agnew 1992).

Larger-scale antipoverty policies, on the other hand, would change the income of most others in the community as well, not just individual families. This possibility further complicates our prediction of the net effect of a transfer policy on criminal behavior. Large scale antipoverty programs would change the absolute poverty status of program recipients, but not their relative economic status—or at least not relative to other families in the bottom part of the income distribution. Large-scale transfer programs could generate some beneficial impacts for youth if, for example, having more affluent neighbors increases the ability of poor families to borrow from friends in response to unexpected negative income shocks. However, such policies would also increase the value of the "loot" (televisions, cars, etc.) that is available to steal in a community and increase aggregate consumption levels of goods like alcohol and drugs that augment the risk of involvement with crime as either offender or victim (that is, "criminogenic" and "victimogenic" goods).

9.3.2 The Theoretical Effects of Policies that Reduce Neighborhood Poverty

Also of interest are policies designed to reduce the exposure of poor families to high-poverty neighborhood environments, which often takes the form of subsidizing poor families' moves to wealthier neighborhoods.¹¹ The net

^{11.} A few policies, like the Harlem Children's Zone, focus on improving existing neighborhoods rather than moving families out of poor neighborhoods. In general, such programs should have a similar positive effect on neighborhood wealth as voucher-type programs. They may also increase family income by improving the local economy (thus minimizing any negative effects of increased relative poverty) but decrease parental time at home (if parental employment increases). We discuss such policies briefly in the concluding section but focus on the theoretical effects of mobility policies because they are both more prevalent and better researched.

effect on criminal behavior from this type of change depends on the magnitude of the effects from changing relative poverty, changes in the availability of loot, and other spillovers that come from living near more affluent adults such as increased exposure to middle-class adults who serve as role models to signal the value of schooling and work (Wilson 1987).

Moving to a less disadvantaged neighborhood might also change other attributes of one's neighbors or neighborhood. For example, neighborhoods might vary in the norms that local adults have about various behaviors, including parenting, which could affect the quantity or quality of time parents spend with children and, hence, their human capital. For example, Annette Lareau (2002, 2003) finds that the middle-class families she studies tend to view parenting as an effort in "concerted cultivation," while many poor and working-class families in her sample view child development as the "accomplishment of natural growth," something that just happens. The contrast in parenting practices across class is particularly stark in the realm of language use. Hart and Risley (1995) find that by age three, children in professional families speak more per hour and have larger vocabularies than the parents of children in families on welfare. Social norms regarding the value of schooling and work could potentially also vary across neighborhood wealth levels, as in the "culture of poverty" arguments from Oscar Lewis (1959, 1966). Wealthier neighborhoods may also affect youths' penchant to engage in crime through informal social control or the willingness of local adults to help enforce shared prosocial norms (Sampson, Raudenbush, and Earls 1997).

Moving to a less disadvantaged neighborhood could also improve the quality of the local institutions that families experience. Improved local institutions could reduce crime directly. For example, if policing in some neighborhoods is better than in others, p or f might be higher in more economically affluent areas, thus reducing crime by increasing its costs. More affluent neighborhoods may also have higher-quality schools, thus increasing human capital, in part because higher-quality teachers seem to prefer teaching more affluent and higher-achieving children (Hanushek, Kain, and Rivkin 2004). On the other hand, it is possible that increasing neighborhood wealth could have adverse effects on criminality as well. In schools, the competition for grades or other prosocial rewards may be more intense in affluent areas and thus harm human capital, as under relative deprivation or competition models (Jencks and Mayer 1990). New job opportunities for parents may also decrease the time they have available to spend with their children, resulting in increased crime, but augment family income, which may create an offsetting effect.

In sum, theory yields ambiguous predictions about the sign, much less the magnitude, of the crime effects resulting from increasing family or neighborhood income. The five factors we consider—family income, parental time with children, children's human capital, neighborhood income, and neighborhood resources—are likely to have varied and interacting effects.

Still, some predictions do come out of our conceptual framework. Although income transfers may or may not reduce crime on net, those that reduce (or at least do not change) parental labor supply seem likely to generate larger declines in criminal behavior than those that push parents to work more. Neighborhood mobility programs also have theoretically ambiguous effects on criminal behavior but may generate the largest changes in criminal behavior in cities where there is relatively more variation across neighborhoods in social environments and the quality of local institutions.

In addition to highlighting the interactions between human capital development, parental time use, and neighborhood resources, our framework also suggests that the effects of smaller-scale income-transfer programs differ from those of large-scale programs. This is both because decisions to participate in crime might be affected by relative as well as absolute poverty status and because large-scale income-transfer programs may increase communitylevel consumption of criminogenic and victimogenic goods like drugs and alcohol. In our review of the evidence, we will discuss what is known about these candidate mechanisms.

9.4 Empirical Evidence

We have seen that the crime effects of policies designed to mitigate family or neighborhood poverty are hard to predict on the basis of theory alone. Raising incomes may push in different directions on different determinants of crime, making the overall impact dependent on whether the changes in factors increasing crime are more or less important than the ones decreasing it. Given the theoretical uncertainty about the size, or even direction, of the effect of additional income on crime, we now turn to a consideration of the empirical evidence.

Table 9.1 summarizes the results of the studies discussed in more detail in the following, listing both intent-to-treat (ITT) and treatment-on-thetreated (TOT) estimates. Our discussion focuses on the latter because we aim to compare program benefits to costs, and program costs are usually calculated on a per-participant basis. As table 9.1 reports, Jacob and Ludwig (2010) find that a transfer program providing a 50 percent average increase in family income (for families averaging around \$14,000 in annual income) reduces violent and total arrests by 20 percent for males. In terms of potential mechanisms, there is some evidence that changes in human capital and time with parents may underlie their findings. A variety of welfare-to-work programs that increase parental labor supply confirm that parents' time at home may be an important determinant of adolescent outcomes. Although few direct crime measures are available in these studies, parental work incentives decrease adolescent test scores by .06 standard deviations, while grade repetition and special education services increase. For older adolescents, suspensions, expulsions, and school dropout also increase.

Income transfer (housing voucher function in the family income transfer (housing voucher fundy income \rightarrow increase: average of 50% additional income. Human capital \rightarrow increase: 10% increase in graduation, no change in test sconof housing and nonhousing, no change in consumption of housing and nonhousing, no change in consumption Time with parents \rightarrow increase: 10% increase in graduation, no change in test sconof housing and nonhousing, no change in consumption Time with parents \rightarrow increase: 10% increase in graduation, no change in test scone change in neighborhood; lacob and Ludwig 2010) Remity income \rightarrow increase: 10% increase in graduation, no change in test scone change in neighborhood; lacob and Ludwig 2010) MDR welf parents \rightarrow increase: 10% increase in graduation, no change in test scone change in neighborhood; lacob and Ludwig 2010) Remoting and nonhousing, no change in constructs \rightarrow <i>flat</i> : no change in test scone change in the static scone change in work, incentive only program. Bloom and Michalopoulos 2001; MDRC welfare-to-work experiments: Gennetian, and Duncan 2003) Family income \rightarrow increase: 14% additional income in earnings supplement protecting et al. 201; Morris, Duncan and Rade repetition (12%) and special education (12%). For older adole dopout (4%) and supersions/expulsions (28%). Mobility program MDRC welf are-to-work experiments: Remetian, and Duncan 2005) Time with parents \rightarrow decrease: typically 10–30% increase in parental work. Mobility program Mobility program: Mobility program Mobility program Mobility program Mobility pro	litional income.	Effect on crime
Earnings supplementsMDRC welfare-to-work experiments: (Bloom and Michalopoulos 2001; (Bandiy income > increase: 14% additional income in earnings supplement pro Gennetian et al. 2002; Hamilton et al. 2001; Morris, Duncan, and Rodriguez 2007; Morris, Gennetian, and Duncan 2005)MDRC welfare-to-work experiments: <i>Family income > increase:</i> 14% additional income in earnings supplement pro change in work-incentive only programs. <i>Human capital → decrease:</i> 14% additional income in earnings supplement pro change in work-incentive only programs. <i>Human capital → decrease:</i> 14% additional income in earnings supplement pro change in work-incentive only programs. <i>Time with parents → decrease:</i> typically 10–30% increase in parental work. <i>Neighborhood income and resources → flat:</i> Some indication of increased mov measures of neighborhood quality, no change in those available. Mobility program and Katz 2005; Kling, Human capital → <i>increase, in direct measures:</i> .08 SD (ITT) increa notive. <i>Human capital → increase, in other attributes.</i> . <i>CHAC, public housing at baseline:</i> family <i>income → not vet analyzed.</i> Human capital → <i>increase:</i> .05 SD (ITT) reading score in <i>Human capital → increase:</i> early results suggest. 05 SD (ITT) reading score in	aduation, no change in test scores. arental work. change in observable neighborhood	TOT: ~20% decrease in both violent and total arrests, driven largely by males. ITT: ~12% decrease in violent and total arrests.
$ \begin{array}{llllllllllllllllllllllllllllllllllll$	ome in earnings supplement programs, no 06 SD (though increases for young children), fucation (12%). For older adolescents, more %). % increase in parental work. me indication of increased moving. Few in those available.	No direct measures, some indications of increased behavioral problems.
math. <i>Time with parents</i> → not yet analyzed. <i>Neighborhood income and resources</i> → <i>increase:</i> ~40% decrease in neighborhoor rate, plus changes in other attributes.	nt or earnings. s): Increase education outcomes for females t measures: .08 SD (ITT) increase in parent : ~40% decrease in neighborhood poverty rate t05 SD (ITT) reading score increase, .08 for t05 SD (ITT) reading score increase, .08 for	Moving to Opportunity: TOT: 38% decrease in youth violent-crime arrests. Large decrease (85%) in arrests for property crimes for females, but large increase (77%) in property-crime arrests for male youth. TT: 16% decrease in youth violent-crime arrests: 35% decrease in female property crime arrests; 32% increase for males. CHAC, public housing at baseline: TOT: 43% decrease in total arrests and 50% decrease in violent arrests, driven largely by males. TT: 18% decrease in total arrests and 24% decrease in violent arrests.

In terms of mobility programs, a 40 percent decrease in neighborhood poverty rates (off of a base of around 40 percent tract poverty rate) leads to about a 40 percent decline in arrests for violent crime (Kling, Ludwig, and Katz 2005; Ludwig et al. 2010). Male property crime, however, may increase, although the two mobility studies we discuss provide conflicting evidence on this possibility. In terms of mechanisms, moves to lower-poverty areas seem to increase educational outcomes of girls and the mental health of parents but not parental income or employment (Kling, Leibman, and Katz 2007). The following section discusses these findings in greater detail. We begin with evidence on the effects of additional family income and then turn to the effects of mobility policies designed to deconcentrate neighborhood poverty.

9.4.1 The Effects of Family Poverty on Crime

Our review of the literature focuses on the question of greatest relevance for policy: would reducing poverty also reduce crime, and, if so, how can we maximize the cost-effectiveness of each dollar spent? The first step in answering this question is to establish whether there really is a causal relationship between income and crime.

A large body of observational evidence has clearly established that individual income levels are negatively correlated with crime and positively correlated with a variety of human capital measures (e.g., cognitive, socioemotional, and behavioral skills) that are predictive of less criminal behavior (Bjerk 2007; Duncan and Brooks-Gunn 1997; Duncan, Ziol-Guest, and Kalil 2010). Yet the fact that family income is correlated with crime, even after conditioning on a wide range of observable attributes, is not conclusive evidence for a causal relationship with criminal behavior. It may be that other omitted variables actually drive both poverty and crime. Distinguishing between the causal effects of poverty and other factors is crucial for public policy purposes. If poverty is a by-product of some other individualor family-level characteristics that also lead to criminal behavior, providing additional income may not have much impact on crime. In our review of the evidence, we focus on studies that attempt to overcome the selection bias problem by exploiting variation in family income that is unrelated to individual or family choices.

A subset of the literature uses naturally occurring variation in income to overcome omitted variable concerns and estimate the effect of income on young children's human capital. Some studies compare the outcomes of siblings who experienced different levels of family incomes as they were growing up. These types of studies generally provide supportive evidence for a strong protective association between family income and various developmental outcomes of children that seem to be predictive of future criminality (Duncan et al. 1998; Levy and Duncan 1999; Blau 1999). Other studies rely on policy- or event-induced variation in family income, like changes caused by local plant closings or variation in the generosity of social program benefits across family structure, time, or region (Dahl and Lochner 2005; Milligan and Stabile 2008; Oreopolous, Page, and Stevens 2005). Most of these studies find that increased income improves a range of child and family human capital indicators, from test scores to aggression to maternal depression, although several important studies have also found contrary evidence (see Mayer 1997; Smolensky and Gootman 2003).

For our purposes, there are two main limitations to these types of studies. The first is that in most cases, there is still concern about omitted variables that may confound the apparent causal link between income and human capital. In the sibling comparisons, for example, one must necessarily wonder whether whatever underlying factors are generating changes in family incomes over time might also have independent effects on children's outcomes. If so, the results of these studies would not isolate the causal effects of income per se. Similarly for plant closings, it is possible that the nonmonetary effects of parental job loss (family stress, disruptive moves) in addition to the income changes themselves might be affecting children's outcomes. The studies of policy variation are often similarly problematic. For example, Dahl and Lochner (2005) take advantage of the fact that the EITC became substantially more generous over the 1990s and that these EITC expansions generated larger changes in family income for some families than others as defined by baseline characteristics like mother's age, race, and educational attainment. Their study, however, assumes that the only reason children in families with different observable characteristics like mother's age, race, and education experience different trends over the 1990s in test scores is because some families gain more from the EITC expansions than others. One might worry about confounding from other changes in policy or social factors that are disproportionately relevant for lower-socioeconomic status (SES) families.¹² In other words, few of these studies provide convincing evidence that increased income actually caused improved child outcomes, which is a problem for policymakers who want to know about the causal effects of providing additional income.

The second limitation of these kinds of studies is that none of them measures crime. Even if we did believe that these studies identify income's causal role, they provide information on how income affects test scores, earnings later in life, social and motor skills, and child or parent mental

12. For example, families who would have benefited most from increases in the EITC over the 1990s may also have benefited more from the tripling over this period in federal Head Start spending (see Head Start Program Fact Sheet at http://eclKc.ohs.acf.hhs.gov/hslc/Head%20 Start%20Program/Head%20Start%20Program%20Factsheets/HeadStartProgra.htm) or from the fact that the violent crime rate declined by nearly 30 percent and the homicide rate declined by nearly 40 percent (U.S. Statistical Abstracts 2001). Additionally, the fraction of American children covered by Medicaid increased by perhaps as much as two-thirds during that period (Mann, Rowland, and Garfield 2003), and the welfare caseload declined by around one-half (Sawhill et al. 2002).

health. Although estimates of how money affects these kinds of human capital measures are undoubtedly important, they are necessarily only part of the story. What we are missing is both a sense of how much an increase in human capital measures like achievement test scores actually decrease crime as well as whether an income increase affects other inputs like parental time or neighborhood quality in important ways.¹³

Jacob and Ludwig (2010) try to overcome these problems by taking advantage of a housing-voucher wait-list lottery that was carried out in the city of Chicago. In 1997, the firm running the city's voucher program, the Chicago Housing Authority Corporation, Inc. (CHAC), opened the program's waiting list for the first time in a dozen years. Because more than 82,000 income-eligible families applied, far more families than there were vouchers available, CHAC randomly assigned applicants to the program wait-list. More than 90 percent of the voucher applicants were living in private-market housing at baseline. These families receive a voucher subsidy (on average, around \$8,265 per year per family), of which they take around half in the form of reductions in out-of-pocket spending on housing (i.e., increased spending on all other goods), while the rest of the subsidy is consumed in the form of more housing. The equivalent variation of the voucher is around \$6,860 per year, compared to an average baseline income of around \$14,000. The equivalent variation of the voucher is not so dramatically different from the government cost of the voucher because low-income families would devote a sizable share of additional cash to extra housing anyway.

Interestingly, families living in private-market housing devote almost all of the extra housing consumption to increasing the quality of the housing unit rather than neighborhood—vouchers generate almost no detectable changes in neighborhood environments for these families. This finding is not unique to the Chicago sample—a similar pattern was found in the Experimental Housing Allowance Program of the 1970s (Struyk and Bendick 1981).¹⁴ The key observation for present purposes is that for these previously

13. Lochner and Moretti (2004) supply an estimate of the effect of a particular measure of human capital—increased schooling due to changes in compulsory schooling laws—on crime. It is tempting to use this finding to supply the missing estimate of human capital's effect on crime. It is not clear, however, how to translate this effect into an estimate of other human capital measures' impacts on crime, nor does the estimate capture the other changes we might expect from an income transfer program like changes in parental income or time use. We will use Lochner and Moretti's estimates in the following in discussing policy-induced changes in high school graduation and years of schooling in particular.

14. This pattern seems unlikely to be due simply (or at least exclusively) to discrimination in the housing market or the reluctance of private-market landlords to accept housing vouchers because there is variation across voucher recipients in their baseline neighborhood poverty rates and other characteristics. The variation across families in baseline neighborhood conditions, combined with the fact that voucher receipt has little detectable impact on the average neighborhood environments of families that receive vouchers, means that even voucher families in relatively less economically disadvantaged baseline neighborhoods are able to find and lease up rental units in either their baseline neighborhood or one with similar attributes. Presumably, part of the explanation for why families who are already living in private-market housing do unsubsidized families who were already living in the private housing market, the voucher "treatment" is essentially a large resource transfer rather than a neighborhood mobility intervention (that is, a change in family income rather than neighborhood wealth or resources). The vouchers generate large increases in nonhousing consumption as well as housing consumption.

The large increase in income caused by housing voucher receipt results in an almost 20 percent decline in both violent and overall arrests, which is driven largely by crime reductions among males. To the extent that arrests change proportionally to the number of offenses committed, this study provides us with the total effect of wealth on offenses: on average, when families receive a housing voucher with an equivalent variation of around 50 percent of baseline income, crime decreases by around 20 percent (which implies an income elasticity of something like -0.4).

While this is a very useful estimate in and of itself, the CHAC study also provides some insight into the mechanisms underlying this change. A closer look at the relevant mechanisms may be particularly important to policymakers as it can help to uncover what actually changed when incomes increased, which should inform decisions on how to most cost-effectively target government spending. For example, the Chicago study finds that voucher receipt increased high school graduation rates by 2.5 percentage points (about 10 percent of the control mean), which, like the effect on criminal behavior, is driven largely by males. This suggests that the additional income served to increase the human capital of program youths (as measured by educational attainment; there was no change in test scores).¹⁵ Lochner and Moretti's (2004) study suggests a 10 percentage point increase in high school graduation decreases violent crime by 20 percent, which implies that the 2.5 percentage point increase in the CHAC sample's graduation rate may be responsible for about a 5 percent decrease in violent crime. In other words, the increase in schooling attainment caused by the 50 percent increase in income may account for perhaps one-quarter of the decrease in crime resulting from that income change.

So what accounts for the other three-quarters of the voucher (income change) effect on crime? One possibility is that graduation only captures part of human capital's influence on crime so that other, unmeasured aspects of human capital also put downward pressure on crime rates. Our model also suggests two other possibilities, both of which find some support within the CHAC evidence. One is the direct effect of family income on crime.

not use vouchers to move into substantially different types of neighborhoods is that the presence of family and friends (social networks) in the baseline neighborhoods creates a source of path-dependence in residential locations.

^{15.} Given the study's large sample, the zero impacts on achievement test scores are fairly precisely estimated: the 95 percent confidence intervals around these point estimates suggest the effect of a subsidy with equivalent variation of \$6,860 on Iowa Test of Basic Skills (ITBS) reading and math scores is no larger than .04 and .07 of a standard deviation, respectively.

Although the evidence is imprecise, unemployment insurance records provide some support by indicating that the CHAC youth may have reduced their formal-sector work (Jacob and Ludwig 2010). Decreased work may be an indication that the direct effect of money matters, either through an income effect that decreases the desire for money-producing work (legal or illegal) or through changes in routine activities (fewer late-night work shifts that increase the chances that youth are out at high-risk times). Given the imprecision of the estimates, however, it is difficult to say with confidence how important this mechanism is likely to be.

The second possibility, which is accompanied by more precise evidence, is the effect of the amount of time parents spend with their children. Data from quarterly unemployment insurance (UI) earnings records show that receipt of a housing voucher reduces the quarterly earnings (and, hence, presumably the total hours worked) for the mothers of CHAC youth by around 10 percent (Jacob and Ludwig 2011). If less time at work means more time at home, this evidence tentatively suggests that the amount of adult supervision youth receive (or adult help in human capital development) may be an important determinant of criminal behavior.

The possibility that parental time at home with children is an important determinant of crime should be of interest to policymakers given the policy push to encourage single women with children to join the workforce (via TANF work requirements and EITC earnings supplements). Some additional direct evidence on this point comes from a set of thirteen different welfare-to-work experiments run by the Manpower Demonstration Research Corporation (MDRC) that tested different work-incentive "treatments." All treatments increased parental employment, generally between 10 and 30 percent. Some treatment groups experienced little change in total family income because increased earnings were offset by reductions in welfare payments, while in other experiments the treatment groups received additional income from earnings supplements. Analysis of the pooled set of experiments provides evidence that increased maternal work leads to increased rates of academic problems for adolescents and that any increases in income that families may have experienced were not enough to offset the harmful human capital effects of the declines in parental time that families experienced.¹⁶ Although reduced human capital is predictive of increased criminal behavior, it is not a direct measure of the programs' effects on crime.

16. Across all program types, treatment-group mothers were less likely than controls to report that their adolescents were performing above average in school (-15 percent), and more likely to report they had repeated a grade (+12 percent) or had received special education services (+12 percent). In the studies that tracked older adolescents, mothers of those aged fourteen to sixteen at baseline reported increased suspensions and expulsions (+28 percent) as well as school dropout (+46 percent) (Gennetian et al. 2002). Importantly, these negative effects on adolescents were generally not statistically different between the programs that did not although they did tend to cluster among programs that did not (Gennetian et al. 2002). This suggests that changes in maternal employment, rather than

Evidence on changes in treatment youths' delinquent and criminal behavior is more limited.¹⁷

It is important to note that the effects of changes in maternal time and family income appear to be heterogeneous across age groups. In evaluating the same set of studies, Morris, Duncan, and Rodrigues (2007) show that each \$1,000 increase in family income improved test scores for two- to fiveyear-olds by .06 standard deviations (and had a deleterious effect of similar magnitude for ten- to fifteen-year-olds). Work-only programs had no effect on cognitive skills, which would seem to provide evidence against William Julius Wilson's argument that parental work itself may improve child outcomes by imposing discipline and regularity (Wilson 1996). Much of the beneficial impact of family income on young children seems to come from increased utilization of center-based care among families that experience higher income (Gennetian et al. 2007).

The implications of the finding on young children are twofold. First, it may be that work-based income supplements could have long-term crime reduction potential, as young children experience human capital gains that may reduce their future levels of crime. This may or may not offset the harm to adolescents' human capital (and, hence, crime), depending on the magnitude of the long-term effects. Second, the reasons for this differential impact across ages are worth exploration. If it is simply that young children are still supervised at daycare when their parents are at work, while older children are left alone, one policy solution might be an increase in after-school activities that provide supervision for older children. If it is that youths' human capital is differentially responsive to the same change in inputs (as in Cuhna and Heckman 2008), policymakers may want to think more carefully about the ages of children in families targeted by work incentive programs.

The apparent role of parents' time with children raises the possibility that parenting interventions could achieve similar results at a lower cost by targeting one of the relevant mechanisms. A focus on increasing the time parents invest in their children or improving the quality of that time is appealing, particularly given the vast literature connecting high-quality parenting to positive child outcomes. Parenting does seem to respond to intervention—both home-based programs and center-based programs that include

changes in income itself, may be driving the behavioral impacts. The findings also suggest that whatever increases in income some of the treatment groups experienced did not provide enough of a protective effect on adolescents to offset the harmful effects of reductions in mother time at home, and, in fact, the increased income within the context of less maternal supervision could even have exacerbated the socially harmful changes in adolescent behavior.

^{17.} Of the thirteen welfare-to-work studies evaluated, only one measured delinquent behaviors directly. It showed increases in truancy and alcohol use but not drug or weapons use (Gennetian et al. 2002). Of the three programs with data on police contact, one showed increased involvement with law enforcement. However, the fact that these outcome measures are limited to a small number of programs, some of which had attrition problems at follow-up, means that the crime results should be interpreted with some caution.

a parenting component have been shown to change adult behavior, including nurturance toward children, disciplinary actions, and, in some cases, the amount of developmentally productive material in the home (Brooks-Gunn and Markman 2005). These changes do translate into improved child outcomes although to varying degrees. Center-based programs with parenting components appear to be more successful than just home visitation at improving school readiness and academic outcomes, but classroom-based parent training programs have also reduced behavioral problems in young children (Brooks-Gunn and Markman 2005). The malleability of parenting behavior raises the possibility that even something as simple as tasking social service caseworkers with encouraging more positive parenting styles among clients might reduce juvenile crime.

Returning to our main topic, taken together the CHAC and MDRC evidence suggests that the design of income-transfer programs may matter a great deal in shaping their effects on juvenile crime. Programs that increase income and reduce parental work effort may reduce juvenile criminal involvement through some combination of increased human capital, a standard income effect that reduces "work effort" by youth in the illegal sector and increased parental time available for monitoring and supporting youth. But programs that push parents to work more may have more complicated effects that differ across the ages of the children in the home.

Several limitations of the available evidence about antipoverty programs are important to mention. First, the data are not rich enough to determine whether there are nonlinear effects of income, which would be important for targeting income transfers in the most efficient way possible. A second limitation is that our discussion thus far focuses on partial equilibrium effects—what happens when we give a specific family additional income. It is possible that any large-scale policy designed to raise family income would also increase the level of wealth in neighborhoods more generally. Although we will see that the evidence on general equilibrium effects is limited, we can, at a minimum, learn something about the effects of changing neighborhood wealth and resources from the empirical literature about "neighborhood effects" on crime.

9.4.2 The Empirical Effects of Changing the Concentration of Poverty on Crime

Observational evidence makes clear that crime is concentrated in poor neighborhoods. This raises the possibility of reducing crime through policies aimed at deconcentrating poverty—either by moving poor families to richer neighborhoods or by improving the economic well-being and general social conditions of neighborhoods as a whole. Drawing causal conclusions from the observed correlations between the concentration of poverty and crime is complicated by selection concerns. Most families have at least some degree of choice about where they live. Observational studies might confound the causal effects of neighborhood environments with those of hardto-measure individual and family characteristics associated with neighborhood selection.

Perhaps the best observational study of "neighborhood effects" is the Project on Human Development in Chicago Neighborhoods (PHDCN), which is a longitudinal study of approximately 3,000 children ages zero to eighteen in 1997. The PHDCN includes a great deal of information about child and parent outcomes as well as the neighborhood, school, and family context that these children experience over a seven-year study period. The rich set of covariate information available for the PHDCN study sample, together with the data set's longitudinal structure, help control for many potential confounders.

Sampson, Raudenbush, and Earls (1997) find that the willingness and capacity of local adults to work together to enforce shared prosocial norms, what they called "collective efficacy," is one of the strongest neighborhoodlevel predictors of violent crime. Sampson, Morenoff, and Raudenbush (2005) find that differences between blacks and whites in neighborhood attributes, particularly the share of the neighborhood that is immigrant and the proportion that works in professional or managerial jobs, may explain a large portion of the black-white difference in self-reported violent behavior.¹⁸ Both findings suggest that the types of adults in a neighborhood may reduce crime in a number of ways: by shaping the probability of being caught or, potentially, human capital more generally (e.g., through the expectations children have about the returns from education). The PHDCN data also suggest that children who witness gun violence are more likely to be involved in violent crime later on (Bingenheimer, Brennan, and Earls 2005), which, if taken at face value, suggests that the specific crime events occurring in poor neighborhoods might contribute importantly to criminal behavior.

Given concerns about identification in the observational literature, a great deal of policy attention has been devoted to the quasi-experimental Gautreaux mobility program in Chicago, which resulted from a 1966 racial discrimination lawsuit against the Chicago Housing Authority (CHA) filed by a public housing resident named Dorothy Gautreaux. As a result of a U.S. Supreme Court decision, the CHA began providing public housing families with housing vouchers that could be used only in neighborhoods in the city or suburbs that were less than 30 percent black. Most families are thought to have accepted the first available apartment (Kaufman and Rosenbaum

18. Although we might worry that PHDCN data are self-reported, the findings are corroborated by more reliable data. After linking the PHDCN youth data to official arrest records, Kirk (2008) also finds that neighborhood characteristics have a significant impact on the probability of arrest. In this case, concentrated disadvantage is the only significant neighborhood-level predictor, both before and after controlling for self-reported offending (Kirk 2008). Unlike Sampson, Morenoff, and Raudenbush (2005), however, Kirk does not control for the concentration of professionals; it is unclear if measures of disadvantage would still significantly predict arrests if he had. 1992). Gautreaux families who wound up moving to the suburbs experienced dramatically different neighborhood environments from those moving to other parts of the city, both with respect to sociodemographic characteristics like racial composition (an average of 96 percent white versus 99 percent black) and neighborhood safety. Relative to city movers, Gautreaux suburban movers were much less likely to consider their neighborhood dangerous at night (31 versus 71 percent, respectively), and only 2 percent of suburban movers reported that their new neighborhood was unsafe during the day, compared to 44 percent of city movers (Rubinowitz and Rosenbaum 2000).

Although reports of safety are not synonymous with crime outcomes (which have not been directly examined for the Gautreaux sample), the differences in human capital are suggestive. A comparison of a survey sample of 342 families found that suburban movers were 75 percent less likely than city movers to have dropped out of school (20 percent versus 5 percent), more likely to be in a college track in high school (24 versus 40 percent), twice as likely to attend any college (21 percent versus 54 percent), and almost seven times as likely to attend a four-year college (4 percent versus 27 percent). The only educational attainment measure for which the suburban students did not appear to be doing significantly better than the city students was their grade point average, which could simply reflect higher grading standards in suburban schools (Rubinowitz and Rosenbaum 2000, 134–36).

Given evidence that human capital generally, and educational attainment specifically, have a negative effect on crime, we can reasonably assume that if moving to a wealthier suburban neighborhoods increases human capital, it would also exert downward pressure on individual crime, holding all else equal. If we use Lochner and Moretti's (2004) estimates for the effects of schooling on crime, these suburban-city differences in schooling outcomes in Gautreaux would suggest that arrest rates should be around 7 to 10 percent lower for suburban movers for all crimes and up to 20 or 30 percent lower for violent crimes. This is necessarily only a partial effect, however, because we do not have direct crime measures that would also capture the effects of any changes in parent income or time use from new employment opportunities and community influences or the new availability and protection of loot. An additional limitation of this evidence is that the Gautreaux study was not a true randomized experiment. Families did have some choice in whether they accepted the first apartment offered, and there is some evidence that families who ended up in the suburbs were different at baseline from those who ended up in the city (Votruba and Kling 2009).

Fortunately, the Gautreaux results helped motivate the U.S. Department of Housing and Urban Development (HUD) to carry out a large-scale randomized mobility experiment known as Moving to Opportunity (MTO). Since 1994, a total of 4600 low-income families with young children living in public housing in five cities (Baltimore, Boston, Chicago, Los Angeles, and New York) were randomly assigned into three different groups: the experimental group (offered housing vouchers to move that could only be used in Census tracts with 1990 poverty rates below 10 percent), Section 8-only group (unrestricted vouchers), and a control group that did not receive any additional services under MTO but did not lose access to other social services to which they were otherwise entitled. Around 41 percent of families assigned to the experimental group relocated through the program, as did 55 percent of those assigned to the Section 8-only group.

Five years after baseline, experimental families who moved with an MTO voucher lived in Census tracts with 2000 poverty rates 17 percentage points lower than control families (who lived in tracts with 39 percent poor, on average), with smaller impacts on share minority (nearly 10 percentage points compared to a control mean of around 88 percent) (Ludwig et al. 2008). In other words, the vouchers clearly created changes in neighborhood quality, in terms of both poverty and other observable neighborhood characteristics, which are convincingly independent of any individual or family factors that might confound a causal story in nonexperimental data. As such, they can help us identify whether neighborhood quality affects crime overall, while MTO follow-up data can potentially provide some insight into mechanisms.

The moves induced by the MTO vouchers did have a significant effect on criminal involvement. Follow-up data measured around five years after baseline finds that parents and children who move through MTO feel safer than controls and experience household victimization rates around 20 percent lower than the control group's victimization rate (Orr et al. 2003). Through the first two years after random assignment, the offer of a housing voucher creates a net reduction in youth criminal behavior: both male and female youth in the experimental group experience fewer violent-crime arrests compared with those in the control group, with treatment-on-thetreated effects on the order of 40 percent of the control mean. Females are also arrested less often for other crimes as well.

However, by three or four years after random assignment, the treatment effects for male and female youth diverge. Although the beneficial effects on most crime types persist for female youth, property crime arrests and self-reported rates of other antisocial or risky behaviors become more common for experimental than control group males (Kling, Ludwig, and Katz 2005; Kling, Liebman, and Katz 2007).¹⁹

Kling, Liebman, and Katz (2007) use variation in poverty rates across and within MTO cities to explore whether the effects of the voucher vary by neighborhood poverty. They find that changes in risky behavior (they do

19. Because social harm is much greater for violent than property crime, the net effect of MTO moves is to substantially reduce the social costs of criminal behavior by MTO youth.

not analyze crime directly) vary fairly linearly with neighborhood poverty rate although in opposite directions for boys and girls (girls engage in less risky behavior as neighborhood poverty decreases, whereas boys engage in more). This evidence is useful in establishing that it is not the move, per se, that drives the effects of the voucher, but rather the characteristics of the new neighborhood. It does not, however, identify which aspects of neighborhood quality captured in a poverty rate actually shape criminal behavior.

For policymakers who are considering mobility policies as a crime reduction tool, it is important to understand which aspects of the neighborhood environment matter most in determining criminal behavior. Ludwig and Kling (2007) find that the largest treatment effects on violent-crime arrests are evident in the cities in which the MTO experimental group experiences the largest decline in percent minority. Based on the postmove survey of MTO participants, Ludwig and Kling hypothesize that this is due to the increased presence of drug markets in racially segregated neighborhoods. The MTO experimental group families also wound up moving into neighborhoods with higher-quality policing services compared to controls, and so an increased deterrent threat of punishment could also play some role in explaining MTO's role in reducing violent behavior. (Note that if the likelihood of arrest is higher in low-poverty areas, the MTO analysis may overstate any adverse crime impacts of MTO moves by increasing propertycrime arrests among male youth even if actual criminal behavior was constant or decreased, and the MTO effect on female youth might be even more beneficial than the arrest data reveal.) The MTO families also experienced pronounced improvements in parents' mental health (Kling, Leibman, and Katz 2007), raising the possibility that the improved neighborhood conditions served to increase the time parents spent with their children or the productivity of that time. As explained in the preceding, such changes may have direct effects on crime in terms of supervision as well as indirect effects through human capital improvements.

In terms of the overall, reduced form estimate of the effect of improved neighborhood quality on crime, some corroborating evidence comes from the study of the Chicago CHAC housing voucher lottery described in the preceding (Ludwig et al. 2010). Unlike with families who are living in privatemarket housing at baseline for whom voucher receipt generates a large change in household consumption but almost no change in neighborhood environments, voucher receipt for families who live in public housing at baseline generates changes in Census tract characteristics of a similar magnitude to MTO. The change in neighborhood poverty rates in both cases is about 40 percent of the control mean, with relatively little effect in either study of voucher use on neighborhood racial segregation (Ludwig et al. 2008, 2010). In other words, providing vouchers to those in public housing turns out to be a mobility intervention rather than simply a large income transfer.

For youth who were ages twelve to eighteen at baseline, the intent-to-treat

effect from being offered a CHAC voucher is a reduction in violent-crime arrests by around 24 percent, while the effect of actually leasing up with a voucher (the effects of treatment on the treated) is a 50 percent arrest reduction from the control complier mean. In the Chicago CHAC voucher study, the results are driven by males, and there is no sign that these results dissipate over time. Importantly, there is no evidence of any increase in propertycrime arrests for males at any point during the postlottery period. The evidence of declines in criminal behavior is clear among those who were adolescents at the time their families received vouchers and somewhat less clear for children who were younger when their families were offered vouchers (though the number of such children in the study sample is not very large).

The CHAC study also provides some additional insight into potential mechanisms. Although the results for schooling outcomes are preliminary, they suggest that the test scores of children in public-housing families who were offered a voucher increased (ITT of about .05 standard deviations in reading and .08 in math). This result suggests that increased school quality and schooling attainment may play a role in reducing juvenile crime—a finding consistent with studies of randomized lotteries for public school choice that suggest moving to lower poverty schools with higher achieving peers and better quality teachers reduces arrests, particularly for high-risk groups (Cullen, Jacob, and Levitt 2006; Deming 2009a).

However, academic improvement cannot be the only mechanism through which neighborhood change affects criminal behavior: in the CHAC study, voucher receipt leads to reduced rates of violent-crime arrest among young household heads (eighteen to thirty at baseline) as well as juveniles. These household heads are obviously not directly affected by any changes in school quality that result from changing neighborhoods but would be affected by other aspects of the neighborhood environment.²⁰ So while improved schools and increased test scores may be relevant to the impact of neighborhoods on criminal behavior, the CHAC evidence suggests that they are not the only driving mechanism. Early results also tentatively suggest that there is little change in parental labor supply for families in public housing at baseline. Stronger conclusions will have to await further analysis of the CHAC data.

20. Jacob (2004) uses variation in neighborhood environments among Chicago public housing families generated by plausibly random variation in the timing of when their housing projects were demolished by the Chicago Housing Authority. Jacob's study finds no statistically significant impact on achievement test scores although this finding may not be inconsistent with the studies reported in the preceding because Jacob did not directly examine criminal behavior. After all, the randomized MTO study found declines in violent-crime arrests for male and female youth, as well as declines in all other types of offenses for female youth, without detectable changes in children's achievement test scores. Note also that the studies described in the preceding all focus on examining "neighborhood effects" on families who volunteered to move, which stands in contrast to Jacob's sample of families who were all compelled to move when their housing project was demolished. Why we see an increase in property arrests among male youth who move into lower-poverty areas in MTO but not in the Chicago CHAC voucher study is unclear. Because the CHAC study did not collect survey data, it is impossible to know if changes in collective efficacy or maternal depression differed across the two studies in a way that affected boys differently. Alternatively, it may be that moving out of a poor neighborhood in Chicago is substantively different from moving out of a poor neighborhood in the other MTO cities. While MTO seemed to have more pronounced beneficial impacts on achievement test scores in Chicago than in most of the other demonstration sites (Burdick-Will et al., forthcoming), Chicago does not seem to be very different from the other MTO sites in terms of the effect on overall youth outcomes (Kling, Liebman, and Katz 2007, 97) and if anything had more adverse impacts on violent-crime arrests than in the other MTO sites (Ludwig and Kling 2007).

Taken together, the MTO and CHAC findings provide evidence that increases in neighborhood quality can have a sizable negative effect on crime rates, with the possible exception of property crime. The evidence is less clear in terms of the mechanisms at work. We have seen some tentative indications that maternal depression (and presumably the accompanying changes in time use and parenting quality) could be at work, as could changes in adult social norms, the probability of being caught, and the availability of things to steal.

9.5 Policy Implications

We began our review of the evidence with two key questions: whether policies intended to reduce either individual poverty or its geographic concentration could reduce crime on net, and, if so, how to maximize the costeffectiveness of such policies by targeting the mechanisms that matter. We believe that the empirical evidence now available, particularly studies that rely on policy-induced variation in social conditions, supports the conclusion that both kinds of poverty policies can, in fact, reduce crime. The clearest crime reductions are among adolescent boys, perhaps not surprising given that males commit the bulk of crimes and that many other policy interventions appear to effect boys and girls differently (Almond and Currie 2010). The magnitudes of the policies' effects are potentially large: a 50 percent increase in income reduces male arrests by 20 percent, and a 40 percent reduction in neighborhood tract-level poverty reduces violent crime by almost 40 percent for both genders. (The latter may increase male property crime as well, though the total social costs of criminal behavior by youth who relocate still declines; see Kling, Ludwig, and Katz 2005.) Our confidence that moving to a less disadvantaged neighborhood reduces criminal involvement is strengthened by similar findings from studies of public school choice lotteries (Cullen, Jacob, and Levitt 2006; Deming 2009a).

Although the evidence on mechanisms is much less clear, there is some suggestion that the quality and quantity of the time parents spend with adolescents may be quite important. This finding is particularly relevant given the current set of poverty policies like TANF and the EITC that incentivize work, and it deserves further research attention. Additionally, while school quality and improved cognitive skills may be part of the story, neither seem to be the sole drivers of observed reductions in criminal behavior from policies that seek to either increase family income or help families move to less distressed neighborhoods.

The conclusion that both income transfer and mobility programs can reduce crime is important in and of itself. But the fact that the small-scale interventions reviewed here are capable of decreasing criminal offending does not mean that large-scale versions of these interventions would necessarily be capable of achieving similar effects. A second question worth considering is how the benefit-cost ratios of these interventions compare to alternative uses of government resources.

In the case of mobility programs like MTO, the cost to the government of providing low-income families with housing vouchers rather than public housing may be very low, and, in fact, many housing economists claim that the cost per housing unit is lower for vouchers than public housing (Olsen 2003; Shroder and Reiger 2000). The more important types of costs with mobility programs are nonmonetary. Large-scale efforts to relocate poor families out of high-poverty areas could lead to more reconcentration of poverty than what is observed with the smaller-scale mobility programs that have been studied to date. The "tipping" literature in economics suggests that even small changes in neighborhood composition can generate large mobility responses by other residents (Schelling 1971; Becker and Murphy 2000; Card, Mas, and Rothstein 2008). Perhaps more important, most existing studies only consider the effects of mobility programs on the movers. There may also be broader impacts on both originating and destination neighborhoods caused by changing neighborhood composition. While there are a few studies that suggest policy efforts to resort disadvantaged families across schools or neighborhoods might lead to overall declines in the aggregate crime rate (Weiner, Lutz, and Ludwig 2009) or related outcomes like educational attainment and income (Cutler and Glaeser 1997), identification is more challenging with aggregate-level studies.

In any case, the scope for public policy to resort poor people to less disadvantaged or distressed social settings seems quite limited. As discussed in the preceding, giving housing vouchers to families who are already living in private-market housing enables them to move into rental units that have dramatically higher rents. Yet families spend almost all of this rent increase on higher unit quality rather than improved "neighborhood quality." One candidate explanation is path dependence in residential locations due to social network ties, which could suggest the potential value of housing policies that enable groups of families to move together. This type of "buddy voucher" has, to our knowledge, never been tried. While providing housing vouchers to public housing families does lead them to move into less distressed neighborhoods and might even save the government money (Olsen 2003), only 1 percent of all people living in metropolitan areas are in public housing (Quillian 2005). Public school choice plans could serve as an alternative way to resort children across one particularly important social setting, but the scope for substantial changes in economic or racial segregation will be limited by the massive amounts of persistent residential segregation in American schools. For example, consider that Cook County, Illinois residents are 67 percent white, compared to just 9 percent in the Chicago Public Schools.

An alternative to moving families out of disadvantaged neighborhoods is to try to directly change those aspects of the neighborhood that produce crime through community-level interventions. Perhaps the most famous example is the Harlem Children's Zone, which tries to improve the wellbeing of poor families in high-poverty areas through expanded educational and social services. While there is some debate about the effects of Harlem Children's Zone on children's academic outcomes (for example Dobbie and Fryer [2010] versus Whitehurst and Croft [2010]), perhaps most relevant for present purposes is that to the best of our knowledge, no study has yet examined the effect of this intervention on criminal behavior by neighborhood residents. A related community-level strategy is to try to change the social norms surrounding violence that may mediate the link between neighborhood poverty and crime, which is one of the strategies employed by the Ceasefire program in Chicago. This strategy is motivated in part by the belief within the public health community that efforts to change social norms have contributed to long-term declines in smoking and increased use of seat belts. One observational study of Chicago Ceasefire by Skogan et al. (2008) seems encouraging although this is an area where additional research activity would seem to have high payoffs.

In terms of the other social policy strategy we consider here—income transfer programs—the data reviewed in this chapter suggest that providing some families with large changes in income, but leaving the incomes of most everyone else in the community unchanged, can reduce criminal behavior among youth. In principle, larger-scale resource transfer programs could generate less beneficial impacts if relative as well as absolute poverty status matters because a large across-the-board change in incomes for everyone at the bottom of the income distribution will, unlike a small-scale program, create little change in the relative income standing of program recipients (at least relative to other people in the bottom part of the distribution). Moreover, large-scale resource transfers may increase the "loot" available in the community to steal and increase community-level consumption of criminogenic and victimogenic goods like drugs and alcohol. It is interest-

ing to note, for example, that aggregate-level studies find that improved macroeconomic conditions yield mixed impacts on rates of different types of crime (Cook and Zarkin 1985; Ruhm 1995, 2000; Raphael and Winter-Ebmer 2001; Ruhm and Black 2002; Evans and Moore 2009).²¹

In addition to the question of whether transfer programs could successfully be taken to scale, it is also important to consider whether doing so would be more cost-effective than alternative uses of government resources. While we do not know of any good benefit-cost analysis of programs that simply provide cash to poor families, a reasonable guess for the benefit-cost ratio for the effects of providing housing vouchers to previously unsubsidized families (i.e., those living in private-market housing already for whom voucher receipt is "near cash") is about 1.5 (Carlson et al. 2009).²² As is standard in benefit-cost analyses, this calculation assumes that the monetary benefit to the recipients offsets the monetary cost to taxpayers and, thus, counts the amount of the voucher itself as a transfer rather than a "cost" of the program. It does, however, include the following as true costs of the program: administrative costs not passed onto recipients (e.g., the cost of the employees used to process the voucher claims, etc.) and the deadweight loss associated with raising tax revenue and providing in-kind rather than cash benefits (e.g., distortion of labor supply). The benefits include welfare increases from all sources, not just changes in criminal behavior.

21. In addition, Evans and Topoleski (2002) find that rates of violent crime, motor vehicle theft, and larceny increase after casinos open up on Indian reservations although we note that this is not a pure test of the effects of across-the-board resource transfers because casinos also change the composition of who spends time on these reservations. Other quasi-experimental studies have found that plant closings and the opening of Indian gaming facilities are associated with improvements in adult mental health or children's externalizing disorders (Costello et al. 2003; Dew, Bromet, and Schulberg 1987; Kessler, House, and Turner 1987).

22. The Carlson et al. (2009) benefit-cost estimate is not perfect because the study mixes together the behavioral effects of giving vouchers to people in public housing (for whom voucher receipt is essentially a neighborhood mobility treatment) with the behavioral effects of giving vouchers to families already in private-market housing (for whom voucher receipt is more like a near-cash transfer). But the Chicago study is, nonetheless, not out of line with the ballpark estimate from Carlson et al.; giving vouchers to private-market households reduces the social cost of crime committed by youth by around \$400 to \$3,300 per year, while the impact of vouchers on high school graduation rates (increase of around 10 percent) might add another \$10,000 or \$12,500 in lifetime benefits per child per voucher-receiving household as well. This last figure is derived as follows: data from the fifty largest school districts in the United States suggest an average four-year high school graduation rate of about 50 percent (Swanson 2009), while estimates by Henry Levin and his colleagues suggest that the present value of the benefits to society from having a child graduate from high school rather than drop out may be on the order of \$200,000 to \$300,000 per year. Levin et al. (2007) report public savings on the order of \$209,000 per high school graduate. Their calculation is conservative in only counting increased tax payments as a benefit from improved labor market prospects; if we also include the increased earnings to the high school graduate him- or herself, the benefits may be closer to \$300,000 although Levin's calculation also includes around \$30,000 in benefits from crime reductions, so if we subtract that off to avoid double counting, the right figure might be more toward the midpoint of this range. Our estimate for the savings per child is then equal to 10 percent of a 50 percent baseline high school graduation rate (so change in graduation likelihood of 5 percentage points) times \$250,000.

The 1.5 ratio suggests that the total benefits of this type of "near cash" transfer to poor families may outweigh the costs. Our conceptual framework and review of the literature suggests that transfer programs that increase parental work effort (thus decreasing time at home) may have smaller beneficial impacts on crime in the short term or even adverse effects. In comparison, programs that target direct improvements in the developmental environments of young children (including but not limited to parenting) do appear to have quite high benefit-cost ratios, even if one were to focus exclusively on the crime-related benefits (Belfield et al. 2006; Campbell et al. 2002; Deming 2009b; Garces, Thomas, and Currie 2002; Karoly et al. 1998; Ludwig and Miller 2007; Ludwig and Phillips 2007; Schweinhart et al. 2005). Previous research also provides at least suggestive evidence for high benefit-cost ratios for interventions that seek to develop socioemotional and behavioral skills among high-risk adolescents and young adults (see for example Lipsey, Landenberger, and Wilson 2007; Pearson et al. 2002; Wilson, Bouffard, and MacKenzie 2005; Drake, Aos, and Miller 2009; and Hill et al. chapter 8 in this volume). Both transfer programs and human capital interventions may have larger benefit-cost ratios than incarceration although there is considerable uncertainty about the benefits and costs to society of imprisoning the marginal offender (Donohue 2009).

It is important to note that policies designed to reduce family or neighborhood poverty are likely to have a range of other, noncrime benefits that we do not discuss here. They may also have social costs, as evidenced by the public's disagreement about the role of government in providing financial or in-kind assistance to poor families. Our argument is not about the worth of these types of social programs as a whole. Our point is more limited but nonetheless relevant to broader policy decisions: even though efforts to improve social conditions may reduce crime, there are important limits to the scope of these policies (in the case of mobility interventions) and important questions about whether income transfers would be the most cost-effective way to reduce crime, if that is the key objective of interest.

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Comment Ilyana Kuziemko

This chapter deftly handles a wide variety of evidence on the relationship between family and neighborhood poverty and criminal activity, and this comment will not attempt to discuss all the points the authors make. Instead, it will focus on the relationship between parental labor supply and children's human capital formation. The authors highlight several studies that suggest that programs that incentivize low-income single parents to work might have negative and even criminogenic effects on children. As the authors note, this idea runs counter to much of the thinking behind U.S. poverty policy, which since at least the 1990s has been heavily influenced by the notion that parents of poor children—usually single mothers—should work outside the home.

In this comment, I first discuss the trade-offs parents make in deciding how to divide their time endowment between working outside the home and spending time at home with their children and how these trade-offs vary with

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