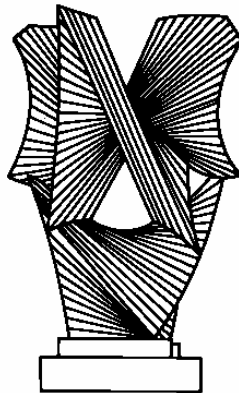


CHICAGO

JOHN M. OLIN LAW & ECONOMICS WORKING PAPER NO. 370
(2D SERIES)

PUBLIC LAW AND LEGAL THEORY WORKING PAPER NO. 189



ECONOMIC COSTS OF INEQUALITY

Richard H. McAdams

THE LAW SCHOOL
THE UNIVERSITY OF CHICAGO

November 2007

This paper can be downloaded without charge at the John M. Olin Program in Law and Economics Working Paper Series: <http://www.law.uchicago.edu/Lawecon/index.html> and at the Public Law and Legal Theory Working Paper Series: <http://www.law.uchicago.edu/academics/publiclaw/index.html> and The Social Science Research Network Electronic Paper Collection: http://ssrn.com/abstract_id=1028874

Economic Costs of Inequality

Richard H. McAdams
Bernard D. Meltzer Professor of Law
University of Chicago Law School
1111 E. 60th Street
Chicago, IL 60637
Tel: (773) 834-2520
Fax: (773) 702-0730
rmcadams@uchicago.edu

ABSTRACT: This brief chapter surveys some of the economic literature concerning the instrumental costs of material inequality. Economic theory predicts, and econometric evidence finds, that inequality increases crime and political corruption and, in certain circumstances, constrains growth.

Economic Costs of Inequality

Richard H. McAdams

Forthcoming in *THE ROLE OF RACE IN LAW, MARKETS, AND SOCIAL STRUCTURES*
(E.C. Jordan & C.J. Ogletree, eds., Russell Sage 2007).

Despite its reputation, economics has a great deal to say about inequality. The economic starting point is the distinction between allocation from distribution. Allocative issues concern how best to use resources to produce the most value to society, *i.e.*, to produce the combination of goods and services that the individuals in society value the most. Distributive issues concern who gets to consume the goods and services once produced. Early law and economics scholars tended to focus entirely on issues of allocation by using a normative metric – wealth maximization or Kaldor-Hicks efficiency – that self-consciously gave no weight to distributional concerns.¹ But wealth maximization was never the dominant normative criteria in the larger discipline of economics. When Richard Posner first articulated a theory of law based on wealth maximization, economists such as Mitchell Polinsky criticized the theory for ignoring the distributional analysis of welfare economics.² More recently, Louis Kaplow and Steve Shavell take great care to explain that welfare economics evaluates states of the world by considering *any and all* effects the state has on the well-being of individuals, which obviously includes a consideration of distribution.³

¹ Most famously, see Richard A. Posner, *Utilitarianism, Economics, and Legal Theory*, 8 J. LEGAL STUD. 103 (1979); Richard A. Posner, *The Ethical and Political Basis of the Efficiency Norms in Common Law Adjudication*, 8 HOFSTRA L.REV. 487 (1980).

² A. Mitchell Polinsky, *Economic Analysis As a Potentially Defective Product: A Buyer's Guide to Posner's Economic Analysis of Law*, 87 HARV. L. REV. 1655, 1679-80 (1974). Indeed, Posner has since made some concessions about the incompleteness of wealth maximization. See Richard A. Posner, *Wealth Maximization and Tort Law: A Philosophical Inquiry*, in PHILOSOPHICAL FOUNDATIONS OF TORT LAW (David G. Owen, ed., 1995).

³ See LOUIS KAPLOW & STEVEN SHAVELL, FAIRNESS VERSUS WELFARE 28-38 (2002)

Indeed, there are so many links between economic theory and inequality, I should first identify the paths I will not explore. One possibility is to construct and defend a “social welfare function” that gives intrinsic weight to equality of welfare.⁴ In other words, within the tools of welfare economics, one can argue against the utilitarian ideal that seeks to maximize the *sum* of individual utilities in favor of some sort of egalitarian ideal that seeks to maximize a function that gives weight to the equality of welfare, as by maximizing the *product* of individual utilities. As I explain, however, this sort of “high theory” is not the focus of this chapter. Another issue for the economics of inequality concerns the *means* of redistribution, including whether one should redistribute wealth only through the tax system or, in addition, via legal doctrine. This point has generated an interesting literature,⁵ but again, that is not my subject.

In this chapter, I want to show how economics addresses the big picture question – why should we care about inequality? – without assuming a welfare function that values equality intrinsically. I examine a more mundane and practical part of the economic answer: an account of the economic costs of inequality. Given any plausible conception of social welfare, certain effects of material inequality are bad.

⁴ See KENNETH J. ARROW, SOCIAL CHOICE AND INDIVIDUAL VALUES (1951); JOHN C. HARSANYI, RATIONAL BEHAVIOR AND BARGAINING EQUILIBRIUM IN GAMES AND SOCIAL SITUATIONS, ch. 4 (1977); AMARTYA SEN, CHOICE, WELFARE AND MEASUREMENT (1982). See also the discussion and citations in KAPLOW & SHAVELL, *supra* note 3, at 15-38. One could also venture outside of welfarism to explore Amartya Sen’s concern with developing individual “capabilities,” which implies a need for greater equality. See AMARTYA SEN, COMMODITIES AND CAPABILITIES (1985).

⁵ Kaplow and Shavell famously claim that society should redistribute only through the tax system. See Louis Kaplow & Steven Shavell, *Why the Legal System Is Less Efficient Than the Income Tax in Redistributing Income*, 23 J. LEGAL STUD. 667 (1994); Louis Kaplow & Steven Shavell, *Should Legal Rules Favor the Poor? Clarifying the Role of Legal Rules and the Income Tax in Redistributing Income*, 29 J. LEGAL STUD. 821 (2000). For criticisms, see Chris W. Sanchirico, *Taxes Versus Legal Rules AS Instruments for Equity: A More Equitable View*, 29 J. LEGAL STUD. 797 (2000); R. Avraham, D. Fortus, & Kyle Logue, *Revisiting the Roles of Legal Rules and Tax Rules in Income Redistribution: A Response to Kaplow and Shavell*, 89 IOWA L. REV. 1125 (2004).

Economics more famously identifies the *benefits* of income and wealth inequality. To the extent that inequality is meritocratic – so that those who contribute more to social welfare receive more personal wealth – unequal material rewards will encourage greater effort and risk-taking, including greater investment in human capital. Obviously, an issue of great dispute is exactly how meritocratic the observed inequality in an economy is, how much inequality is the product of greater effort or risk-taking. But given the social productivity of meritocratic inequality, economics offers a strong reason to avoid guaranteeing complete material equality. Such a guarantee would undermine the incentives for work, investment, and risk-taking that are vital to production.

The question I address, however, is whether economics offers any instrumental reasons to avoid – at the opposite end of the spectrum – maximal inequality. Are there economic costs of inequality that must be weighed against the economic benefits? The answer is clearly yes. Even without giving a complete catalogue of those costs, in what follows, I address the economic theory and empiricism on the link between inequality and (1) crime; (2) corruption; and (3) poor growth.

I. INEQUALITY INCREASES CRIME

The standard economic prediction is that material inequality increases crime. The economic theory of crime views the decision to offend as a rational response to costs and benefits.⁶ The decision to steal, for example, involves a choice between two different ways of generating income: one can invest time in lawful production or in appropriating the property of others. The more that one's expected monetary returns from illegal work exceed that of legal

⁶ See Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. POL. ECON. 169 (1968).

work, the more likely one is to offend.⁷ Of course, sometimes one can both work lawfully and steal when the opportunity arises. But because owners act to protect their property from theft and the police seek to apprehend thieves, much casual theft is prevented or deterred. By contrast, professional theft is productive only because one has invested the time to learn generic skills and the facts needed for a particular “job.” To some extent one chooses between the occupation of thievery and a lawful occupation.

If so, then as Isaac Ehrlich noted decades ago, those with “legitimate returns” that are “well below the median have greater differential returns from property crimes and, hence, a greater incentive to participate in such crimes, relative to those with income well above the median.”⁸ As Edward Glaeser puts it: “[A]s inequality rises, the returns to crime increase for the poor (because rich victims because richer) and the opportunity costs of crime are lower (because the poor are poorer).”⁹ Conversely, with significant equality, those at the bottom are more likely to prefer their lawful means of generating income to stealing from those with only slightly more wealth. The theory thus predicts a positive relationship between inequality and property crimes, such as car theft, burglary, and robbery. The theory implies a similar positive relationship for any crime motivated in part by the acquisition of material value. Thus, black market crimes such as

⁷ To be more precise, if one’s expected returns are net of all costs, including non-monetary costs like guilt and shame, then one will offend if one’s expected returns from offending exceed one’s expected returns from not offending.

⁸ See Isaac Ehrlich, *Participation in Illegitimate Activities: An Economic Analysis*, in *ESSAYS IN THE ECONOMICS OF CRIME AND PUNISHMENT* 68, 87 (Gary S. Becker & William M. Landes eds. 1974). An earlier study, not by economists, but reaching the same conclusion is P. Eberts & K. Schwirian. *Metropolitan Crime Rates and Relative Deprivation*, 5 *CRIMINOLOGICA* 43 (1968).

⁹ See Edward L. Glaeser, *Inequality*, HIER Discussion Paper 2078 (July 2005). See also RICHARD A. POSNER, *ECONOMIC ANALYSIS OF LAW* 508 (5th ed. 1998)(“The forgone income of a legitimate alternative occupation is low for someone who has little earning capacity in legitimate occupations, while the proximity of wealth increases the expected return from crime.”).

drug trafficking should rise with inequality, as should financially-motivated murder, e.g., in violent clashes with rival drug suppliers.

In addition to Ehrlich's initial theory, there are two more economic reasons one might expect inequality to increase crime. One reason is that inequality may dilute the deterrent effect of legal sanctions.¹⁰ The dominant punishment in many wealthy nations, at least for serious crimes, is prison, yet the deterrent effect of prison depends on the perceived difference between life in prison and life out of prison. In a wealthy nation, prison may work well as a deterrent of the citizen of average wealth because the perceived difference is so great. But in a nation that forgoes torture and inhumane treatment of prisoners, the poorest citizen may live almost as badly outside of prison as he would inside prison, or at least the gap, and hence the deterrent, is much smaller. Thus, in economic theory, the costs of prison are lower for the poor. Inequality therefore negatively affects the deterrent efficiency of prison; more inequality means there are more people for whom prison threatens a lower cost. Of course, inequality means that there are more rich citizens who are especially deterred by the threat of prison, but because the relatively poor have the greatest incentive to offend (for the reasons Ehrlich gave), the loss of deterrence for them outweighs the gain in deterrence of the rich.

Finally, inequality may adversely affect the level of policing. According to economic theory and empiricism, more police raise the probability of detecting crime and therefore decreases crime.¹¹ But the provision of a public good like policing requires collective political

¹⁰ Earling Eide, *Economics of Criminal Behavior*, in *ENCYCLOPEDIA OF LAW AND ECONOMICS, VOLUME V. THE ECONOMICS OF CRIME AND LITIGATION* 345, 361 (Boudewijn Bouckaert & Gerrit De Geest, eds., 2000).

¹¹ See, e.g., Steven D. Levitt, *Understanding Why Crime Fell in the 1990s: Four Factors That Explain the Decline and Six That Do Not*, 18 *J. ECON. PERSP.* 163 (2004); Steven D. Levitt, *Using Electoral Cycles In Police Hiring To Estimate The Effects Of Police On Crime: Reply*, 92 *AMER. ECON. REV.* 1244 (2002).

action that is most likely when the actors are homogeneous in their demand for the good. When citizens are instead heterogeneous, differing in the type of good and the quantity they demand, the cost of their political organization is higher and the government will provide less of the good.

Glaeser explains:

For example, the rich might want a legal system focused on protecting property while the poor might be more concerned with preventing interpersonal violence in disadvantaged areas. Because these groups disagree, there is less willingness to invest in a common legal system than there would be if the population shared a common set of legal needs.¹²

One might add that the relatively rich are more capable of hiring their own private security (hiring as security guards those who otherwise have poor prospects for lawful income) and therefore opposing taxes that would pay for public police that also protect the poor from crime. To illustrate this point, Glaeser compares Bogota, Columbia, which has 12,000 police officers, with New York City, which has 28,000. “These two cities have similar populations, but Columbia is a particularly unequal nation.”¹³

To my knowledge, no one has tested Glaeser’s precise point because the studies tend to control for the level of policing (rather than measuring an effect of inequality on police). But considerable empirical evidence supports the general claim of the first two theories that inequality increases crime. In an early economic study, Ehrlich examined crime levels among the states in 1940, 1950, and 1960 and found that “[c]rimes against property (robbery, burglary,

¹² Edward L. Glaeser, “Inequality,” KSG Faculty Working Paper 05-056 at 11 (Oct. 2005).

¹³ Id. at 10.

larceny, and auto theft) . . . vary positively with the percentage of families below one-half of the median income.”¹⁴ After Ehrlich’s 1973 study, sociologists and economists explored the issue using different data and different statistical methods. Hsieh and Pugh conducted a meta-analysis of the literature in 1993 and found significant link between income inequality and violent crime.¹⁵ In 2000, Rodrigo Reis Soares reviewed and summarized the literature, finding it more mixed.¹⁶ Though there almost no studies finding a negative relationship, quite a few found no significant relationship to go along with quite a few finding a positive relationship between inequality and crime.¹⁷

¹⁴ Ehrlich, *supra* note xx, at 94. See also Belton M. Fleisher, *The Effect of Income on Delinquency*, 56 AMER. ECON. REV. 118 (1966).

¹⁵ Ching-Chi Hsieh & M. Pugh, *Poverty, Income Inequality, and Violent Crime: A Meta-Analysis of Recent Aggregate Data Studies*, 18 CRIM. JUSTICE REV. 182 (1993)(applying meta-analysis to 34 aggregate data studies reporting “76 zero-order correlation coefficients for all measures of violent crime with either poverty or income inequality,” of which “all but 2, or 97 percent, were positive” and, of those, “nearly 80 percent were of at least moderate strength,” meaning greater than 0.25).

¹⁶ See Rodrigo Reis Soares, “Development, Crime, and Punishment: Accounting for the International Differences in Crime Rates” (unpublished manuscript, March 28, 2000).

¹⁷ See *id.* at 27, Table 1, which categorizes the following fourteen studies: R. Allen, *Socioeconomic Conditions and Property Crime: A Comprehensive Review and Test of the Professional Literature*. 55 AMER. J. ECON. & SOC. 293 (1996)(using a time series of U.S. national data and finding no significant effect of inequality on crime); W.C. Bailey, *Poverty, Inequality, and City Homicide Rates*, 22 CRIMINOLOGY 531 (1984)(using a cross-section analysis of U.S. city data and finding no significant effect on murder); P.M. Blau, & J.R. Blau, *The Cost of Inequality: Metropolitan Structure and Violent Crime*, 47 AMER. SOC. REV. 114 (1982)(using cross-section analysis of Standard Metropolitan Statistical Area (SMSA) and finding a positive effect on murder and assault and no significant effect on rape or robbery); L. Carrol & P. Jackson. *Inequality, Opportunity, and Crime Rates in Central Cities*, 21 CRIMINOLOGY 178 (1983)(using cross-section analysis of U.S. cities data and finding a positive effect of inequality on burglary, robbery, and crime against the person); S. Danzinger & D. Wheeler, *The Economics of Crime: Punishment or Income Redistribution*, 33 REV. SOCIAL ECONOMY 113 (1975)(using U.S. national data for time series and finding a positive effect on robbery and no significant effect on burglary or assault; using cross-section analysis of SMSA and finding a positive effect on burglary, assault, and robbery); P. Eberts & K. Schwirian. *Metropolitan Crime Rates and Relative Deprivation*, 5 CRIMINOLOGICA 43 (1968)(using cross section analysis of SMSA data and finding positive effect on total crime); P. Fanjzylber, D. Lederman & N. Loayza. *Determinants of Crime Rates in Latin America and the World: An Empirical Assessment*, World Bank Latin American and Caribbean Studies - Viewpoints, Washington, 1998 (using cross-country panel data and finding a positive effect on homicide and robbery); R. Fowles & M. Merva, *Wage Inequality and Criminal Activity: An Extreme Bounds Analysis for the United States, 1975-90*, 34 CRIMINOLOGY 163 (1996) (using panel date for SMSA and finding a positive effect on aggravated assault, murder, and larceny, no significant effect on car theft, robbery, or burglary, and a negative effect

In more recent years, the issue has attracted increasing attention, and the newer wave of studies tends to confirm that inequality causes crime. Some of these studies introduce interesting methodological refinements. Soares, for example, notes that prior studies relied overwhelmingly on reported crime, even though there is significant under-reporting of crime. Soares finds that under-reporting systematically distorts the analysis of the link between inequality and crime and therefore examines the connection in two new ways: first, using victimization surveys and, second, using a statistical adjustment to reported crime. In the two cross-section analyses of international data, he finds a significant and positive relationship: inequality increases thefts, burglaries, and contact crimes such as robbery and assault. The effect is robust across specifications and quite large: in one specification, “a one time increase in the GDP per capita of the richest 20% in relation to the GDP per capita of the poorest 20% would imply an increase of 3.4%, 13.1%, and 10.1% in the rates of, respectively, thefts, burglaries, and contact crimes.”¹⁸

Matz Dahlbert and Magnus Gustavsson offer a different innovation: separating the effects of transitory changes in income from permanent changes. Using Swedish panel data from 1974 to 2000, they found that, while an increase in inequality of transitory income had no effect on crime,

on rape); D. Jacobs, *Inequality and Economic Crime*, 66 SOCIOLOGY & SOC. RES. 12 (1981)(using cross-section analysis of SMSA data and finding a positive relationship on burglary, grand larceny, and robbery); M. Kelly, *Inequality and Crime*, 82 REV. ECON. & STATISTICS 530 (2000) (using cross-section analysis of U.S. county data and finding a strong and robust effect on violent crime, but no significant effect on property crime); S.F. Messner, *Poverty, Inequality, and the Urban Homicide Rate*, 20 CRIMINOLOGY 103 (1982) (using a cross-section analysis of SMSA data and finding no significant effect on murder); E. Patterson, *Poverty, Income Inequality, and Community Crime Rates*, 29 CRIMINOLOGY 755 (1991) (using cross-section analysis on U.S. neighborhood data and finding no significant effect on burglary or violent crime); S. Stack, *Income Inequality and Property Crime: A Cross-National Analysis of Relative Deprivation Theory*, 22 CRIMINOLOGY 229 (1984) (using cross-section analysis across nations and finding a negative effect on property crime); K.R. Williams, *Economic Sources of Homicide: Reestimating the Effects of Poverty and Inequality*, 49 AMER. SOC. REV. 283 (1984)(using a cross-section analysis of SMSA data and finding no significant effect on homicide).

¹⁸ Id. at 19.

an increase in the inequality of permanent income significantly increased total crime.¹⁹ Other studies seek to separate the effects of inequality on the poorest from the more general effect. François Bourguignon, Jairo Nuñez and Fabio Sanchez²⁰ use panel data from seven Colombian cities over 20 years to isolate the effect inequality has on a particular group – those living in households where per capita income was below 80% of the mean. Though variations in inequality affecting those above this group did not affect crime rates, variations in inequality affecting this group did to a significant degree. Similarly, Anna Nilsson used individual level panel data to examine the effect of income inequality in Sweden from 1973 to 2000.²¹ She found a significant positive effect that the proportion of the population with income below 10% of the median on the incidence of property crime. Specifically, a “one-percentage point increase in the proportion of the population with an income below 10 percent of the median income would increase . . . the burglary rate with 5.9 percent, the number of auto thefts with 22.1 and the robbery rate with 9.1 percent, everything else held constant.”²²

Perhaps the most econometrically sophisticated study is the one Pablo Fajnzylber, Daniel

¹⁹ See Matz Dahlberg & Magnus Gustavsson, *Inequality and Crime: Separating the Effects of Permanent and Transitory Income* Uppsala University Working Paper Series 2005:20 (June 27, 2005).

²⁰ François Bourguignon, Jairo Nuñez and Fabio Sanchez, “What part of the income distribution does matter for explaining crime? The case of Colombia,” DELTA Working Paper #2003-04 (2002).

²¹ Anna Nilsson, *Income Inequality and Crime: The Case of Sweden*, IFAU Working Paper 2004:6 (4 May 2004).

²² *Id.* at xx. For a similar result involving South Africa, see Gabriel Demombynes & Berk Ozler, *Crime and Local Inequality in South Africa*, World Bank Policy Research Working Paper 2925 (2002)(controlling for police expenditures, unemployment, and inequality within a given police precinct, burglary rates, but not other crimes, “are 20% higher in jurisdictions that are the wealthiest among their neighbors”).

Lederman, and Norman Loayza published in the *Journal of Law and Economics* in 2002.²³ They report on panel data consisting of 5-year averages for 39 countries during 1965-95 for homicides and 37 countries during 1970-94 for robberies.²⁴ Across and within countries, they study the correlation between inequality as defined by various measures and crime, measured by robbery and homicide, while controlling for other influences on the crime rate and various forms of measurement error. They conclude that “[c]rime rates and inequality are positively correlated (within each country and, particularly, between countries), and it appears that this correlation reflects causation from inequality to crime rates, even controlling for other crime determinants.”²⁵ Specifically, they find that if “the Gini index”²⁶ – a standard measure of income inequality – “falls permanently by the within-country standard deviation in the sample (about 2.4 percentage

²³ See Pablo Fajnzylber, Daniel Lederman, and Norman Loayza, *Inequality and Violent Crime*, 45 J. LAW & ECON. 1 (2002). See also Pablo Fajnzylber, Daniel Lederman & Norman Loayza, *Crime and Victimization: An Economic Perspective*, 1 ECONOMIA 219 (2001).

²⁴ A related but smaller literature links crime to wages by showing that declining wages for the least skilled workers increases crime. See Eric D. Gould, Bruce A. Weinberg, and David B. Mustard, *Crime Rates And Local Labor Market Opportunities In The United States: 1979-1997*, 84 REV. ECON. & STAT. 45 (2002); Jeff Grogger, *Market Wages and Youth Crime*, 16 J. Law & Econ. 756 (1998); Richard B. Freeman, *Why Do So Many Young American Men Commit Crimes and What Might We Do about It?*, 10 J. ECON. PERSP. 25 (1996).

²⁵ Id. at 26. “This result is robust to changes in the crime rate when it is used as the dependent variable (whether homicide or robbery), the sample of countries and periods, alternative measures of income inequality, the set of additional variables explaining crime rates (control variables), and the method of econometric estimation.” Id. at 25.

²⁶ The Gini Index measures the deviation between a perfectly equal distribution of income (or, alternatively, wealth) and the actual distribution. Graphically, if a horizontal axis represents the percentage of the population and the vertical axis represents the percentage of society’s income, then one can represent perfect equality with a diagonal line from (0, 0) to (100, 100). Each additional percentage point of the population holds exactly one more percent of the income. In an unequal society, a (Lorenz) curve can represent the income of each individual in society, starting with the poorest and moving to the richest. The curve starts at the beginning of the diagonal (because 0% of the population must hold 0% of income), but falls below it because the poorest X% of individuals have less than X% of society’s income. The Gini Coefficient and Gini Index are measures of the size of the difference in the diagonal and the Lorenz curve for a society. See Kuan Xu, *How Has the Literature on Gini’s Index Evolved in the Past 80 Years?* (Dalhousie Univ. Dept. of Economics Working Paper)(Jan. 2004).

points), the intentional homicide rate will decrease by 3.7 percent in the short run and 20 percent in the long run.”²⁷ They also find that “a decline of 1 within-country standard deviation in the Gini coefficient (about 2.1 percent) leads to a 6.5 percent decline of the robbery rate in the short run and a 23.2 percent decline in the long run.”²⁸

To illustrate the possible magnitude of the effects within the United States, consider the findings of Ayse Imrohoroglu, Antonio Merlo, and Peter Rupert.²⁹ Their primary goal was not to explore the relationship between inequality and crime but to answer a question vexing economists: what explains the recent drop in crime in the United States? Much of the drop was in property crime – burglary, larceny, robbery, and motor vehicle theft – which fell from a rate of 5.6 per 100 inhabitants in 1980 to 4.65 in 1996.³⁰ These researchers found three primary causes of the decline: a greater probability of apprehension, a stronger economy, and the aging of the population (a relative decline in 20-28 year old males).³¹ In addition, they found a major influence on crime working *against* the decline: the “marked increase” in income inequality during this time period (from a standard deviation of 0.397 to 0.476).³² Thus, the crime drop would have been much larger had there not been this rise in inequality. Specifically, “[b]y holding inequality constant at its 1980 level we could have observed a 55% drop in property

²⁷ Id. at 17.

²⁸ Id. at 18. Eric Neumayer takes issue with these finding in *Inequality and Violent Crime: Evidence from Data on Robbery and Violent Theft*, 42 J. PEACE RES. 101 (2005).

²⁹ Ayse Imrohoroglu and Antonio Merlo, *What Accounts for the Decline in Crime?*, 45 INTERNAT’L ECON. REV. (2004).

³⁰ Id. at 2.

³¹ Id. at 3.

³² Id. at 14-15.

crime [by 1996] as opposed to a 17% drop.”³³

In sum, though the empirical connection between inequality and crime is not fully resolved and requires more study, there is significant evidence that it is real and substantial.³⁴ An economic cost of inequality is greater crime.

II. INEQUALITY CORRUPTS DEMOCRATIC GOVERNANCE

In a democratic society, economic theory predicts that material inequality will increase political corruption. One reason runs parallel to the above discussion of crime (and indeed, much corruption is criminal), but the effect works on the rich rather than the poor. When everyone has the same material wealth, it is difficult for any one person to “buy” government officials or agencies. The point is most easily understood by focusing on two individuals. Suppose *A* and *B* each wish to influence a court case, municipal legislation, or zoning board decision in inconsistent ways. Each considers offering a bribe to *C*, the relevant judge, legislator, or zoning board member. The “income effect” means that the maximum size of the bribe each is willing to offer depends on, among other things, the individual’s income. If *A* and *B* have the same income as *C*, then the maximum bribe either will offer will be lower and less tempting than if either *A* or *B* has much greater wealth than *C*. Being less, it is less likely to be accepted and therefore, given the risk of criminal sanctions, more likely to be deterred and never offered. Similarly, if *A* and *B* have the same income as each other, then it is possible neither will offer a bribe that the other can

³³ Id. at xx. See also Francois Bourguignon, *Crime as a Social Cost of Poverty and Inequality: A Review Focusing on Developing Countries*, in Shahid Yusuf, Simon Evenett and Weiping Wu, eds., *FACETS OF GLOBALIZATION* (2001).

³⁴ See Gary LaFree, *A Summary and Review of Cross-National Comparative Studies of Homicide*, in *HOMICIDE: A SOURCEBOOK OF SOCIAL RESEARCH* (M. Dwayne Smith & Margaret A. Zahn, eds., 1999)(positive link between inequality and homicide is one of the most robust findings of cross-national crime research).

simply match.

By contrast, inequality increases the chance that some private citizen, *A* or *B*, has sufficient resources, relative to *C*, to make a bribe tempting to *C*. And if *A* and *B* have highly unequal wealth, then the wealthier can bribe *C* without having to worry that the other can nullify the effect of the bribe by matching it. As the economists Edward Glaeser, Jose Scheinkman, and Andrei Shleifer put it: “If one person is sufficiently richer than another, and courts are corruptible, then the legal system will favor the rich, not the just.”³⁵ Thus, where inequality causes the poor to commit more theft-related crime, inequality causes the rich to commit more crimes of corruption because, the richer they are, the more productive their bribes are likely to be. Political influence should operate as a “luxury” good in that we expect an individual to use a greater percentage of his income on such good the more wealth he has *relative* to others in society.³⁶

Much economic theory focuses on a different reason to expect inequality to increase corruption. Inequality creates a divisive political issue – redistribution. In a democracy, the greater the inequality, the greater the expected demand for redistribution. At least in the common

³⁵ See Edward Glaeser, Jose Scheinkman, & Andrei Shleifer, *The Injustice of Inequality*, 50 J. MONETARY ECON. 199, 200 (2003).

³⁶ The story becomes more complex when we consider more than two individuals and apply interest group theory, but the essential point remains: it is harder for citizens to influence political actors with money when everyone has the same amount of money than it is for those who have a lot more than others. In general, an interest group’s influence depends on a variety of factors, but one is the amount of resources its members are willing to bring to bear to influence official action. One might think that the larger the interest group, the more influence it would have, but the offsetting effect is organizational costs which rise with the number of members. MANCUR OLSEN, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* (1965) sparked a large literature exploring how small groups have an advantage in organizing to use government power to enrich themselves at the expense of the rest of society. Wealth exacerbates this problem because now a smaller group is not only easier to organize, but may also now have greater resources than the much larger majority group it opposes. Even where groups of equal size care equally about some issue (as with individuals *A* and *B*), inequality means that the relative wealth of some give them an incentive to use their wealth to influence officials.

situation where the median income falls below the mean income (because wealth is skewed toward the upward levels since it is bounded by zero at the lower level), the median voter would gain by redistribution. So inequality creates a reason for the rich to defeat the political preferences of the majority for redistribution. “As income inequality increases, the rich have more to lose through fair political, administrative, and judicial processes . . . [and] will also have greater resources that can be used to buy influence, both legally and illegally.”³⁷ Being a minority, the rich cannot rely on voting power to prevent redistribution; they must use their superior wealth to influence the political process.

As a normative matter, some may defend this non-majoritarian outcome as being fair or efficient, at least if the rich earn their wealth by superior effort, talent, or risk-taking. But the problem does not end with non-redistribution. Where median voter theory predicts the demand for redistribution from the rich to the poor – what Glaeser, Scheinkman, & Shleifer call “Robin Hood Redistribution,” – we often observe the opposite – “King John Redistribution” from the poor to the rich.³⁸ Once the rich invest in corrupting the political process, they don’t stop at defeating redistribution to the poor. “[T]he haves can redistribute from the have-nots by subverting legal, political and regulatory institutions to work in their favor. They can do so through political contributions, bribes, or just deployments of legal and political resources to get their way.”³⁹ Glaeser, Scheinkman & Schleifer argue that inequality thus leads to the corruption of institutions, particularly the judiciary, a point for which they provide two compelling examples

³⁷ See Jong-sung You & Sanjeev Khagram, *A Comparative Study of Inequality and Corruption*, 70 AMER. SOC. REV. 136, 138 (2005).

³⁸ Glaeser, Scheinkman & Shleifer, *supra* note xx, at 200.

³⁹ *Id.*

– the Gilded Age in the United States and the former Soviet transition economies of the 1990s.⁴⁰

The empirical literature is relatively thin, but two non-economists, Jong-sung You and Sanjeev Khagram, recently completed a major study.⁴¹ Using two-stage least squares and various instrumental variables, they examine the relationship between income inequality and corruption in 129 countries. Controlling for economic development, trade openness, natural resource abundance, democracy, federalism, religion, origin of legal system, and ethno-linguistic fractionalization and using different measures of corruption, they find a statistically significant, robust, and powerful correlation. In simpler models without instrumental variables, they find that a “one-standard-deviation reduction in income inequality” (which is a decrease in the GINI measure of 0.11) is associated with between .21 and .30 standard deviation “improvement in corruption.”⁴² In more complex models using instrumental variables to test causation, their “best estimate of the causal effect that inequality has on corruption,” “a one-standard deviation reduction in inequality causes about a two third standard deviation improvement in freedom from corruption.”⁴³

Whereas there is little empirical work on the idea that inequality causes corruption, there is a significant amount of work that corruption causes inequality. (Indeed, You and Khagram test for and find causation in both directions⁴⁴). As a result, inequality can lead to corruption, which

⁴⁰ Id. at 211-14.

⁴¹ Jong-sung You & Sanjeev Khagram, *A Comparative Study of Inequality and Corruption*, 70 AMER. SOC. REV. 136 (2005).

⁴² Id. at 147.

⁴³ Id. at 149.

⁴⁴ You & Khagram, *supra* note xx, at 152-53.

causes more inequality, which causes more corruption. “As a result, many societies are likely to be trapped in vicious circles of inequality and corruption. This mutually reinforcing relationship possibly explains why income inequality persists within countries over time.”⁴⁵

III. INEQUALITY DECREASES GROWTH

As I noted at the outset, economics famously identifies the benefit of meritocratic inequality: that the promise of greater rewards elicits more socially productive effort and risk-taking. Moreover, according to some economic development theorists, inequality is desirable for ensuring that there is a wealthy class that has the resources to invest in capital. Against these causal mechanisms, however, economic theory identifies a number of ways that inequality (and particularly non-meritocratic inequality) can produce the opposite result of decreasing growth. The empirical surprise is that many studies find that the net effect of the inequality around the world is to decrease growth. If so, then *up to some point* decreasing inequality will increase social wealth. Contrary to the conventional assumption of a tradeoff between equity and efficiency, if inequality impedes growth (up to some point), then under almost any plausible social welfare function, decreasing inequality (up to some point) increases social welfare.

The conventional economic concern is that the threat of massive redistribution will undermine growth. For this reason, high levels of inequality can cause investors to feel uneasy about a nation’s future. One risk is that the have-nots will win the political struggle and impose confiscatory taxes, expropriation, or nationalization. Even if this redistribution never occurs, severe inequality poses the ever-present risk that it will. A second risk is that, even without redistribution, the political struggle between rich and poor will turn violent. Perhaps the rich will

⁴⁵ Id. at 153.

win the political struggle, but only at the cost of considerable disorder. Both risks – massive redistribution and violent political turmoil – lower the expected return on investment and therefore makes investment less likely, which makes growth less likely. Indeed, there is empirical evidence that income inequality increases social conflict and instability as measured by protests, strikes, government turnover, political violence, coups, and revolutions.⁴⁶ Depending on the degree of inequality, modest redistribution may produce gains from political stability and the reduced risk of confiscatory redistribution that more than compensate for any loss in optimal incentives the modest redistribution produces.

Related to the risk of redistribution is the corruption of institutions discussed in the prior section, which the World Bank recently recognized as one of the key mechanisms by which inequality impedes growth.⁴⁷ In a democracy, the rich block massive redistribution by using their wealth to gain control of key institutions, such as the courts. But if the wealthy corrupt the courts and other institutions, they will not stop at using them merely to block redistribution to the poor. Instead, the wealthy will buy political influence to redistribute wealth *away* from the poor to themselves, to shield themselves from market competition, and, in general, to entrench their

⁴⁶ Alberto Alesina, Sule Ozler, Nouriel Roubini & Phillip Swagel, *Political Instability and Economic Growth*, 1 J. ECON. GROWTH 189 (1996); Roland Benabou, “Inequality and Growth,” 11 NBER Macroeconomics Annual 11 (1996); Roberto Perotti, *Growth, Income Distribution, and Democracy: What the Data Say*, 1 J. ECON. GROWTH 149 (1996).

⁴⁷ See 2006 WORLD DEVELOPMENT REPORT, Overview 8-9 (World Bank 2005): “The second channel through which inequity affects long-run processes of development is the shaping of economic and political institutions. . . . [U]nequal power leads to the formation of institutions that perpetuate inequalities in power, status, and wealth—and that typically are also bad for the investment, innovation, and risk-taking that underpin long-term growth.” See also *id.* at chapter 6.

position of power.⁴⁸ If so, then corruption attenuates any link between merit and wealth. Wealth becomes less and less a function of socially productive effort or risk-taking and more simply a function of political influence. Entrenchment may not only take the form of blocking policies to redistribute to the poor or middle class, but also to block technological changes that could have a similar effect. When technical innovation threatens to disrupt the status quo in unpredictable ways or in ways that will predictably disperse power, elites will corrupt institutions to suppress the innovation. Economists Daron Acemoglu and James Robinson use this idea to explain, among other things, the Russian aristocratic opposition to industrialization.⁴⁹

Corruption has other negative effects. Undermining the rule of law will chill investment by the non-rich. Glaeser, Scheinkman, & Shleifer point out that, if the wealthy corrupt the judiciary, then they will “expect to prevail in any court case brought against them.”⁵⁰ If so, “they would not respect the property rights of others,” or one might add, the contract rights. “The breakdown in property rights in turn deters investment, at least by the potential victims, with adverse consequences for economic growth.”⁵¹ Finally, inequality distorts lobbying. Economists view lobbying as providing imperfectly informed government officials with potentially useful information about the costs and benefits of proposed regulation. Talk is cheap, but the actual

⁴⁸ Inequality may also retard democratic developments, which may in the long run produce greater growth. See, e.g., Francois & Thierry Verdier, *Oligarchy, Democracy, Inequality and Growth*, 62 J. DEVELOPMENTAL ECON. 285 (2000); Daron Acemoglu, *The Form of Property Rights: Oligarchic vs. Democratic Societies* (Nat’l Bureau of Econ. Research Working Paper No. 10037-2005).

⁴⁹ Daron Acemoglu and James A. Robinson “Economic Backwardness in Political Perspective” (2002).

⁵⁰ See Glaeser, Scheinkman, & Shleifer, *supra* note xx, at 201.

⁵¹ Id. Glaeser, Scheinkman & Schleifer appear to include contract enforcement in their analysis. If the wealthy control the courts, then they will find it difficult to make their promises to the non-rich appear to be binding, which undermines the productivity of promises for future exchange.

costs of lobbying can signal genuine information about what the lobbying organization expects from the regulation. Economists Joan Esteban and Debraj Ray recently observed, however, that inequality distorts this informational signal because wealthy firms or groups will be willing to outspend opponents simply because of their relative wealth.⁵² The result is a greater public misallocation of resources even when government is not corrupt.

Besides redistribution and corruption, inequality may also undermine growth by its affect on education and human capital, which the World Bank recognizes as another key mechanism by which inequality impedes growth.⁵³ The point here is that people have widely different types and levels of talent and an economy maximizes its growth by giving people the education or training that best exploits their talent. Put differently, given scarce educational resources, efficiency involves matching the right type and level of those resources to the individual. We may trust that individuals with sufficient resources have the incentive to educate themselves up to the level that maximizes their return (net of education costs). The problem is that the talented poor may lack the resources to educate themselves efficiently. If capital markets were perfect, then poverty would pose no obstacle to the ideal allocation of educational resources because talented but poor individuals would be able to borrow sufficiently to invest in their human capital, i.e., to get whatever education or training would maximize their net earnings. But because capital markets are imperfect, the poor will not be able to borrow up to the efficient amount and will under-invest

⁵² See Joan Esteban & Debraj Ray, *Inequality, Lobbying, and Resource Allocation*, 96 AMER. ECON. REV. 257 (2006).

⁵³ See 2006 WORLD DEVELOPMENT REPORT, Overview 7-8 and Chapter 5 (World Bank 2005).

in their training and education. The result is to waste human talent.⁵⁴ Aside from imperfections in capital markets, the rich may seek to entrench their power by directing a disproportionate share of public resources to the education of their own children.⁵⁵

Now I have stated the main three reasons economists give to believe that inequality works against growth (fear of redistribution, corruption of institutions, waste of human capital). There are however at least two more possibilities. A less orthodox mechanism is envy. Although economics usually focuses on absolute desires, some economists have observed that individuals care greatly about their relative desires, i.e., about their position relative to some referent group or individual.⁵⁶ Thus, holding absolute wealth constant, individuals seem to gain utility from being relatively wealthier than others and to lose utility from being relatively poorer than others. Obviously, the satisfaction or frustration of these relative preferences has a direct affect on individual and hence social welfare. But there are also possible indirect effects. For example, the negative feeling those with less have for those with more – envy – might impede economic productivity. Although having less than others may create a greater to perform, it may also lead to frustration, resignation, and hostility, all of which may cause individuals to behave in less

⁵⁴ See Perotti, *supra* note xx; Oded Galor & Joseph Zeira, *Income Distribution and Macroeconomics*, 60 REV. ECON. STUDIES 35 (1993).

⁵⁵ See Era Dabla-Norris & Mark Gradstein, *The Distributional Bias of Public Education: Causes and Consequences*, IMF Working Paper 214 (2004); Abhijit V. Banerjee & Lakshmi Iyer, *History, Institutions and Economic Performance: The Legacy of Colonial Land Tenure Systems in India*, 95 AMER. ECON. REV. 1190 (2005). “Assortative matching” in marriage also compounds the problem. See, e.g., Raquel Fernandez & Richard Rogerson, *Sorting and Long-Run Inequality*, 116 QUART. J. ECON. 1305 (2001).

⁵⁶ For a review, see Richard H. McAdams, *Relative Preferences*, 102 YALE L.J. 1 (1992). For more recent research, see, e.g., F. Alpizar, F. Carlsson & O. Johansson-Stenman, *How Much Do We Care About Absolute Versus Relative Income and Consumption?* 56 J. ECON. BEHAVIOR & ORG. 405 (2005); G. Kirchsteiger, *The Role of Envy in Ultimatum Games*, 25 J. ECON. BEHAVIOR & ORG. 373 (1994); O. Johansson-Stenman, F. Carlsson & D. Daruvala, *Measuring Future Grandparents’ Preferences for Equality and Relative Standing*, 112 ECON. J. 362 (2005).

productive ways. Only empirical analysis can resolve which effect is likely to predominate.

Three economists, Benno Torgler, Sascha L. Schmidt and Bruno S. Frey, recently studied this issue at the micro level, asking whether inequality among co-workers affected their productivity.⁵⁷ Like other recent studies of worker productivity, they focused on sports, where the data permits clear measurement of pay and productivity. Specifically, they examined the pay and performance of 1040 professional soccer players in Germany's premier soccer league *Bundesliga*, over eight seasons. Although the absolute level of pay increases performance, controlling for a variety of factors, they find that inequality of pay on a team "has a strong *negative* impact for all types of performance" by its players – goals, assists, shots, ball contacts, duels and duels won.⁵⁸ Moreover, the negative effect on an individual is much larger the longer that individual plays on a given team.⁵⁹ Newcomers are less effected, which suggests that the key is the referent group – the longer an individual plays on a team, the more likely he is to use teammates as a referent group, and the more that the large differences in pay adversely affect his performance. In short, inequality increases envy, which decreases group performance.

Related to this micro-level finding is a similar society-wide claim by Harvard economist Benjamin Friedman. In a recent book, Friedman analyzes the relationship between economic growth and political tolerance.⁶⁰ Friedman defends the importance of growth by claiming that it tends to foster pluralism, tolerance of diversity and dissent, and commitment to democracy.

⁵⁷ Benno Torgler, Sascha L. Schmidt & Bruno S. Frey, "Relative Income Position and Performance: An Empirical Panel Analysis," The Fondazione Eni Enrico Mattei Note di Lavoro Series Index (Feb. 2006).

⁵⁸ Id. at 15.

⁵⁹ Id. at 24-25.

⁶⁰ BENJAMIN M. FRIEDMAN, *THE MORAL CONSEQUENCES OF ECONOMIC GROWTH* (2005).

Though nations do not inevitably become democratic or tolerant merely because they achieve economic prosperity, those that remain absolutely poor virtually never become tolerant or democratic. Friedman's explains the causal connection as a matter of an individual's comparison to a reference group. When a person is making more money each year, he tends to use his own past as his basis for comparison and feels optimistic and positive about other groups. But when an individual's wages are stagnant, he is more likely to compare himself to others and to worry or believe that others are gaining at his expense. He is then more likely to support public policies aimed at harming the individuals he blames, such as policies that suppress immigration, minority racial or religious groups, or political dissent. The point here is analogous to the above discussion: just as a political struggle between the rich and the poor is bad for the economy; so may be every sort of intense political struggle, including between competing factions of non-rich.⁶¹

Friedman focuses on growth not inequality, but relevant to the current discussion, Friedman says that the tolerance effect he describes occurs *only for individuals who personally benefit from economic growth*. Whatever the state of the nation's economy, if the individual's wages do not grow, then he will remain envious and intolerant of others. Thus, Friedman links his thesis about the moral consequences of growth to "a rising standard of living for the clear majority of citizens." "Economic progress needs to be broadly based if it is to foster social and

⁶¹ Friedman does not draw the connection – perhaps it would sound too Marxist – but one might imagine that the factionalization he discusses is partly connected to the redistributive struggle between rich and poor in that the rich may seek to defend against the political wrath of the non-rich by encouraging political divisions and conflict among the non-rich.

political progress.”⁶²

As a final causal mechanism, recall the point of a prior section that inequality increases crime. In turn, crime also diminishes economic productivity. Crime prompts potential victims to invest in defensive measures. Some of those measures are themselves inefficient in that they only displace crime to other victims without decreasing the level of crime. “The club” is an example if car thieves can easily see the device and move on to the next car. But even if the defensive measure decreases the level of crime, it also increases the costs of producing goods. If increased risk of crime cause manufacturers and retailers to devote more resources to preventing theft of their goods (by buying locks, alarms, cameras, security guards, etc.), then the same quantity of goods effectively costs more to supply to consumers. If consumers must invest more heavily in defensive measures to protect their goods from theft, then the preference-satisfaction those goods supply now costs more. According to some economists, there is the possibility here of a “poverty trap” in which poverty causes crime, which impedes economic growth, which preserves poverty and high crime rates. “Economic stagnation explains rising crime and rising crime, in turn, explains the economic stagnation.”⁶³

Those are the theories. The empirical evidence on the connection between inequality and growth is large and growing. One of the early studies is Persson and Tabellini.⁶⁴ They first

⁶² Id. at 6. See also Justina A.V. Fischer & Benno Torgler, “Does Envy Destroy Social Fundamentals? The Impact of Relative Income Position on Social Capital,” University of St. Gallen Dept. of Econ. Discussion Paper No. 2006-04 (January 2006).

⁶³ Halvor Mehlum, Karl Ove Moene, & Ragnar Torvik, *Crime Induced Poverty Traps*, 77 J. DEVELOPMENT ECON. 325 (2005).

⁶⁴ See Torsten Persson & Guido Tabellini, *Is Inequality Harmful for Growth?*, 84 AMER. ECON. REV. 600 (1994).

conducted a time series analysis of nine nations over 155 years and followed up with a regression of growth and inequality in 56 nations since World War II. In each case, they found a statistically and economically significant connection: a one standard deviation increase in the income share of the top 20 percent *lowers* the average annual growth rate by approximately half a percentage point.⁶⁵ A number of other studies from the 1990s support this finding.⁶⁶ In 1999, economists reviewing this and other studies concluded that “the traditional argument that redistribution is detrimental to incentives and growth is strongly challenged.”⁶⁷

Other studies reached different results. Economist Robert Barro examined panel data for approximately 100 countries over 35 years and found no overall relationship between inequality and growth.⁶⁸ When he divided the countries into rich and poor, he found that inequality appeared to produce less growth in poor countries but more growth in wealthy countries.

Economist Kristin Forbes also examined panel data and found an overall positive effect of inequality on growth.⁶⁹ Using expanded data on 45 countries over 30 years, she found that “[a] ten-point increase in a country’s gini coefficient is correlated with a 1.3 percent increase in average annual growth over the next five years.”⁷⁰ Glaeser, Scheinkman, and Shleifer ran a cross

⁶⁵ Id. at 607-08, 612.

⁶⁶ See Alberto Alesina & Dani Rodrik, *Distributive Politics and Economic Growth*, 109 QUART. J. ECON. 465 (1994); Roland Benabou, “Inequality and Growth,” 11 NBER Macroeconomics Annual 11 (1996); George Clarke, *More Evidence on Income Distribution and Growth*, 47 J. DEVELOPMENT ECON. 403 (1995).

⁶⁷ Philippe Aghion, Eve Caroli & Cecilia Garcia-Penalosa, *Inequality and Economic Growth: The Perspective of the New Growth Theories*, 37 J. ECON. LIT. 1615 (1999).

⁶⁸ Robert J. Barro, *Inequality and Growth in a Panel of Countries*, 5 J. ECON. GROWTH 5 (2000).

⁶⁹ Kristin Forbes, *A Reassessment of the Relationship Between Inequality and Growth*, 90 AMER. ECON. REV. 869 (2000).

⁷⁰ Id. at 878.

country comparison that controlled for the strength of each nation's "rule of law" and found that inequality decreased growth only in countries with below mean rule of law measures, while inequality had no effect in nations with strong rule of law.⁷¹ They took this as evidence of their particular theory that inequality decreases growth by corrupting institutions; when the institutions are sufficiently strong, inequality has no effect on growth.

In any event, the World Bank considered these studies and concluded in late 2005 that material inequality (and other forms of inequity such as discrimination and stereotyping) were a major obstacle to the economic development of poor nations: "The main message is that equity is complementary, in some fundamental respects, to the pursuit of long-term prosperity. Institutions and policies that promote a level playing field . . . contribute to sustainable growth and development."⁷²

I end this section with a study by economist William Easterly, also from late 2005.⁷³ Easterly notes that the weaknesses in all of these studies: the imperfect data on inequality over time and across nations.⁷⁴ He then proposes an "instrumental" technique to avoid that weakness. Economic historians have identified "factor endowment" as a key cause of inequality within nations.⁷⁵ A central example of which is the difference between sugar cane and wheat farming. Sugar cane farming has economies of scale that lead to very large plantations (often with slave

⁷¹ See Glaeser, Scheinkman, & Shleifer, *supra* note xx, at 214-15.

⁷² See WORLD DEVELOPMENT REPORT, *supra* note xx, Overview at 2.

⁷³ See William Easterly, "Inequality Does Cause Underdevelopment" (Dec. 2005).

⁷⁴ *Id.* at 7.

⁷⁵ See, e.g., Stanley L. Engerman & Kenneth L. Sokoloff, *The Evolution of Suffrage Institutions in the New World*, 65 J. ECON. HISTORY 891 (2005); Kenneth L. Sokoloff & Stanley L. Engerman, *Institutions, Factor Endowments, and Paths of Development in the New World*, 14 J. ECON. PERSP. 217 (2000).

labor) that “were historically associated with high inequality.”⁷⁶ Wheat farming, by contrast, could be achieved on family farms “and thus promoted the growth of a large middle class.”⁷⁷ In case studies, economic historians find that simple agricultural differences of this type explain significance differences in material equality and the evolution of political institutions.⁷⁸ If so, then the ratio of sugar to wheat in a nation is a useful “instrument” for measuring equality there. The instrument is useful first because there is good data on crops grown across different nations over time. The instrument is also useful because, according to the economic theory of comparative advantage, the crops grown should have no *direct* effect on long term growth. Thus, any effect the ratio has can be attributed to the effect in producing inequality, which then affects long term growth.

Easterly finds that the crop ratio strongly predict growth: the heavier farming of sugar cane is a “large and significantly significant hindrance” to growth.⁷⁹ The effect remains when Easterly controls for ethnic fractionalization, legal origins, and tropical location.⁸⁰ In addition, he finds evidence for the mechanisms by which inequality operates: the higher farming of sugar cane leads to significant reductions in institutional quality and schooling.⁸¹

In sum, the empirical debate continues, but there is strong reason to think that, at least in many nations of the world, inequality impedes economic growth. At some levels of inequality,

⁷⁶ Easterly, *supra* note xx, at 2.

⁷⁷ *Id.* at 3.

⁷⁸ See, e.g., Engerman & Sokoloff, *Paths of Development*, *supra* note xx;

⁷⁹ See Easterly, *supra* note xx, at 25.

⁸⁰ *Id.* at 19-21.

⁸¹ *Id.* at 14-15.

there is not a trade-off between efficiency and equity. Instead, policies that reduce inequality may produce greater growth as well as greater equity.

IV. CONCLUSION

To be sure, nothing in the economic theory or empiricism I have reviewed suggests that economists wish to rethink the benefits of free markets, which essentially require inequality. The expectation of inequality creates incentives for productive behavior; given that people do take different levels of risk and put forth different levels of effort, the expectation of inequality depends in turn on the reality of inequality. Nonetheless, like everything else in economics, there is some optimal degree of inequality. The concept of wealth maximization in law and economics might seem to suggest that the optimal degree is whatever amount any free market produces, i.e., that one should simply ignore the distributional consequences of maximizing total wealth. That implication is false simply as a matter of welfare economics, which is appropriately concerned about any effects – including distribution – on human welfare. Here, I have identified only a few of those distributional effects. Economic theory and empiricism suggests that material inequality increases crime, increases corruption, and, at some levels, decreases growth. Inequality has costs as well as benefits. For economics, the optimal level of inequality likely to be less than the market supplies.

Readers with comments should address them to:

Professor Richard McAdams
University of Chicago Law School
1111 East 60th Street
Chicago, IL 60637
rmcadams@uchicago.edu

Chicago Working Papers in Law and Economics
(Second Series)

For a listing of papers 1–299 please go to Working Papers at
<http://www.law.uchicago.edu/Lawecon/index.html>

300. Adam B. Cox, The Temporal Dimension of Voting Rights (July 2006)
301. Adam B. Cox, Designing Redistricting Institutions (July 2006)
302. Cass R. Sunstein, Montreal vs. Kyoto: A Tale of Two Protocols (August 2006)
303. Kenneth W. Dam, Legal Institutions, Legal Origins, and Governance (August 2006)
304. Anup Malani and Eric A. Posner, The Case for For-Profit Charities (September 2006)
305. Douglas Lichtman, Irreparable Benefits (September 2006)
306. M. Todd Henderson, Paying CEOs in Bankruptcy: Executive Compensation when Agency Costs Are Low (September 2006)
307. Michael Abramowicz and M. Todd Henderson, Prediction Markets for Corporate Governance (September 2006)
308. Randal C. Picker, Who Should Regulate Entry into IPTV and Municipal Wireless? (September 2006)
309. Eric A. Posner and Adrian Vermeule, The Credible Executive (September 2006)
310. David Gilo and Ariel Porat, The Unconventional Uses of Transaction Costs (October 2006)
311. Randal C. Picker, Review of Hovenkamp, The Antitrust Enterprise: Principle and Execution (October 2006)
312. Dennis W. Carlton and Randal C. Picker, Antitrust and Regulation (October 2006)
313. Robert Cooter and Ariel Porat, Liability Externalities and Mandatory Choices: Should Doctors Pay Less? (November 2006)
314. Adam B. Cox and Eric A. Posner, The Second-Order Structure of Immigration Law (November 2006)
315. Lior J. Strahilevitz, Wealth without Markets? (November 2006)
316. Ariel Porat, Offsetting Risks (November 2006)
317. Bernard E. Harcourt and Jens Ludwig, Reefer Madness: Broken Windows Policing and Misdemeanor Marijuana Arrests in New York City, 1989–2000 (December 2006)
318. Bernard E. Harcourt, Embracing Chance: Post-Modern Meditations on Punishment (December 2006)
319. Cass R. Sunstein, Second-Order Perfectionism (December 2006)
320. William M. Landes and Richard A. Posner, The Economics of Presidential Pardons and Commutations (January 2007)
321. Cass R. Sunstein, Deliberating Groups versus Prediction Markets (or Hayek’s Challenge to Habermas) (January 2007)
322. Cass R. Sunstein, Completely Theorized Agreements in Constitutional Law (January 2007)
323. Albert H. Choi and Eric A. Posner, A Critique of the Odious Debt Doctrine (January 2007)
324. Wayne Hsiung and Cass R. Sunstein, Climate Change and Animals (January 2007)
325. Cass R. Sunstein, Cost-Benefit Analysis without Analyzing Costs or Benefits: Reasonable Accommodation, Balancing and Stigmatic Harms (January 2007)
326. Cass R. Sunstein, Willingness to Pay versus Welfare (January 2007)
327. David A. Weisbach, The Irreducible Complexity of Firm-Level Income Taxes: Theory and Doctrine in the Corporate Tax (January 2007)
328. Randal C. Picker, Of Pirates and Puffy Shirts: A Comments on “The Piracy Paradox: Innovation and Intellectual Property in Fashion Design” (January 2007)
329. Eric A. Posner, Climate Change and International Human Rights Litigation: A Critical Appraisal (January 2007)
330. Randal C. Picker, Pulling a Rabbi Out of His Hat: The Bankruptcy Magic of Dick Posner (February 2007)
331. Bernard E. Harcourt, Judge Richard Posner on Civil Liberties: Pragmatic (Libertarian) Authoritarian (February 2007)

332. Cass R. Sunstein, If People Would Be Outraged by Their Rulings, Should Judges Care? (February 2007)
333. Eugene Kontorovich, What Standing Is Good For (March 2007)
334. Eugene Kontorovich, Inefficient Customs in International Law (March 2007)
335. Bernard E. Harcourt, From the Asylum to the Prison: Rethinking the Incarceration Revolution. Part II: State Level Analysis (March 2007)
336. Cass R. Sunstein, Due Process Traditionalism (March 2007)
337. Adam B. Cox and Thomas J. Miles, Judging the Voting Rights Act (March 2007)
338. M. Todd Henderson, Deconstructing Duff & Phelps (March 2007)
339. Douglas G. Baird and Robert K. Rasmussen, The Prime Directive (April 2007)
340. Cass R. Sunstein, Illusory Losses (May 2007)
341. Anup Malani, Valuing Laws as Local Amenities (June 2007)
342. David A. Weisbach, What Does Happiness Research Tell Us about Taxation? (June 2007)
343. David S. Abrams and Chris Rohlf, Optimal Bail and the Value of Freedom: Evidence from the Philadelphia Bail Experiment (June 2007)
344. Christopher R. Berry and Jacob E. Gersen, The Fiscal Consequences of Electoral Institutions (June 2007)
345. Matthew Adler and Eric A. Posners, Happiness Research and Cost-Benefit Analysis (July 2007)
346. Daniel Kahneman and Cass R. Sunstein, Indignation: Psychology, Politics, Law (July 2007)
347. Jacob E. Gersen and Eric A. Posner, Timing Rules and Legal Institutions (July 2007)
348. Eric A. Posner and Adrian Vermeule, Constitutional Showdowns (July 2007)
349. Lior Jacob Strahilevitz, Privacy versus Antidiscrimination (July 2007)
350. Bernard E. Harcourt, A Reader's Companion to Against Prediction: A Reply to Ariela Gross, Yoram Margalioth, and Yoav Sapir on Economic Modeling, Selective Incapacitation, Governmentality, and Race (July 2007)
351. Lior Jacob Strahilevitz, "Don't Try This at Home": Posner as Political Economist (July 2007)
352. Cass R. Sunstein, The Complex Climate Change Incentives of China and the United States (August 2007)
353. David S. Abrams and Marianne Bertrand, Do Judges Vary in Their Treatment of Race? (August 2007)
354. Eric A. Posner and Cass R. Sunstein, Climate Change Justice (August 2007)
355. David A. Weisbach, A Welfarist Approach to Disabilities (August 2007)
356. David S. Abrams, More Time, Less Crime? Estimating the Deterrent Effect of Incarceration using Sentencing Enhancements (August 2007)
357. Stephen J. Choi, G. Mitu Gulati and Eric A. Posner, Professionals or Politicians: The Uncertain Empirical Case for an Elected Rather than Appointed Judiciary (August 2007)
358. Joseph Bankman and David A. Weisbach, Consumption Taxation Is Still Superior to Income Taxation (September 2007)
359. Douglas G. Baird and M. Todd Henderson, Other People's Money (September 2007)
360. William Meadow and Cass R. Sunstein, Causation in Tort: General Populations vs. Individual Cases (September 2007)
361. Richard McAdams and Janice Nadler, Coordinating in the Shadow of the Law: Two Contextualized Tests of the Focal Point Theory of Legal Compliance (September 2007)
362. Richard McAdams, Reforming Entrapment Doctrine in *United States v. Hollingsworth* (September 2007)
363. M. Todd Henderson, From *Seriatim* to Consensus and Back Again: A Theory of Dissent (October 2007)
364. Timur Kuran and Cass R. Sunstein, Availability Cascades and Risk Regulation (October 2007)
365. David A. Weisbach, The Taxation of Carried Interests in Private Equity (October 2007)
366. Lee Anne Fennell, Homeownership 2.0 (October 2007)
367. Jonathan R. Nash and Rafael I. Pardo, An Empirical Investigation into Appellate Structure and the Perceived Quality of Appellate Review (October 2007)
368. Thomas J. Miles and Cass R. Sunstein, The Real World of Arbitrariness Review (November 2007)
369. Anup Malani, Maciej F. Boni, Abraham Wickelgren, and Ramanan Laxminarayan, Controlling Avian Influenza in Chickens (November 2007)
370. Richard H. McAdams, Economic Costs of Inequality (November 2007)