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MIGRATION AND VIOLENT CRIME: LESSONS FROM THE RUSSIAN EXPERIENCE

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Abstract

The relationship between migration, both internal and international, and crime is not a matter of merely academic interest. Many laws and public policies directly and profoundly affect migration within and across national borders. At a time when international migration is attracting increasing attention of policy makers, courts, and legislators, there is a real need to better understand and predict the public-order consequences of laws affecting population movements. This article exploits the Russian experience to further that aim.

The relationship between population movements and crime has been the subject of a growing social science literature. That literature yields but one clear conclusion: that the relationship defies generalization. In some contexts, a concentration of newcomers (whether native or foreign) in communities correlate with higher, and in other contexts, with lower, violent crime rates across space. Some population movements appear to improve, and others to erode, the social capacity for informal control over crime. In this article, I marshal evidence for one promising explanation for the disparate consequences of different population movements, emphasizing the role of social ties and networks. That explanation suggests that where migrations destroy social networks among the migrants or in receiving communities, the social capacity for informal control over violent behaviors is undermined, and public order is liable to suffer. By contrast, where social networks drive migrations and are preserved or reconstituted in areas of settlement, no comparable disruptive effects ensue. Russia's experience under Soviet rule furnishes a singularly fitting example of population movements that definitively disrupted preexisting social structures and

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obstructed formation of new ones. I make use of statistical analysis to demonstrate that the Russian post-communist geography of homicide was shaped profoundly by communist-era migration and settlement patterns. In this way, it offers evidence for the proposition that network-disrupting migrations are strongly associated with higher violent crime rates, and that state laws and policies that produce these sorts of movements come at a high social cost. The idiosyncratic character of Russia's migration history makes it an empirically convenient case – the proverbial “natural experiment” – to explore the full effects of specifically network-disrupting population movements. Its idiosyncrasy notwithstanding, the Russian experience yields generalizable implications for our understanding of the migration-crime relationship, and our ability to identify those policies that are most likely to disrupt the social processes of informal control and contribute to violent crime.

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INTRODUCTION

“[T]he history of crime and punishment” in the United States, writes William Stuntz, cannot be adequately understood without considering the story of “[t]wo migrations” – the arrival of European immigrants in the late nineteenth and early twentieth centuries, and the Great Migration of African Americans in the twentieth century.¹ Migration shapes the laws of punishment because it influences patterns of crime, and, perhaps more significantly, because it is *perceived* to influence crime. Popular perceptions about the relationship between migration and crime – especially about international migration – often have little basis in reality. That there is a relationship between population movements and public order is a proposition supported by mounting empirical research. The nature of that relationship, however, is complex and defies generalization. This article seeks to contribute to our understanding of that relationship by drawing attention to the experience of Russia, another country whose history of crime cannot be understood without considering the story of its migrations.

How do population movements affect crime rates? One way that migration is thought to influence crime is by shaping the collective capacity for informal social control.² The importance of *informal* social control over crime in general is acknowledged even by legal scholars, whose subject might naturally incline them towards legal centralism.³ In a classic work on American cities, Jane Jacobs articulates the paramount role of informal social control in maintain public order: “the public peace,” she writes, “is not kept primarily by the police,” but by “an intricate, almost unconscious, network of voluntary controls and standards among the people themselves, and enforced by the people themselves. ... No amount of police can enforce

¹ WILLIAM J. STUNTZ, *THE COLLAPSE OF AMERICAN CRIMINAL JUSTICE* 13 (2011); *see also* Ted Robert Gurr, *The History of Violent Crime in America: An Overview*, in *VIOLENCE IN AMERICA* 16 (Ted Robert Gurr ed., 1989).

² *See infra* Part I.A.

³ *See, e.g.*, Tracey L. Meares, Neal Katyal & Dan M. Kanan, *Updating the Study of Punishment*, 56 *STAN. L. REV.* 1171, 1186-93 (2004) (noting the limited capacity of formal punishment to control crime and emphasizing the importance of informal social control and community context); Robert C. Ellickson, *Law and Economics Discovers Social Norms*, 27 *J. LEGAL STUD.* 537, 540 (1998) (noting the need to recognize that “[m]uch of the glue of a society comes not from law enforcement,” as legal centralism presumes, “but rather from the informal enforcement of social mores by acquaintances, bystanders, trading partners, and others.”).

civilization where the normal, casual enforcement of it has broken down.”⁴ It is intuitively plausible that changes “in the number and composition” of communities, produced by both intra- and international migration, “affect social networks” and influence those normal processes of informal social control, thereby affecting crime rates.⁵

The direction of that influence, however, is not uniform. A well-developed body of research, for example, shows that high residential turnover across some of America’s urban communities has been historically associated with higher crime rates.⁶ On the other hand, other population movements, such as the recent immigration into the United States, are associated with lower crime rates.⁷ The mounting evidence for the latter in particular, demonstrates that the blanket rhetorical claims often made about the immigration-crime relationship are unfounded.⁸ The most that can be said is that certain kinds of population movements appear to undermine, while others appear to augment, the social capacity for peaceful self-regulation.

Why this should be the case is a complex and underexplored question. Attempts to answer that question are important for numerous questions of legal and public policy. Many laws directly and profoundly affect mobility and migration within and across national borders. This includes not only immigration laws, but also criminal laws⁹ – as well as housing law, employment law, and family law, as two legal scholars have recently argued.¹⁰ The effects on the social fabric of migration patterns

⁴ JANE JACOBS, *THE DEATH AND LIFE OF AMERICAN CITIES* 31-32 (1961).

⁵ David S. Kirk & John H. Laub, *Neighborhood Change and Crime in the Modern Metropolis*, 39 *CRIME & JUSTICE* 441, 443 (2010).

⁶ See *infra* Part I.A.

⁷ See *infra* Part I.B.

⁸ See, e.g., Stephen H. Legomsky, *The New Path of Immigration Law: Asymmetric Incorporation of Criminal Justice Norms*, 64 *WASH. & LEE L. REV.* 469, 507 (2007) (describing the common perception that immigration causes crime and citing studies demonstrating a lack of such a link). “Findings” of a link between illegal immigration and crime have also appeared in proposed and adopted local legislation: e.g., HAZLETON, PA., Ordinance 2006-18 § 2 (Sept. 21, 2006) (“find[ing] and declar[ing]” that “[i]llegal immigration leads to higher crime rates”); California’s Proposition 187, passed with 59 percent of the statewide vote in 1994 (overturned by a federal court) (claiming “The people of California . . . have suffered and are suffering economic hardship caused by the presence of illegal aliens in this state. . . . [T]hey have suffered and are suffering personal injury and damage caused by the criminal conduct of illegal aliens in this state.”).

⁹ See *infra* text accompanying notes 33-34.

¹⁰ Robert C. Ellickson, *Legal Constraints on Household Moves: Should Footloose Americans Envy the Rooted French?* (unpublished manuscript) (available at <http://www.nd.edu/~ndlaw/conferences/lawecon/Ellickson.pdf>) (arguing that taxation, landlord-tenant, and housing assistance policies play a large role in determining mobility rates); Naomi Schoenbaum, *Mobility Measures*, *BYU L. REV.* (forthcoming 2012)

created by such laws are not well understood – and the likely effects on the social capacity for control over anti-social, criminal behaviors are often not taken into account at all. At the same time, the consequences of population movements for public order should have a special salience for the United States, a country with comparatively high stocks and shares of immigrants, high rates of internal mobility – and famously high violent crime rates compared to nations at comparable level of development.¹¹ Indeed, a leading historian of violence in America opined, at the end of a lifetime devoted to the study of the subject, that historically and persistently high rates of mobility are a key factor explaining America’s comparatively high violent crime rates. “[C]ommunities in the United States in the nineteenth and early twentieth centuries had very high rates of population turnover, or ‘churning,’” he points out, and “[t]he implications of this turnover have never been fully explored, but at minimum it must have been the case that informal social control ... w[as] enfeebled.”¹² Legal scholarship and policy-makers alike would benefit from a greater engagement with the rich body of social science research that addresses the relationship between population movements and crime.

This article exploits the experience of Soviet and post-Soviet Russia, a country whose history makes it an especially fitting case both to probe and to extend insights gleaned from the research on migration and violent crime.¹³ Russia’s history affords a unique opportunity to explore the

(manuscript at 4) (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1946853) (arguing that family and employment laws play a large role in determining the costs of mobility).

¹¹ The United States has the largest stock of foreign-born in its population, though not the highest share. See *International Migration 2006*, UNITED NATIONS, DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS, POPULATION DIVISION, http://www.un.org/esa/population/publications/2006Migration_Chart/2006IttMig_chart.htm (last visited Feb. 18, 2012). With regard to internal mobility of the population, the mobility rates in the US exceed those in most developed countries in the second half of the 20th century. See Quentin David et al., *Local Social Capital and Geographical Mobility 2* (Sept. 30, 2009), at <http://ideas.repec.org/p/luc/wpaper/09-11.html>. With regard to violent crime, the American exceptionalism relative to other countries at similar levels of development is widely remarked upon. See, e.g., Eric Monkkonen, *Homicide: Explaining America’s Exceptionalism*, 111 AM. HIST. REV. 76 (2006); UNITED NATIONS OFFICE ON DRUGS AND CRIME, *2011 Global Study on Homicide: Trends, Context, Data 24* (2011) (available at http://www.unodc.org/documents/data-and-analysis/statistics/Homicide/Globa_study_on_homicide_2011_web.pdf).

¹² Monkkonen, *supra* note 11, at 90.

¹³ This article focuses on lethal criminal violence (i.e. homicide), rather than other categories of crime. Homicides are widely deemed to offer the most comparable crime rate indicator in cross-sectional studies as well as a reliable indicator of overall levels of criminal violence. See Gregory J. Howard et al., *Theory, Method, and Data in Comparative Criminology*, in 4 CRIMINAL JUSTICE 2000, MEASUREMENT AND ANALYSIS OF CRIME AND JUSTICE 139, 159-160 (D. Duffee ed., 2000). This advantage is magnified by

plausibility of one theory offered to distinguish migrations that undermine the social capacity for informal control and those that do not – by emphasizing the role of social ties and networks. In short, where social ties and networks are destroyed by population movements, social dislocation would undermine informal control over violent, anti-social behaviors; by contrast, where social networks drive migrations and are preserved or reconstituted, no comparable disruptive effects ensue.¹⁴

For decades, Soviet leaders tried to control the movements and settlement patterns of its population. Thus, the patterns of mobility and resettlement entailed widespread disruption of existing social ties and communities. The ramifications of Soviet-era migrations are unambiguously the ramifications of *network-disrupting* migrations. Soviet migration and settlement patterns, moreover, were more loosely correlated with other factors that often accompany mass migration elsewhere – such as economic disadvantage or ethno-racial discrimination, conditions which are likely to contribute to crime in their own right. These features of Soviet migration reduce the risk of conflating the consequences of deepening economic disadvantage or discrimination with the consequences of migration as such.

Since the collapse of the Soviet Union, the rates of lethal violent crime – while very high nation-wide – have varied greatly across Russia.¹⁵ Soviet-era efforts at controlling population movements and the social landscape these produced have much to do with the strikingly uneven burden of lethal violence across its territory. In the course of demonstrating this claim, this article emphasizes that the public-order consequences of migration must be understood as conditioned by the nature of migratory change and the context within which it occurs.

The idiosyncratic character of Russia's migration history makes it an empirically convenient case to explore the full effects of specifically network-disrupting population movements. Its idiosyncrasy notwithstanding, the Russian experience yields generalizable implications for our understanding of the migration-crime relationship, and our ability to identify those policies that are most likely to disrupt the social processes of informal control and contribute to violent crime rates.

the possibility of measuring homicide rates with mortality statistics, rather than less reliable police records. See *infra* note 98. Furthermore, while it is possible to think of cohesive communities with robust informal norm enforcement, which nevertheless provide normative support for certain kinds of non-violent crimes, it is less common to encounter communities that have no interest in spreading and enforcing some norms aimed at limiting the use of lethal force.

¹⁴ See *infra* Part I.C.

¹⁵ See *infra* note 97.

The article proceeds as follows. Part I reviews the multi-disciplinary research on the connection between population movements, the capacity for informal control, and violent crime rates. Part II explains why Russia makes a fitting case for an investigation of the consequences of social-network disrupting population movements. In this part, a brief account of Soviet Russia's history of internal migration is offered to explain its state-driven, artificial, and social-network-disrupting character. It shows likewise that the burden of migratory change in the Soviet era is unevenly distributed across space. This spatial variation allows us to test the hypothesis that network-disrupting migrations undermined the social capacity for controlling violent crime: that is, those areas that experienced the most voluminous population movements throughout the Soviet era should be those least equipped to informally contain violent crime in the post-Soviet period. Part III presents statistical evidence for that hypothesis, revealing the lasting and significant consequences of population movements on post-Soviet regional homicide rates. Part IV concludes by drawing out some implications of the Russian case for understanding the public-order consequences of laws and policies that directly affect mobility and migration within and across national borders.

I. POPULATION MOVEMENTS AND (VIOLENT) CRIME

A. *Through the Lens of Social Disorganization Theory*

A large body of social science and socio-legal research addresses the relationship between population movements and crime.¹⁶ Perhaps the best-known theoretical approach that relates these demographic processes to variations in crime rates across space is social disorganization theory. In their seminal 1942 work, Chicago School scholars Shaw and McKay proposed that it was the disruption of "community social organization," rather than the aggregation of any individual characteristics of residents, that accounted for the striking differences in crime and delinquency rates

¹⁶ "Population movements" as used here captures both intra- and international resettlements. It includes both "migration" and "mobility," conventionally understood: migration usually refers to "a permanent or semi-permanent change in residence that involves movement ... across a meaningful administrative boundary," while population or residential mobility "refer[s] to a change of residence within a specified geographic area (e.g., metropolitan area or city)." Stewart E. Tolnay, *The African American "Great Migration" and Beyond*, 29 ANN. REV. SOCIOL. 209, 209 n.1 (2003). I will use "mobility," "migration," as well as "population movements" interchangeably throughout, unless expressly indicated otherwise.

across Chicago's neighborhoods.¹⁷ Social organization, they posited, may be measured by the prevalence, strength, and interdependence of formal and informal social networks. Communities that are socially disorganized – i.e., where social networks are weak and sparse and social cohesion is low – have fewer social resources to devote to common public problems, and thus, little capacity to support robust informal social controls over anti-social behaviors.¹⁸ Tracey Meares, who has often brought insights from sociology to the attention of legal scholars, offers a concise formulation of the core argument: “[n]orm enforcement is easier when individuals in a community have social linkages and trust one another. Individuals who reside in communities in which there are few social linkages and where distrust is rampant will have difficulty exerting social control over one another.”¹⁹ Subsequent sociological research, especially the works by Bursik and Grasmick, and Sampson and several collaborators, has built on Shaw and McKay's theoretical propositions.²⁰ A general conclusion bolstered by

¹⁷CLIFFORD SHAW & HENRY MCKAY, *JUVENILE DELINQUENCY AND URBAN AREAS: A STUDY OF RATES OF DELINQUENCY IN RELATION TO DIFFERENTIAL CHARACTERISTICS OF LOCAL COMMUNITIES IN AMERICAN CITIES* (1942).

¹⁸ “Informal social control” is commonly understood as the informal regulation of collective life by the transmission, spread, and enforcement of norms about appropriate and unacceptable behavior. See, e.g., Tracey Meares, *Norms, Legitimacy and Law Enforcement*, 79 OR. L. REV. 391, 395 (2000); Steven F. Messner & Richard Rosenfeld, *Social Structure and Homicide: Theory and Research*, in *HOMICIDE: A SOURCEBOOK OF SOCIAL RESEARCH* 27, 28 (M. Dwayne Smith & Margaret A. Zahn eds., 1999); see also ROBERT C. ELLICKSON, *ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES* 123-36 (1991). For examples of informal mechanisms of keeping public order, see Robert J. Sampson et al., *Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy*, 277 SCI. 918, 918 (1997).

¹⁹ Meares, *supra* note 18.

²⁰ Subsequent research bolstered Shaw and McKay's central theoretical claim that “internal dynamics of local communities and the capacity of local residents to regulate the behavior of their fellow neighbors” as paramount for understanding spatial differences in crime. ROBERT J. BURSIK, JR. & HAROLD G. GRASMICK, *NEIGHBORHOODS AND CRIME: THE DIMENSIONS OF EFFECTIVE COMMUNITY CONTROL*, at x (1993). Research by Sampson and a number of collaborators, on Chicago neighborhoods, offered evidence to support Shaw and McKay's theory that “structural antecedents” of social disorganization such as residential instability affect crime via social disorganization. See Robert J. Sampson & W. Byron Groves, *Community Structure and Crime: Testing Social-Disorganization Theory*, 94 AM. J. OF SOC. 774 (1989). Bursik and Grasmick's reformulation of social disorganization theory recasts it as a way to understand both formal and informal control, arguing that socially disorganized communities are less capable of providing for either mode of control. Sampson and collaborators' reconceptualized informal social control as a function of “collective efficacy,” which they define as the “linkage of cohesion and mutual trust with shared expectations for intervening in support of neighborhood social control.” Robert J. Sampson & Stephen W. Raudenbush, *Systematic Social Observation of Public Spaces: A New Look at Disorder in Urban Neighborhoods*, 105 AM. J. SOC. 603, 612-13 (1999); see also Sampson et al., *supra* note 18, at 919.

these researchers is that “the differential ability of neighborhoods to realize the common values of residents and maintain effective social controls is a major source of ... variation in violence.”²¹

Most relevant to the present inquiry, social disorganization theorists argued that population change disrupts social linkages and networks, thereby undermining a community’s capacity to exercise informal social control over anti-social, criminal activities.²² High rates of turnover in a population are thought to weaken social controls over collective life because mobility adversely affects the density and strength of local social ties. Many empirical studies lend credence to this theory, finding a relationship between various indicators of residential mobility and crime rates – violent crime rates in particular.²³ The disorganizing effects have been linked to various dimensions of population change, including not only

²¹ Sampson et al., *supra* note 18, at 918.

²² See, e.g., Kirk & Laub, *supra* note 5 (explaining that “shifts in the number and composition of its inhabitants . . . affect social networks and, in turn, may influence neighborhood processes such as informal social control”); Scott J. South & Steven F. Messner, *Crime and Demography: Multiple Linkages, Reciprocal Relations*, 26 ANN. REV. SOC. 83, 90 (2000) (explaining that social disorganization theorists continue to identify “demographic processes and structures such as population growth, population turnover (migration and residential instability), and racial/ethnic heterogeneity as critical factors affecting a neighborhood’s capacity to exert informal social control and to limit criminal activity”); Scott J. South, *Metropolitan Migration and Social Problems*, 68 SOC. SCI. Q. 3 (1987) (noting that “the allegedly disorganizing influence of geographic mobility has been a venerable theme of urban sociology”).

²³ See, e.g., Sampson & Groves, *supra* note 20, at 787, 790 (showing that residential stability has a large direct effect on local friendship networks and that friendship networks mediate the effect of residential stability on crime and victimization across British communities); Sampson et al., *supra* note 18, at 921-23 (demonstrating that residential stability is negatively associated with violent crime, and that these relationships are mediated in part by the authors’ measure of collective efficacy, and that residential stability, combined with concentrated disadvantage and immigration concentration, explained 70% of the neighborhood variation in collective efficacy); South, *supra* note 22, at 10-11 (finding that in-migration into metropolitan areas is significantly correlated with violent crime rates, net of other factors); Matthew T. Lee et al., *Does Immigration Increase Homicide? Negative Evidence from Three Border Cities*, 42 SOC. Q. 559 (2001) (finding that residential instability is positively and significantly correlated with homicide rates across census tracts of three border cities); see also Robert D. Crutchfield et al., *Crime Rate and Social Integration: The Impact of Metropolitan Mobility*, 20 CRIMINOLOGY 467 (1982); Stephen F. Messner, *Geographical Mobility, Governmental Assistance to the Poor, and Rates of Urban Crime*, 9 J. CRIME & JUST. 1 (1986). For a brief overview of scholarship on the link between population movements and crime, see South & Messner, *supra* note 22, at 90-91. The relationship is not unique to the United States. See, e.g., Van Wilsem et al., *Socioeconomic Dynamics of Neighborhoods and the Risk of Crime Victimization: A Multilevel Study of Improving, Declining, and Stable Areas in the Netherlands*, 53 SOC. PROBS. 226 (2006) (finding that the inflow of new residents into a neighborhood corresponds to a higher risk of criminal victimization).

turnover (i.e., total migration flows into and out of the area under analysis), but also in-migration or out-migration.²⁴ While the disorganizing, and thus, criminogenic, consequences of population change are most intuitively understood as operating at the local, neighborhood level, the relationship between it and higher crime rates has been discerned across larger areas such as cities and even countries.²⁵ And, as a leading historian of violence in America has argued, the greater residential mobility in America is one of four main factors responsible for national-level differences in murder rates between America and European countries.²⁶

Two overlapping accounts are commonly offered to explain how it is that population change interferes with communities' capacity to inhibit violence and deviance. First, the formation of social ties and networks that undergird this capacity for simply takes time.²⁷ Since "assimilation of newcomers into the social fabric of local communities is necessarily a temporal process, residential mobility operates as a barrier to the development of extensive friendship networks, kinship bonds, and local associational ties."²⁸ While earlier researchers argued that migration will make migrants themselves more prone to criminal offending because they are uprooted from "traditional [behavioral] restraints and [social] support," the later generation of research argued that the migration-crime relationship is rooted "not in the greater criminality of migrants but in a general breakdown in social integration."²⁹ A voluminous churning of the population, in other words, both disrupts existing networks and stunts the

²⁴ See, e.g., South, *supra* note 22, at 6 (noting that the logic of social disorganization has been applied to various dimensions of population change: notably, while "areas of rapid in-migration ostensibly contain a relatively high proportion of individuals with weak social bonds," out-migration may "also reduce . . . the degree of urban social integration, insofar as out-migrants withdraw from existing networks in the community of origin").

²⁵ For evidence of that relationship across cities or metropolitan areas, see South, *supra* note 22; Crutchfield et al. *supra* note 23; Messner *supra* note 22. For a review of the evidence of the relationship between population growth (due in part to in-migration) and homicide or violent crime internationally, see Gary LaFree, *A Summary and Review of Cross-national Research of Homicide*, in HOMICIDE: A SOURCEBOOK OF SOCIAL RESEARCH 125, 142 (M. Dwayne Smith & Margaret A. Zahn eds., 1999) (reviewing and concluding that all studies that investigated the question find a positive effect of population growth on homicide rates); see also JEROME L. NEOPOLITAN, *CROSS-NATIONAL CRIME: A RESEARCH REVIEW AND SOURCEBOOK* 93 (1997) (identifying five cross-national studies that confirmed the population growth-homicide relationship and four studies that did not).

²⁶ Monkkonen, *supra* note 11.

²⁷ Sampson et al., *supra* note 18, at 919.

²⁸ Sampson & Groves, *supra* note 20, at 780 (discussing John D. Kasarda & Morris Janowitz, *Community Attachment in Mass Society*, 39 AM. SOC. REV. 328 (1974), and Crutchfield et al., *supra* note 23).

²⁹ Steven Messner, *Geographical Mobility, Governmental Assistance to the Poor, and Rates of Urban Crime*, 9 J. CRIME & JUST. 1, 2 (1986) (reviewing literature).

development of new ones. Areas with unstable and transient populations tend to be characterized by a low degree of social integration, low social cohesion, high levels of anonymity, and low levels of commitment to collective and shared aims. All of these characteristics bode ill for the social capacity to spread and enforce norms against violent aggression and anti-social behaviors.³⁰

A parallel, more controversial argument has to do with the possible effect of population change on the heterogeneity of communities. Voluminous population turnover may increase the population's diversity, in terms of culture and ways of life as well as ethnicity, language, or religion. Heightened heterogeneity of a community is then thought to impede communication and understanding within a community and diminish the proportion of the population sharing the same social norms and behavioral expectations.³¹ Heterogeneity that results from population turnover, moreover, need not be ethno-racial or based on national origin, but may be simply "normative," denoting the non-uniformity of salient values and behavioral norms.³² This latter type of heterogeneity, as some scholars have argued, helps account for high crime rates even in ethno-racially homogenous urban areas, where a significant share of the (male) population is cycled into and out of prisons.³³ This cycle of what sociologist Todd

³⁰ See, e.g., Scott J. South, *Metropolitan Migration and Social Problems*, 68 SOC. SCI. Q. 3, 15 (1987) (observing that "the most commonly suggested explanation is that migration disrupts social relationships and consequently reduces the degree of social integration," which "weakens constraints on deviant behavior, reduces social support and control, and diminishes the probability that concerned others will intervene to deter deviant behavior.").

³¹ Heterogeneity is argued to affect crime and violence in its own right, i.e. irrespective of whether it resulted from relatively recent population change or has characterized a community for a long period of time. The relationship between ethno-cultural or otherwise measured heterogeneity itself and crime rates is complex and contested, both theoretically and empirically. For a meta-analysis of empirical findings with regard to different measures of heterogeneity, see Travis C. Pratt & Francis T. Cullen, *Assessing Macro-Level Predictors and Theories of Crime: A Meta-Analysis*, 32 CRIME & JUST. 373, 397-99 (2005) (finding that heterogeneity measures as percent non-white residents is among the strongest predictors of crime rates, while ethno-racial heterogeneity as such is among "mid-range" predictors). At the international level, compare Julio H. Cole & Andres Marroquin Gramajo, *Homicide Rates in a Cross-Section of Countries: Evidence and Interpretations*, 35 POP. & DEV. REV. 749 (2009) (finding that national ethno-linguistic diversity is significantly and positively related to the homicide rate), with Neopolitan *supra* note 25, at 94 (reviewing cross-national studies and finding results on various types of population heterogeneity to be mixed overall).

³² See, e.g., Edwin H Sutherland, *PRINCIPLES OF CRIMINOLOGY* 128 (3rd ed., 1924) (claiming that the relevant heterogeneity consists in increasing "the variety of patterns of behavior").

³³ Todd R. Clear et al. *Coercive Mobility and Crime: A Preliminary Examination of Concentrated Incarceration and Social Disorganization*, 20 JUST. Q. 33 (2003); see also

Clear and co-authors termed “coercive mobility”³⁴ introduces people socialized into an alternative set of behavioral norms in prisons back into the community, which fosters normative heterogeneity.

If social disorganization theory adequately captures the consequences of population change on public order, its implications for public policy may be troubling for advocates of more liberal immigration policies, advocates for greater labor mobility, as well as for those who favor a heavy reliance on mass incarceration to maintain law and order.³⁵ It means at minimum that freer immigration regimes, higher labor mobility, and spatially concentrated mass incarceration come at a cost of weakened informal social controls and thus, higher crime. If social disorganization insights apply equally to all sorts of movement of people into and out of communities, then the answer to a question recently posed by Robert Ellickson – “should the footloose Americans envy the rooted French?” – is a definitive “yes.”³⁶

B. Immigration and Crime in the United States

A more recent literature that focuses on the immigration-crime relationship, however, has furnished both empirical evidence and sound theoretical reasons to doubt the universal applicability of social disorganization-type arguments. If social disorganization results from *all* kinds of migratory changes to the population’s composition, then the arrival of foreign-born migrants should be no less, and potentially more, disruptive of the communal capacity for informal control than ordinary intra-national population instability.³⁷ Indeed, the early Chicago-school sociologists made this argument explicitly.³⁸ Nonetheless, most macro-level research on recent immigration into the United States either shows no evidence that

Dina R. Rose & Todd R. Clear, *Incarceration, Social Capital, and Crime: Implications for Social Disorganization Theory*, 36 CRIMINOLOGY 441 (1998).

³⁴ Clear et al., *supra* note 33, at 34.

³⁵ See *infra* Part IV.

³⁶ Ellickson, *supra* note 10.

³⁷ See Graham C. Ousey & Charis E. Kubrin, *Exploring the Connection between Immigration and Violent Crime Rates in U.S. Cities, 1980–2000*, 56 SOC. PROBS. 447, 449 (2009) (citing works broadly supportive of the proposition that “[a]s a major driver of population change and residential instability, immigration may thus be regarded as a critical factor behind the breakdown of informal social control and concomitant increases in crime rates,” or that “immigration creates population turnover and instability, which lead to more crime”)

³⁸ For an overview of the Chicago School’s approach to immigration and crime, see Robert J. Bursik, *Rethinking the Chicago School of Criminology: A New Era of Immigration*, in IMMIGRATION AND CRIME: ETHNICITY, RACE, AND VIOLENCE 20 (Ramiro Martinez, Jr. & Abel Valenzuela, Jr. eds., 2006).

immigration is criminogenic, or offers evidence that immigration actually ameliorates the social capacity to inhibit crime and violence and enhance public safety.³⁹ A number of neighborhood-, city- and census-tract-level studies have found that higher shares of recent immigrants correspond to lower rates of criminal violence.⁴⁰ And a number of scholars have

³⁹ It is important to distinguish research on the relationship between migration and crime at the macro-level and the individual-level studies of the propensity towards criminal offending among immigrants and non-immigrants. In the U.S. context at least, that late twentieth-century immigrants are less likely to offend than the native-born is a very well-supported proposition. See, e.g., Robert J. Sampson, Op-Ed., *Open Doors Don't Invite Criminals: Is Increased Immigration Behind the Drop in Crime?*, N.Y. TIMES, Mar. 11, 2006, at A27 (describing results of his Chicago study that “revealed that Latin American immigrants are less violent and less likely than the second and third generations to commit crimes even when they live in dense communities with high rates of poverty”); Ramiro Martinez, Jr. & Matthew T. Lee, *On Immigration and Crime*, in 1 CRIMINAL JUSTICE 2000, THE NATURE OF CRIME: CONTINUITY AND CHANGE, 485, 496 (Gary LaFree et al. eds., 2000) (“The major finding of a century of research on immigration and crime is that . . . immigrants nearly always exhibit lower crime rates than native groups.”); Howard Bodenhorn et al., *Immigration: America's Nineteenth Century “Law and Order Problem”?* 24, (Nat'l Bureau of Econ. Research, Working Paper No. 16266, 2010), available at <http://www.nber.org/papers/w16266>; cf. Martin Killias, *Immigration and Crime: The European Experience*, at <http://cadmus.eui.eu/handle/1814/18960> (reviewing evidence to the contrary in Europe). The question of the ecological or macro-level impact, however, is more complex and has been subject of fewer studies. See, e.g., Ousey & Kubrin, *supra* note 37, at 447; Lesley Williams Reid et al., *The Immigration-Crime Relationship: Evidence across U.S. Metropolitan Areas*, 34 SOC. SCI. RES. 757 (2005).

⁴⁰ See, e.g., Reid et al., *supra* note 39, at 772-74 (finding that “the greater the relative size of the recent foreign-born population,” the lower the homicide rate across a representative sample of 150 US metropolitan areas in 2000); Lee et al., *supra* note 23 (finding a negative and significant correlation between the percentage of recent immigrants and Black and Latino homicide rates across census tracts in Miami, El Paso, and San Diego in the 1990s). For studies finding no relationship between immigration and crime at the macro-level, see, e.g., Kristin F. Butcher & Anne Morrison Piehl, *Cross-city Evidence on the Relationship Between Immigration and Crime*, 17 J. OF POL'Y ANALYSIS & MGMT, 457 (1998) (finding no relationship between the percent of the population who are immigrants and the crime rate across a sample of metropolitan areas between 1980 and 1990); John Hagan & Alberto Palloni, *Immigration and Crime in the United States*, in THE IMMIGRATION DEBATE: STUDIES ON THE ECONOMIC, DEMOGRAPHIC, AND FISCAL EFFECTS OF IMMIGRATION 367 (James P. Smith & Barry Edmonston eds., 1998) (finding that border cities with larger immigrant populations do not have higher crime rates than comparable non-border cities with smaller such populations); Amie L. Nielsen, Matthew T. Lee & Ramiro Martinez, Jr., *Integrating Race, Place and Motive in Social Disorganization Theory: Lessons from a Comparison of Black and Latino Homicide Types in Two Immigrant Destination Cities*, 43 CRIMINOLOGY 837 (2005) (finding that recent immigration is negatively related or unrelated to incidence of motive-specific homicides). Cf., e.g., Sampson et al., *supra* note 18, at 921-22 (finding that immigrant concentration is positively related to some measures of neighborhood violence under some specifications). For a general overview of studies examining the immigration-crime link at the macro-level, see Kirk & Laub, *supra* note 5, at 480-82.

suggested that the unexpected great American crime decline of the 1990s is not unrelated to the arrival of Latino and Asian immigrants.⁴¹ The introduction of these newcomers, with their “tight-knit families, economic entrepreneurship, and collective efficacy” may help explain why crime declined most steeply in major immigrant destination cities.⁴² Overall, reviews of recent literature have concluded that “[f]rom the limited research available, it appears that the concentration of immigration indirectly promotes reductions in crime and violence.”⁴³

C. *Reconciling Social Disorganization Perspectives with Contemporary Immigration-Crime Research*

Why does the change to the population composition caused by immigration in late-twentieth century America appear to have such different effects from similar changes caused by total residential instability examined in social disorganization research?⁴⁴ One promising perspective suggests that rather than disrupting *existing* social networks and institutions, these

⁴¹ See, e.g., Sampson, *supra* note 39 (arguing that the drop in crime that began in the United States in the early 1990s can be partially explained by increases in immigration).

⁴² Vanessa Barker, *Explaining the Great American Crime Decline: A Review of Blumstein and Wallman, Goldberger and Rosenfeld, and Zimring*, 35 LAW & SOC. INQUIRY 489, 492 (citing Lee et al., *supra* note 23; Robert J. Sampson, *Rethinking Crime and Immigration*, 7 CONTEXTS 28 (2008)). Systematic longitudinal studies have lent support to this connection. See, e.g., Jacob I. Stowell et al., *Immigration and the Recent Violent Crime Drop in the United States: A Pooled, Cross-Sectional Time-series Analysis of Metropolitan Areas*, 47 CRIMINOLOGY 889, 889 (2009) (finding support for the hypothesis that “the broad reductions in violent crime during recent years are partially attributable to increases in immigration”); Ousey & Kubrin, *supra* note 37, at 447 (finding evidence for the argument that immigration lowers violent crime rates by “bolstering intact family structures”).

⁴³ Kirk & Laub, *supra* note 5, at 484. See also Ousey and Kubrin, *supra* note 37, at 454-465 (reviewing 11 aggregate-level quantitative studies on the immigration-crime relationship, and showing that only two studies find any positive relationship between a subset of immigrants and some categories of crime); Jacob I. Stowell & Ramiro Martinez Jr., *Displaced, Dispossessed, or Lawless? Examining the Link Between Ethnicity, Immigration, and Violence*, 12 AGGRESSION & VIOLENT BEHAV. 564, 568 (2007) (reviewing literature and claiming that “the weight of the evidence suggests that immigration is not associated with increased levels of crime,” and “[t]o the extent that a relationship does exist, the literature consistently finds a negative effect of immigration on levels of crime, and particularly homicide.”)

⁴⁴ For calls for further research into this question, see Kirk & Laub, *supra* note 5, at 486 (“we know that [some kinds of] population turnover ... is positively correlated with changes in neighborhood crime ... and that the concentration of immigration is negatively correlated with crime, but we have less understanding as to why this is the case.”); Monkkonen, *supra* note 11, at 91 (citing a need for “a more satisfactory and comprehensive means of teasing out ‘good’ mobility from bad ‘stability’”).

immigrants may *bring with them* stronger social institutions that on balance bolster the community's capacity to constrain criminal predation.⁴⁵ Recent waves of Latino and Asian immigrants into the United States may bolster the capacity for informal social control in part because of the traditional and pro-family values widely ascribed to the newcomers, but also because patterns of migration and settlement of migrants facilitate the spread and enforcement of such pro-social norms.

Underlying the suggestion that immigrants reproduce robust forms of social organization is a positive theory about migration and settlement patterns. Migration patterns tend to be self-perpetuating: "once a migration stream has been initiated ... it tends to persist and grow over time."⁴⁶ A central reason for this self-perpetuating character is the role of social networks in lowering the costs of migration. Migrant networks – that is, "sets of interpersonal ties that link migrants, former migrants, and nonmigrants in origin and destination areas by ties of kinship, friendship, and shared community origin"⁴⁷ – lower the costs of migration for prospective migrants and exert an influence on the latter's destination choice.⁴⁸ This so-called "cumulative causation" model of migration is not specific to international population movements: in fact, the network-driven character of some population movements were noted by scholars who were examining urban growth and urbanization in the 19th and 20th centuries.⁴⁹

⁴⁵ See, e.g., Ramiro Martinez, *Coming to America: The Impact of the New Immigration on Crime*, in IMMIGRATION AND CRIME: RACE, ETHNICITY, AND VIOLENCE 1 (Ramiro Martinez & Abel Valenzuela eds., 2006) (proposing that "an influx of immigrants ... may encourage new forms of social organization and adaptive social structures"); Kirk & Laub, *supra* note 5 at 486 ("One answer [for the differential consequences of different kinds of population change] appears to be informal social control; [for example,] instability in neighborhood social networks due to gentrification can undermine informal social control while homogeneous ethnic enclaves of immigrant groups can facilitate social control."); Lee et al., *supra* note 23 (suggesting that one implication of a study showing no disorganizing effects of immigration on communities, is that "community social control may actually be strengthened by immigration, an image that is at odds with criminological theory").

⁴⁶ Douglas S. Massey & Rene M. Zenteno, *The Dynamics of Mass Migration*, 96 PROC. NAT'L. ACAD. SCI., 5328, 5328 (1999).

⁴⁷ Douglas S. Massey, *Social Structure, Household Strategies, and the Cumulative Causation of Migration*, 56 POPULATION INDEX 3, 7 (1990).

⁴⁸ For a discussion of studies broadly supportive of cumulative causation theory, see William Frey and Kao-Lee Liaw, *The Impact of Recent Immigration on Population Redistribution within the US*, in THE IMMIGRATION DEBATE: STUDIES OF ECONOMIC, DEMOGRAPHIC AND FISCAL EFFECTS OF IMMIGRATION 388, 389-392 (James P. Smith & Barry Edmonston eds., 1998).

⁴⁹ At least in some contexts and in certain stages of development, similar network-driven patterns were argued to characterize unconstrained internal migration. See, e.g., Scott J. South, *Metropolitan Migration and Social Problems*, 68 SOC. SCI. Q. 3, 4 (1987); Charles

Cumulative causation-type dynamics explain the tendency for co-nationals to concentrate spatially and to form “ethnic enclaves.” They also shed light on the proposition that international migration may well enhance the robustness of social networks.⁵⁰ Settlement patterns resembling ethnic enclaves “promote or maintain family ties and social networks, ... and bolster informal social control, all of which help curb crime.”⁵¹ In sum, the settlement patterns produced by migration that is driven by social ties and networks “may mediate the negative effects of economic deprivation and various forms of demographic heterogeneity (ethnic, cultural, social) on formal and informal social control, thereby decreasing crime.”⁵²

The implications of cumulative-causation theory, then, are in tension with the predictions of social-disorganization perspectives. If migration conforms to the cumulative-causation dynamics and the empirical findings linking immigrant concentration to lower crime rates are robust, then the

Tilly & C. Harold Brown, *On Uprooting, Kinship, and the Auspices of Migration*, in AN URBAN WORLD 108 (Charles Tilly ed., 1974); Harvey M. Choldin, *Kinship Networks in the Migration Process*, 7 INT’L MIGRATION REV. 163 (1973); John S MacDonald. & Leatrice D. MacDonald, *Chain Migration, Ethnic Neighborhood Formation, and Social Networks*, in AN URBAN WORLD 226 (Charles Tilly ed., 1974); Graeme J. Hugo, *Village-Community Ties, Village Norms, and Ethnic and Social Networks: A Review of Evidence from the Third World*, in MIGRATION DECISION MAKING: MULTIDISCIPLINARY APPROACHES TO MICROLEVEL STUDIES IN DEVELOPED AND DEVELOPING COUNTRIES 186 (Gordon F. DeJong & Robert W. Gardner eds., 1981). However, under some other circumstances, internal migration does *not* rely as heavily on networks: for example, Frey and Liaw point to evidence that in the latter decades of the twentieth century, internal migration in the U.S. is less influenced by social networks than recent international immigration. Frey & Liaw, *supra* note 48, at 392.

⁵⁰ On the tendency for some immigrant groups to settle near their co-ethnics or compatriots, *see, e.g.*, Sampson, *supra* note 42; Frey & Liaw, *supra* note 48.

⁵¹ Ousey & Kubrin *supra* note 37, at 452. *See also* Scott A. Desmond & Charis E. Kubrin, *The Power of Place: Immigrant Communities and Adolescent Violence*, 50 SOC. Q. 581 (2009). Ethnographic studies also offer empirical evidence in support of the argument that social networks in ethnic enclaves are conducive towards control over anti-social or deviant behaviors. *See, e.g.*, Min Zhou & Carl L. Bankston III, *Delinquency and Acculturation in the Twenty-First Century: A Decade’s Change in a Vietnamese American Community*, in IMMIGRATION AND CRIME: RACE, ETHNICITY, AND VIOLENCE 117 (Ramiro Martinez Jr. & Abel Valenzuela Jr. eds., 2006); ALEJANDRO PORTES & ALEX STEPICK, *CITY ON THE EDGE: THE TRANSFORMATION OF MIAMI* (1993).

⁵² Martinez, *supra* note 45, at 10. To be sure, scholars have pointed also to other reasons why immigrant concentration may contribute to lower crime rates: for example, immigrants’ participation in the labor market and their contribution to urban revitalization of depressed areas, *see* Ousey & Kubrin, *supra* note 37, the less violence-supporting cultures of some immigrant populations, *see* Sampson, *supra* note 42, at 33, as well as the mode of incorporation of migrants into host societies, *see* Reid et al., *supra* note 39, at 759. These complementary possibilities make it challenging to identify more precisely what is behind the apparent migrant concentration–lower crime connection in the American context.

costs of a freer immigration regime, as well as other kinds of population movements with similar dynamics, may not be as high as social disorganization theories suggest.

Cumulative causation theory predicts that in absence of strong barriers to or firm direction over migration flows, migrant networks will play a prominent role in the formation and growth of migrant communities. And where social structures are preserved or easily reconstituted in places of new settlement, population movements are unlikely to dilute that social glue that enables groups to limit behaviors threatening to their peaceful existence. The corollary to this hypothesis is, of course, that population movements, which take place under considerable constraints, entail breaking up of social networks, and do not allow their easy reconstitution would be particularly damaging to the capacity for informal self-regulation. The same logic may be extended to the argument that migration is criminogenic because it increases population heterogeneity. When migration patterns form as a result of cumulative causation, the increasing heterogeneity of the population may be offset by a concentration of relatively cohesive sub-communities. When social ties play a lesser role in directing migration flows and settlement patterns, the increase in population heterogeneity is not offset in this way.

It is not easy to test the proposition that social-network-disrupting movements erode the capacity for informal social control and undermine public order. It is challenging to isolate a particular migration wave or a discrete set of population movements that may be characterized either as social-network-disrupting or network-driven.⁵³ Russia's experience under

⁵³ Although areas with high concentrations of migrants such as ethnic enclaves may constitute evidence of a prominent role of social networks, it is difficult to distinguish "communities of choice or refuge" from "ghettos of last resort." Desmond & Kubrin, *supra* note 51, at 583 (citing Mark A. Glaser et al., *Community of Choice or Ghetto of Last Resort: Community Development and the Viability of an African American Community*, 20 REV. OF POL'Y RES. 525, 526 (2003)); *see also* Corina Graif & Robert J. Sampson, *Spatial Heterogeneity in the Effects of Immigration and Diversity on Neighborhood Homicide Rates*, 13 HOMICIDE STUD. 242, 244-45 (2009). The difference between the two phenomena is relevant to the public-order consequences of settlement patterns, but empirically elusive. For example, the spatial concentration of African Americans in urban America on its face resembles ethnic enclaves; however, these settlement patterns are to a great degree a result of residential segregation and cannot be said to have resulted from unconstrained, network-driven population movements. *See, e.g.*, Douglas S. Massey, *Getting Away with Murder: Segregation and Violent Crime in Urban America*, 143 U. PA. L. REV. 1203, 1207 (1995) (finding that segregation of urban blacks in America "is largely involuntary and stems from the operation of three interrelated and mutually reinforcing forces": "institutionalized discrimination in the real estate and banking industries," "prejudice among whites against blacks as potential neighbors," and "discriminatory public

Soviet rule furnishes what is perhaps a singularly fitting example of population movements that definitively disrupted preexisting social structures and obstructed formation of new ones. And post-communist Russia, as further discussion will clarify, furnishes a particularly appropriate context in which to examine the public-order consequences of disruptive population movements. As the following section demonstrates, the Russian *post-communist* human geography was shaped by *communist-era* migration and settlement patterns that could not but disrupt dramatically the existing social ties. Thus, areas most affected by these demographic processes were least equipped to resist criminal violence after the collapse of the Soviet state. The consequences of historic population change in this context are consistent with social disorganization predictions because these population movements resulted from heavy-handed state control, which minimized the role of migrant networks.

Russia's experience is particularly useful for empirical study also because of a looser correlation between migration and a spatial concentration of economically disadvantaged residents or ethno-racial minorities. Studies of relationship between migration and crime face the complex task of disentangling the consequences of co-occurring population movements and the creation of economically disadvantaged and/or ethno-racially defined disenfranchised sub-populations. Soviet migration did not, by and large, concentrate economically disadvantaged migrants in particular areas or produce ethno-racial ghettos of the dispossessed. This allows us to speculate with a higher degree of confidence about the consequences of network-breaking population change as such, without a high risk of conflating these consequences with those of deepening socio-economic marginalization.

In the next section, I offer a brief account of internal migration under the Soviet regime, which illustrates these claims in greater detail.

II. PAST MIGRATION AND PRESENT VIOLENCE: THE RUSSIAN EXPERIENCE

policies"). Thus, the sheer existence of concentrated migrant settlement patterns is not unambiguously a result of unconstrained processes contemplated by cumulative causation theory. To classify any settlement pattern as a result of network-disrupting or network-driven migration processes, a closer, more granular study of the processes themselves is needed.

A. Soviet-era Internal Migration

“The USSR [was] a country of high population mobility. The basis for this mobility is not citizens’ simple and free choice of a place of residence, made on the basis of their preferences and in response to labor and housing markets. Soviet population mobility is of a completely different type, of a planned, mass, and command – in a word, of a coerced – character.”⁵⁴ To say that population mobility in the USSR was *wholly* coercive overstates the case.⁵⁵ Nonetheless, Soviet leaders did seek control over the mobility and movements of its citizens, as part of their attempts to remake man and society anew. Throughout its existence, the Soviet regime attempted to subject its citizens’ mobility to centralized and “rationalized” state control, albeit with varying degrees of success. Parts of contemporary Russia owe the bulk of their populations to internal migration within the Soviet Union in the communist era. That internal migration was produced by dynamics that differed fundamentally from the network-driven migration postulated by cumulative causation theories. If it is the network-based, cohesion-enhancing nature of much voluntary migration that helps explain its beneficial effects for the public order, then the very different character of migration in the Soviet era should have produced the opposite effects.

1. Stalinist Forced Development

During the earlier decades of the regime’s existence, until the death of Joseph Stalin, the strategies adopted to deal with the regime’s most salient economic and political problems involved an extensive internal reshuffling of the population.⁵⁶ Speaking broadly, Stalinist population management policies pursued two aims, to break potential sources of political resistance to the regime, and to attain and fix in place a “rational”

⁵⁴ PAVEL M. POLIAN, *NE PO SVOEI VOLE: ISTORIIA I GEOGRAFIIA PRINUDITEL'NYKH MIGRATSII V SSSR* [Against Their Will: The History and Geography of Coerced Migrations in the USSR] 12 (2001).

⁵⁵ See, e.g., Cynthia Buckley, *The Myth of Managed Migration: Migration Control and Market in the Soviet Period*, 54 *SLAVIC REV.* 896 (1995). For an overview of the debate regarding the extent of state coercion in Soviet migration, see Claire Messina, *From Migrants to Refugees: Russian, Soviet and Post-Soviet Migration*, 6 *INT’L J. REFUGEE L.* 620, 622-623 (1994).

⁵⁶ The regime’s most salient economic problems were ones of economic modernization, rooted in the inescapable fact that “the Bolsheviks had effected a supposedly urban-based, proletarian revolution in a largely agrarian state.” FIONA HILL & CLIFFORD GADDY, *THE SIBERIAN CURSE: HOW COMMUNIST PLANNERS LEFT RUSSIA OUT IN THE COLD* 68 (2003). Alongside the economic imperative to urbanize and industrialize, the early Bolshevik regime faced a vast array of threats to their political power, real and imagined.

distribution of human resources that corresponded to the needs of economic planning. As a result, the center of population gravity shifted from rural to urban areas and from historically settled to previously undeveloped, sparsely populated territory.⁵⁷

Much of the population redistribution between 1917 and 1953, and especially during Stalin's reign, was accomplished with various degrees of coercion. The uprooting and resettlement of the population began in earnest with the collectivization of agriculture, which drove millions of peasants out of their villages.⁵⁸ Some of them flooded into the cities to escape collectivization; some were exiled or incarcerated on the grounds of belonging to the ill-defined wealthy-peasant class, and others were reorganized into collective farms, the new unit of agricultural production.⁵⁹ The introduction of the passport system then asserted control over population mobility in a different manner, by tying the collectivized peasants to their collective farms.⁶⁰

The concomitant industrialization drive collected the formerly agricultural population into radically industrializing areas. Along with established, historical urban centers such as Moscow and St. Petersburg, people streamed into newer urban settlements, formed overwhelmingly around sites of industrial exploitation. The location of industrial sites was selected by state planners, often with purposeful disregard for the absence of labor in its vicinity.⁶¹ While the existing industrial base in the central and

⁵⁷ Policies bearing on population movements were Soviet Union-wide. In the present discussion, I emphasize the consequences of state action on the territory of the present-day Russian Federation.

⁵⁸ To be more precise, the initial waves of internal migration unleashed by collectivization were not firmly managed or directed by the state. The very chaos of unmanaged migration in these initial phases of collectivization led the leadership to seek greater control over migration. See, e.g., DAVID HOFFMAN, PEASANT METROPOLIS: SOCIAL IDENTITIES IN MOSCOW, 1929-1941, 32-72 (1994). For an argument for the decisive role of state coercion in producing rural-urban flight, see Sheila Fitzpatrick, *The Great Departure: Rural-Urban Migration in the Soviet Union, 1929-33*, in SOCIAL DIMENSIONS OF SOVIET INDUSTRIALIZATION 22 (William G. Rosenberg & Lewis H. Siegelbaum eds., 1993).

⁵⁹ At least 25 million peasants fled for towns and cities between 1926 and 1936 alone, escaping both collectivization and its consequences. See, e.g., ROBERT A. LEWIS ET AL., NATIONALITY AND POPULATION CHANGE IN RUSSIA AND THE USSR: AN EVALUATION OF CENSUS DATA, 1897-1970 100 (1976).

⁶⁰ Passports became required for legal residence and employment in "passportized" urban or strategically important areas. A complementary registration system required a stamp in one's passport indicating one's legal residence ("*propiska*"). Passports were denied to the rural population, who were thus unable to move into passportized areas on their own volition. See MERVYN MATTHEWS, THE PASSPORT SOCIETY: CONTROLLING MOVEMENT IN RUSSIA AND THE USSR 27-31 (1993).

⁶¹ See, e.g., A. S. SENIAVSKII, URBANIZATSIIA V ROSSII V XX VEKE: ROL V ISTORICHESKOM PROTSESSE [URBANIZATION IN RUSSIA IN THE 20TH CENTURY: ROLE IN HISTORICAL

European parts of USSR and Russia proper was enlarged and modernized, new enterprises were planned on a mass scale where unexploited natural resources were located – that is, in the comparatively undeveloped expanses of the Soviet territory.

To channel working-age people from areas of labor surplus to areas of labor shortages, state planners created a number of labor allocation mechanisms, including organized recruitment as well as labor drafts.⁶² To ensure that people remained where they were allocated, harsh labor-discipline laws forbade workers from leaving their jobs at will and made the slightest infraction harshly punishable.⁶³ To ensure the desired spatial configuration of urban and industrial growth, limits were imposed on industrial construction and population growth in existing established population centers.⁶⁴

PROCESSES] 93-94 (2003) (explaining the planners' rejection of "capitalist" economic theory, which called for situating industry in places where human capital is already concentrated and at the intersection of transport and communication arteries); Moshe Lewin, *On Soviet Industrialization*, in SOCIAL DIMENSIONS OF SOVIET INDUSTRIALIZATION 282 (William G. Rosenberg & Lewis H. Siegelbaum eds., 1993) (noting that the population was treated not as a constraint on development, but rather as a passive "labor resource." Labor was thought "plentiful," and was thus "unceremoniously shuffled about" the immense territory as needed).

⁶² The Organized Labor Recruiting Service ("Orgnabor"), established in 1931, was the main body responsible for channeling the economically active population to areas of labor shortages, on both permanent and temporary bases. Its main task initially was to "recruit" labor from collective farms to urban industry: in effect, collective farms were simply compelled to provide industrial enterprises with labor. See, e.g., Polian *supra* note 54, at 49; Fitzpatrick, *supra* note 58, at 18-19. Labor recruits were a significant stream in overall internal population movements of the 1930s-1950s. See, e.g., Lewis et al., *supra* note 59, at 19; Fitzpatrick, *supra* note 58 at 20-21. War-time labor drafts included the establishment of the Labor Reserve in 1940, a system of labor conscription for young workers, a system of conscription of youths and women, as well as a "labor army" composed of some of the internally exiled populations. See DONALD. A. FILTZER, *SOVIET WORKERS AND LATE STALINISM: LABOUR AND THE RESTORATION OF THE STALINIST SYSTEM AFTER WORLD WAR II* (2002).

⁶³ A 1932 law made even a single day of unauthorized absence from work a firable offense, and losing one's job meant losing enterprise-provided housing and ration entitlements. The 1938 introduction of "work books" was also intended to fight labor turnover and to reduce uncontrolled worker decisions to leave jobs: the work book recorded all job changes, rewards, and punishments, which made workers' prior violations of the law transparent to potential employers. An infamous June 1940 measure, justified by impending military necessity, made it illegal for workers to leave their jobs without managerial approval and introduced criminal punishments for laziness, poor discipline, and tardiness. See Filtzer, *supra* note 62, at 160-163; Andrey Sokolov, *Forced Labor in Soviet Industry: The End of the 1930s to the Mid-1950s: An Overview*, in THE ECONOMICS OF FORCED LABOR: THE SOVIET GULAG 25 (Paul R. Gregory & Valery Lazarev eds., 2003).

⁶⁴ The preference for exploiting natural resources at their source and the desire to build "new socialist cities" attached to the site of exploitation was also pursued by limiting

Most infamously, the task of taming, industrializing, and populating the harshest, least developed corners of the USSR was shifted onto forced labor. In addition to the millions interned in Gulag camps and colonies, millions more were internally exiled, confined to a series of “special settlements” that comprised, in the words of historian Lynne Viola, the “other archipelago.”⁶⁵ Gulag camps were located all over the country, and inmates worked on projects all over the USSR; however, especially within Russia, the greatest concentration of prisoners and exiles was in remote northern and eastern parts, near the sites of some of the grandest construction projects and industrial enterprises, where it was difficult and costly to relocate and retain free labor.⁶⁶

2. Post-Stalinist Period

The ascendance to power of Nikita Khrushchev, marked a fundamental change in the regime’s approach to population control. While the administrative-command regime retained totalitarian traits, the use of force to achieve or maintain a particular distribution of the citizenry has

industrial construction and growth in many established population centers. Since the 1930s, planners have imposed limits on city expansion, construction- and population-wise. By the close of the communist era, about 200 cities were under total or partial restrictions on further construction and population growth. See Ira N. Gang & Robert C. Stuart, *Mobility Where Mobility is Illegal: Internal Migration and City Growth in the Soviet Union*, 12 J. POP. ECON. 117 (1999); Buckley, *supra* note 55.

⁶⁵ LYNNE VIOLA, *THE UNKNOWN GULAG: THE LOST WORLD OF STALIN'S SPECIAL SETTLEMENTS I* (2007). Special settlements received millions of repressed *kulaks* (i.e. wealthier peasants), “socially alien,” “counterrevolutionary,” and the ever-multiplying array of anti-Soviet elements. It is to the settlements of the other archipelago that the vast majority of the so-called “punished peoples” were deported during World War II – i.e. entire ethnic groups who were thought to collaborate or sympathize with Nazi Germany. See *id.* at 1-10; Polian, *supra* note 54; VIKTOR N. ZEMSKOV, *SPETSPOSELENTSY V SSSR 1930-1960, [Special Settlers in the USSR, 1930-1960]* (2003).

⁶⁶ See, e.g., Hill & Gaddy, *supra* note 56, at 2 (observing that forced labor was channeled to industrial and urban build-up projects “in some of the harshest and most forbidding places on the planet, where the state could not otherwise have persuaded its citizens to go en masse on a permanent basis”); Zhanna A. Zayonchkovskaia, *Rossii: Migratsiia v Raznom Masshtabe Vremeni* [Russia: Migration in Time Scale] 9 (Tsentri Izucheniia Problemy Vynuzhdennoy Migratsii v SNG [Center for the Study of Coerced Migration in the CIS], 1999) (explaining that “camps formed the foundation of many soviet cities and towns,” and “were an essential attribute of every new construction, site of exploitation of natural resources, large industrial developments”). For maps of Gulag camps and colonies, see Economic & Social Research Council, *MAPPING THE GULAG: RUSSIA'S PRISON SYSTEM FROM THE 1930S TO THE PRESENT*, <http://www.gulagmaps.org/maps/> (last modified Dec. 9, 2009, 14:18:45 GMT). For a more detailed reconstruction of camp locations, see M.B. Smirnov, *Sistema Ispravitelno-trudovykh Lagerei* [System of Correctional-Labor Camps], MEMORIAL, <http://www.memo.ru/history/NKVD/GULAG/index.htm>.

become much less frequent by the 1960s and 1970s. Khrushchev largely dismantled the Gulag and exile archipelagoes, and lessened the regime's reliance on administrative resettlement and the more coercive labor allocation mechanisms.⁶⁷

Yet, post-Stalinist planners persisted in seeking to control the distribution and movement of residents, aiming in particular to retain a sufficiently large labor force in areas that were forcibly developed under Stalin. They relied on a variety of levers to do so: most prominent among these included the direct assignment of graduates to jobs, administrative limits on the expansion of industry or population growth of the biggest cities to which people otherwise would have gravitated, and a system of wage differentials that rewarded relocation to labor-deficit areas.⁶⁸

The consequences of retrenchment from coercion and embracing administrative means of command were unsurprising. While gross redistribution of the population east and north slowed, the post-Stalinist state continued to induce migration to labor-shortage areas. What the state could no longer do is immobilize or "root down" migrants in places of resettlement. Policies such as assignments and wage differentials dragged and lured workers and settlers to target sites, but they did not effectively counteract out-migration, or create sufficiently attractive living conditions to build up a rooted, permanent population. As a result, the state's continuous efforts to channel and coax people into forcibly developed areas fostered voluminous, but inefficient migratory turnover.⁶⁹ Migratory turnover layered on top of the artificial origins of many new settlements produced areas peopled with what may be called "unrooted" residents: i.e., residents who were born elsewhere, of whom many were recent settlers unconnected to extensive social networks.

⁶⁷ For a discussion of dismantling the Gulag, see MIRIAM DOBSON, *KHRUSHCHEV'S COLD SUMMER: GULAG RETURNEES, CRIME, AND THE FATE OF REFORM AFTER STALIN* 109-12 (2009).

⁶⁸ See, e.g., Sokolov, *supra* note 63, at 37; PETER J. GRANDSTAFF, *INTERREGIONAL MIGRATION IN THE U.S.S.R.: ECONOMIC ASPECTS, 1959-1970* 21, 36, 88 (1980).

⁶⁹ "Migration efficiency" of an area is net migration divided by the total number of moves into and out of the area, multiplied by 100. It represents the net gain or loss to a population as a result of a number of moves in and out of an area. E.g., Omer R. Galle & Max W. Williams, *Metropolitan Migration Efficiency*, 9 *DEMOGRAPHY* 655 (1972). For discussions of population turnover and migratory inefficiency, see Messina, *supra* note 55, at 623; Grandstaff, *supra* note 68, at 50-51; John Sallnow, *Siberia's Demand for Labour: Incentive Policies and Migration, 1960-85*, in *THE DEVELOPMENT OF SIBERIA: PEOPLE AND RESOURCES* 201 (Alan Wood & R. A. French eds., 1989).

3. Salient Characteristics of Soviet-era Internal Migration

To be sure, population mobility and internal migrations intensify greatly in every country undergoing economic modernization. It is not then the sheer *fact* of population mobility that distinguished the uprooting of a stationary population on Soviet territory from increasing mobility of other developed states, but the character of that mobility. In Soviet Russia, the movement of people to fuel the rapid growth of far-flung, newly created cities attenuated and severed historic patterns of social connectedness much more so than in other modernizing countries – and certainly more so than would have been the case without centralized command. Stalinist forced development gave birth to human settlements in sites where these would not have arisen, at least not on the same scale, but for coercive state action. The people who were forced or induced to new settlements had little that bound them to each other or to their new communities.

Soviet planners, to quote one well-put verdict, succeeded in “put[ting] factories, machines, and people in the wrong places.”⁷⁰ Even when not effected by brute coercion, Soviet population management served to disrupt existing social organization and deepen the population heterogeneity in many areas. The paramount role of the state in directing the patterns and directions of internal migration minimized the role of informal social networks. Labor-need-driven migration did not easily accommodate extended family, kin, or friendship networks. Relatives and friends who sought to relocate merely to follow others faced the obstacle of obtaining official permission and a registration on arrival, a difficult task without legal employment. Inability to obtain registration meant that illegal migrants were cut off from all social provisions. There was, in short, far less room for the emergence of the kind of chain migration that links family and friends to common destinations in absence of heavy-handed control.⁷¹ The absence of chain-driven migration was especially acute in places of new settlement, in Russia’s East and North. In areas with a longer history, traditional social organization and social forms (i.e., familial, religious, village-based and ethno-national networks) survived to various degrees. It was places of new settlement that disproportionately concentrated diverse, uprooted, disempowered individuals, with little in the way of pre-communist social ties.⁷²

⁷⁰ HILL & GADDY, *supra* note 56, at 3.

⁷¹ This is not to claim that the planners were always successful in controlling movement. For an account of strategies of circumvention of official regulation of mobility and settlement, see Buckley, *supra* note 55, at 911.

⁷² New socialist population centers, moreover, were “designed to facilitate their residents’ service to the state, not to foster social connections.” Hill & Gaddy, *supra* note 56, at 108.

State-directed population change also induced the kind of heterogeneity in some areas that was likely to complicate the social processes constitutive of informal crime control. First, the regions of new settlement disproportionately concentrated ex-prisoners and exiles, for whom residence in major and central cities, as well as return to their homelands, was legally foreclosed. As was argued by one scholar in 1980, on the basis of then-available information, the restrictions on residency of convicts released from Gulag prisons and camps, along with other population control measures, “have resulted in a geography of crime that is different from that of other countries of similar economic and social development.”⁷³ A concentration of people socialized into the camp or exile counter-culture entrenched a sub-population with a normative orientation at odds with that of ordinary citizens.

Yet, it would be a mistake to conclude that regions with high migratory turnover are simply the regions that entered the post-communist period with a larger share of criminals in their populations. For decades preceding the Soviet Union’s collapse, migration into and through regions of newer settlement consisted predominantly of ordinary citizens.⁷⁴ The ordinary citizens who were induced to move to areas of comparatively new development, however, were also highly heterogeneous with regard to places of origin. Both Stalin-era resettlers and post-Stalinist migrants into areas of new settlement rarely moved to culturally or socially proximate and cohesive communities or, for ethnic non-Russians, communities of their co-ethnics.⁷⁵ Migrants into areas of new settlements came from further away than migrants into established, older centers, and often from areas with

This meant that new residents had few opportunities to form organic connections to their new communities that were unmediated by the organizational infrastructure of the party-state.

⁷³ Louise Shelley, *The Geography of Soviet Criminality*, 45 AM. SOC. REV. 111, 113 (1980). Thus, large numbers of internal migrants, including convicts, settled in small and medium-sized towns primarily in “geographically remote areas where they can easily obtain residence permission from the police.” *Id.* at 114. See also Gennady V. Dashkov, *Quantitative and Qualitative Changes in Crime in the USSR*, 32 BRIT. J. CRIMINOLOGY 160 (1992) (noting, on the basis of then-recently opened statistics on criminal phenomena, that the growth of violent crimes during the 1970s and 1980s was especially rapid in newly-settled rural areas).

⁷⁴ It should also be kept in mind that many people confined to exile or the Gulag were not targeted on the basis of any acts that would be considered criminal or anti-social in themselves. On the composition of the exiled population see generally Zemskov, *supra* note 65; on the Gulag population, see generally, ANNE APPLEBAUM, *GULAG: A HISTORY* (2003). See also *infra* text accompanying notes 105-07.

⁷⁵ The one notable exception is the return of some of the so-called “punished peoples” to their homelands – entire ethnic groups that Stalin deported internally – beginning in the latter half of the 1950s through the 1990s, where some of the former exiles reconstituted their traditional communities. See Polian *supra* note 54, at 123-153.

vastly different ethno-cultural and economic, to say nothing of climactic, conditions.⁷⁶ Long-distance migrants were also less likely to know people in the place of arrival, and entered communities with fewer robust social networks upon which to draw in the process of settling.

At the same time, previously noted characteristics of Soviet migration that make it an empirically convenient case for analysis should be emphasized. Soviet-era migration patterns did not correlate as strongly with the creation of economically disadvantaged sub-populations or with the creation of an ethno-racially defined disenfranchised class, as is the case in many other contexts. Both of those developments may erode the foundations of public order for reasons distinct from the impact of population movements on the social fabric and the capacity for informal social control. In the U.S. and other Western countries, immigrants, as well as some internal migrants “frequently suffer from social, cultural, political, and economic marginalization,” especially when they are members of an ethno-racial minority.⁷⁷ This means that newcomers experience higher rates of unemployment, lower incomes, and often encounter discriminatory barriers to improvement of their standard of living. The experience of such “absolute and relative deprivation... can push some people towards criminal activity.”⁷⁸ Even if migrants are not members of an ethno-racial minority, immigration may be closely linked with economic disadvantage: immigrants themselves may be an economically disadvantaged group, or, they may indirectly contribute to deepening economic disadvantage among natives by altering the labor market.⁷⁹ Unlike the American Great

⁷⁶ While physical distance is an imperfect proxy for socio-cultural distance, it does signal the potential heterogeneity of a population assembled from diverse and far-away origins: one study estimated that in 1966, an average urban in-migrant in Russia migrated 1,457 km (905 miles). NASELENIE ROSSII V XX VEKE: ISTORICHESKIE OCHERKI vol. 3, book 1, 1960-1979, 109 [The Population of Russia in the 20th Century: Historical Outlines, vol. 3, book 1, 1960-1979] (Iurii Poliakov & V. B. Zhiromskaia eds., 2005). And that distance was bound to be greater in Eastern and Northern regions, because these regions had insufficient local rural populations to fuel the continuing rural-to-urban migration. Internal migration over such distances would be virtually impossible in Western Europe. To give some sense for the relative scale of moves within Russia, in the U.S., the median distance of a move in a given year is around ten miles. See Ellickson, *supra* note 10, at 6 (citing Larry Long et al., *Migration Distances: An International Comparison*, 25 DEMOGRAPHY 633, 638 (1988)).

⁷⁷ Scot Wortley, *Introduction. The Immigration-Crime Connection: Competing Theoretical Perspectives*, 10 J. INT’L MIGRATION & INTEGRATION 349, 353 (2009).

⁷⁸ *Id.*

⁷⁹ See Reid et al., *supra* note 39, at 758-64; George J. Borjas, *Immigration and the Economic Status of African-American Men*, 77 ECONOMICA 255 (2010) (arguing that recent immigrants contribute to heightened criminal activity of African-American males by displacing them from the labor market). The inextricable correlation with economic

Migration northward, for example, Soviet population reshuffling did not produce a greater concentration of the poor and unemployed: migration policy was labor-need-driven, and resettlers into labor-deficit areas would not form an unemployed or marginalized population.⁸⁰ Similarly, although overall the Soviet territory experienced a deepening of ethno-cultural heterogeneity in many areas, the ethnic dimension of population change was not met with the same kind of targeted, institutionalized racism that African Americans confronted in the aftermath of the Great Migration, or the kind of directed violence that international migrants frequently encounter across time and place.⁸¹ The consequences of chronic, decades-long population change in Soviet Russia, in other words, are not likely to be confounded by co-occurring ghettoization of the economically dispossessed, nor by the virulent ethnically- or racially based intergroup hostilities.

Finally, the characteristics of Soviet-era migration help avoid another persistent problem in empirical research on the migration-crime relationship, the selection problem.⁸² The problem stems from the possibility that some unobserved characteristics influence both where people choose to live or to relocate and their propensity to engage in criminal behaviors. If less crime-prone individuals tend to move into lower-crime areas, for example, it would be difficult to distinguish such self-selection effects from macro-level disorganization effects. This problem, while not wholly absent, is minimized in the context of Soviet-era migration: because migration decisions were considerably constrained and

disadvantage is also not limited to international migration: all of the accounts of the crime wave following the Great Migration of southern African Americans into northern cities, for example, emphasize the ghettoization of an economically marginalized population. *See, e.g.,* Tolnay *supra* note 16.

⁸⁰ That is, at least not while the command economy survived. The degree to which local economies became unsustainable with the transition to the market, however – and the extent to which local populations experienced material deprivation and economic hardship – did not correlate perfectly with migration patterns. Insofar as such a correlation is present, the statistical analysis below seeks to control for these potential confounding effects.

⁸¹ *See, e.g.,* NICHOLAS LEMANN, *THE PROMISED LAND* 70-107 (2nd prtg. 1992) (describing the interplay between racism and violent crime in 1950s Chicago); DANIEL KANSTROOM, *DEPORTATION NATION: OUTSIDERS IN AMERICAN HISTORY* 110, 156 (2007) (citing evidence of frequent anti-Chinese violence in the late nineteenth century and anti-Mexican mob attacks by native-born Americans in the early twentieth century).

⁸² *See, e.g.,* David S. Kirk, *A Natural Experiment on Residential Change and Recidivism: Lessons from Hurricane Katrina*, 74 *AM. SOC. REV.* 484, 484 (2009); Bernard E. Harcourt & Jens Ludwig, *Broken Windows: New Evidence from New York City and a Five-City Social Experiment*, 73 *U. CHI. L. REV.* 271, 279 (2006); Robert J. Sampson, *How Does Community Context Matter? Social Mechanisms and the Explanation of Crime Rates*, in *THE EXPLANATION OF CRIME: CONTEXT, MECHANISMS, AND DEVELOPMENT* 31, 46-49 (Per-Olof H. Wikström & Robert J. Sampson, eds., 2006).

directed by state planners, individuals were not able to freely self-select into particular areas based on the unobservable individual propensity towards criminal violence.

In sum, communities most marked by coercive settlement in the Stalinist era and subsequent chronic population turnover could not develop a high capacity for informal social control.⁸³ The collapse of the communist regime made these consequences of Soviet rule highly visible, as the task of social control devolved to communities, many of which were ill-equipped to provide it. If state-induced population change disrupted social organization and undermined the development of a capacity for informal social control as I suggest here, then the regions whose development was most profoundly shaped by these processes should be more vulnerable to rampant crime after the demise of communism.

B. Violent Crime & State Dysfunction in Post-Communist Russia

Crime in Russia after the demise of communism and the collapse of the Soviet Union has indeed been rampant. As one, perhaps overly nostalgic account put it, post-Soviet violent lawlessness has “turned what was once an ordered, communal society into a land of fearful strangers.”⁸⁴ While one may justifiably doubt how ordered or communal Soviet society was, a glance at homicide mortality rates suffices to show that Russia, and, to a lesser extent, other successor states to the former Soviet Union have become and remained much more violent than all Western industrialized countries, as well as many non-Western countries.⁸⁵ Post-communist

⁸³ There is evidence that the historic experience of migration influences the social organization and ways of life of Russia’s citizens and communities to this day. *See, e.g.,* Markku Lonkila & Anna-Maria Salmi, *The Russian Work Collective and Migration*, 57 EUROPE-ASIA STUD. 681 (2005) (demonstrating that the social networks of present migrant residents were less robust than those of native-born residents, even if the former migrated decades ago). For evidence that social ties among neighbors in contemporary Russia impact processes of informal social control, *see* Kathryn Hendley, *Resolving Problems Among Neighbors in Post-Soviet Russia: Uncovering the Norms of the Pod’ezd*, 36 LAW & SOC. INQUIRY 388, 412 (2011) (showing that the “absence of any sort of meaningful relationship” among neighbors informal self-regulation via informal conflict resolution).

⁸⁴ Stephen Handelman, *The Russian ‘Mafiya,’* 73 FOREIGN AFF. 83, 91 (1994).

⁸⁵ The latest UN Survey of Crime Trends and Operations of Criminal Justice Systems for which Russia provided information (1998-2000) ranked Russia as the seventh most murderous country of the 70 countries surveyed. The UN Surveys rely on police statistics, while this project relies on vital statistics for the assessment of homicide mortality rates. *See infra* note 98. Total recorded crime, though a more flawed metric than homicide mortality, also increased greatly – by about 60% between 1990 and 2000, with property and drug crimes exhibiting especially explosive growth alongside homicides. *See* Yuri

Russia's homicide mortality rate has been one of the highest in the world, exceeding that of European countries by a factor of 20-25. Its national homicide mortality rate has climbed from an already high rate of just under 10 deaths per 100,000 residents in 1988 to nearly 33 in 1994; it declined somewhat for four years after 1994, only to increase again to about 31 in 2002.⁸⁶ For the sake of comparison, the peak recorded national homicide rate in the United States, reached in 1980, was 10.2.⁸⁷ Contrary to the image one might form on the basis of media coverage – that Russian crime is dominated by Kalashnikov-wielding mafia enforcers and nefarious assassins bankrolled by the former KGB – a lion's share of lethal violence in post-Soviet Russia and throughout the FSU is a result of unorganized and often unplanned actions by ordinary individuals.⁸⁸

Andrienko, V *Poiskakh Obiasneniia Rosta Prestrupnosti v Rossii v Perekhodnoy Period: Kriminometricheskii Podkhod* [In Search of Explanations for the Rise in Crime in Russia During Transition: A Criminometric Approach] 2 EKONOMICHESKIY ZHURNAL VSHE 194, 198 (2001).

⁸⁶ There is consensus among experts that the post-communist increases in death rates from violent causes are real – rather than, for example, an artifact of more honest reporting practices after the collapse of the communist regime. See David A. Leon et al., *Huge Variation in Russian Mortality Rates 1984-1994: Artefact, Alcohol, or What?*, 350 LANCET 383 (1997); D. Wasserman & A. Värnik, *Reliability of Statistics on Violent Death and Suicide in the Former USSR, 1970-1990*, 98 ACTA PSYCHIATRICA SCANDINAVICA (SUPP. S394) 34 (1998). There is also strong evidence that the true rate of death from external, purposeful injury is understated across all regions, which means true rates of homicide mortality have been even higher in the post-communist period than officially recognized. See Natalia S. Gavrilova et al., *Russian Mortality Crisis and the Quality of Vital Statistics*, 27 POPULATION RES. & POL'Y REV. 551 (2008); William Alex Pridemore, *Measuring Homicide in Russia: A Comparison of Estimates from the Crime and Vital Statistics Reporting Systems*, 57 SOC. SCI. & MED. 1343 (2003).

⁸⁷ JAMES ALAN FOX & MARIANNE W. ZAWITZ, U.S. DEP'T OF JUSTICE, BUREAU OF JUSTICE STATISTICS, HOMICIDE TRENDS IN THE UNITED STATES, available at <http://www.bjs.gov/content/pub/pdf/htius.pdf>.

⁸⁸ See, e.g., GENERAL PROCURACY OF THE RUSSIAN FEDERATION, RESEARCH INSTITUTE OF LAW AND ORDER OF THE MINISTRY OF THE INTERIOR OF THE RUSSIAN FEDERATION, SOSTOIANIE I TENDENTSII PRESTUPNOSTI V ROSSIISKOI FEDERATSII [State and Tendencies of Criminality in the Russian Federation] 252 (A. Ia. Sukharev & S. I. Girko eds., 2007) (finding that over 50% of all solved intentional homicides and inflictions of grave bodily harm in 2005 occurred as a result of quotidian interpersonal conflicts among relatives, neighbors, or acquaintances, and 10% of all solved homicides were committed in connection with a dispute over a loan); William Alex Pridemore, *Social Structure and Homicide in Post-Soviet Russia*, 34 SOC. SCI. RES. 732, 734 (2005) (summarizing results of a study of homicides in one region, which found that disputes or arguments were the most common motive for, or characteristic of, registered homicides; concluding that “[t]he number of [organized-crime, targeted] killings is a tiny fraction of the nearly 40,000 homicides in Russia annually . . . and should not be expected to play a role when estimating models to examine the relationship between social structure and homicide.”); see also Valeriy V. Chervyakov et al., *The Changing Nature of Murder in Russia*, 55 SOC. SCI. &

Accounts implicit in much scholarship and media coverage suggest that post-communist lawlessness is part of the price paid for dismantling the police state and doing away with central planning.⁸⁹ With respect to the diminished capacity for state crime control, the demise of a police state and the concomitant disorganization of the law enforcement apparatus severely compromised the new regime's ability to keep order. Foremost among the problems that undermine the Russian state's ability to maintain rudimentary public order on its territories is the ubiquitous corruption of the law enforcement bodies, which takes many forms, from the notorious petty extortion from motorists to the initiation or closing of criminal prosecutions at the behest of organized crime or powerful business interests. The underfunding of the police forces fueled both a flight of qualified individuals able to find employment elsewhere, and a large-scale commercialization of policing, including widespread practices such as moonlighting for pay.⁹⁰ At the same time, the retrenchment of the communist safety net created criminogenic socio-economic conditions: the appearance of mass unemployment, impoverishment, and inequality, drove many to illicit activities, whether out of need and desperation, or because of ample opportunities for easy enrichment. Because of these highly salient characteristics of Russia's history in the 1990s and 2000s, criminal disorder is most often viewed as a reflection of peculiarly *post-Soviet*, rather than historical, realities.

Indeed, in view of these post-Soviet realities, the fact that violence and lawlessness soared probably ought to have been expected. But there are outstanding puzzles about Russia's criminal violence that are not easily explained by reference to economic conditions or state capacity. The geography of lethal violence within the country is one such puzzle. Russia is the world's most territorially expansive state, and it would be odd if

MED. 1713, 1713 (examining a sample of homicides in one region in 1998 finding that murders by hired killers are "a small proportion of the total convicted," although this category of crimes are likely to be underdetected).

⁸⁹ See, e.g., Yury Andrienko, *What Determines Crime in Russian Regions?* (Econ. Educ. & Research Consortium, Working Paper No. 99/252E, 2002); Vladimir Kontorovich, *The Russian Health Crisis and the Economy*, 34 COMMUNIST & POST-COMMUNIST STUD. 221 (2001); Anders Åslund, *Economic Causes of Crime in Russia*, in THE RULE OF LAW AND ECONOMIC REFORM IN RUSSIA (Jeffrey D. Sachs & Katerina Pistor eds., 1997).

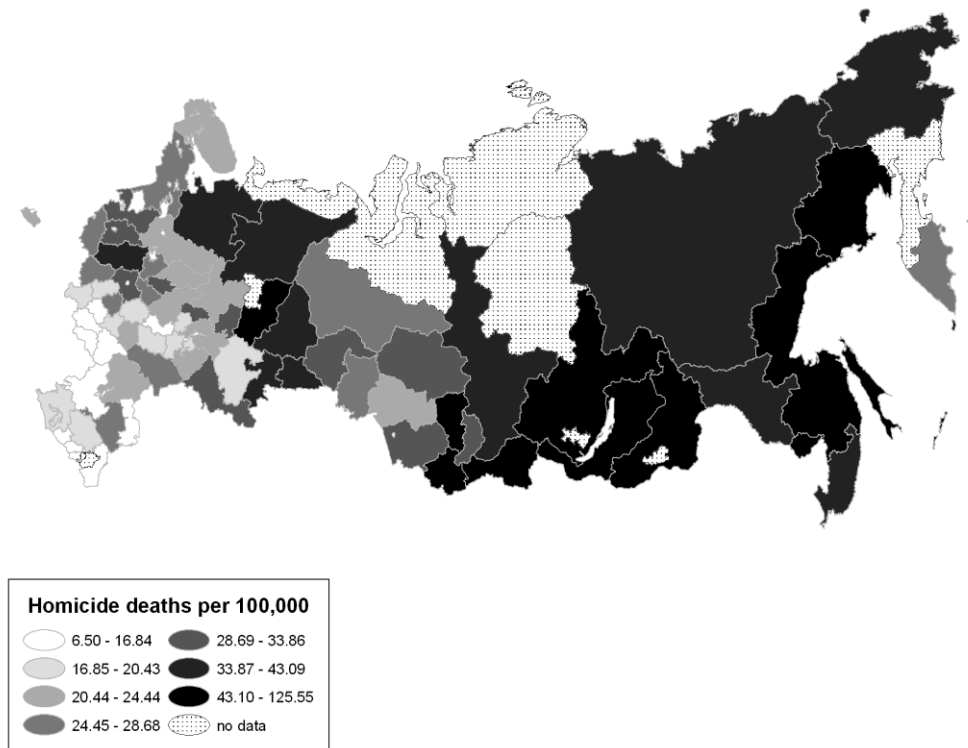
⁹⁰ For scholarly accounts of the problems plaguing post-Soviet law enforcement branches generally, see, e.g., BRIAN D. TAYLOR, STATE BUILDING IN PUTIN'S RUSSIA: POLICING AND COERCION AFTER COMMUNISM (2011); Theodore P. Gerber & Sarah E. Mendelson, *Public Experiences of Police Violence and Corruption in Contemporary Russia: A Case of Predatory Policing?* 42 LAW & SOC. REV. 1 (2008); Peter H. Solomon, Jr., *The Reform of Policing in the Russian Federation*, 38 AUSTRALIAN & NEW ZEALAND J. CRIMINOLOGY 230 (2005).

homicide mortality did not vary within its borders.⁹¹ Even with the expectation of variation, the observed differences in homicide mortality across Russia's sub-national regions leave a strong impression. To cite the extremes, the annual homicide mortality in Voronezh, a region that borders Ukraine, has dropped to as low a level as 4 homicide deaths per 100,000 residents in some years, while the Republic of Tuva, a region that borders Mongolia in southern Siberia, has registered rates over 100 in some years. Multi-year averages (1995-2005), depicted in the map in Figure 1 *infra*, show that the eleven regions that are have the lowest homicide rates such as Voronezh have averaged fewer than 15 homicide deaths per 100,000 residents, while ten of the highest-homicide regions, averaged over 40 such deaths.⁹²

⁹¹ See, e.g., Monkkonen, *supra* note 11, at 78.

⁹² These spatial differences have been stable over time.

Figure 1. Average Annual Homicide Mortality in Russia's Regions, 1995-2005



As will be shown more systematically in the next section, the uneven socio-economic consequences of the transition to a market economy and the uneven capacity of the post-communist state for law enforcement do not fully explain this distribution of homicide. There are, moreover, compelling *a priori* reasons to expect that a more complete account of these differences must reckon with the capacity for informal social control across the regions. After all, one implication of *state's* inability to control criminal violence is that “a people who never learned to trust the state, police, and courts, is once again forced to rely upon its own laws and values.”⁹³ As survey after survey confirms, post-Soviet citizens distrust the state in general, and they distrust its law enforcement and justice system in particular.⁹⁴ Fear and distrust make people unwilling to call upon law enforcement for help, to report crimes, or to cooperate with authorities in criminal investigations and prosecutions. People opt to arrange all matters and solve conflicts privately: in surveys, a large majority reports that they would resort to their family, relatives, and friends for protection, where only a small minority would resort to law enforcement.⁹⁵

In view of these realities, citizens' own willingness to prevent and intervene in conflicts – to step in to break up or mediate a dispute that threatens violence, to check on their neighbors under suspicious circumstances, to confront local drunks or petty criminals, to aid friends in need – may well be the only way to contain criminal violence. For these reasons, how well people are able to manage everyday transactions and solve everyday conflicts, how much they may rely on their fellow citizens for help – in short, how well the multitude of informal social control mechanisms functions – must matter a great deal.

Just as the material conditions and state capacity are uneven across Russia's vast territory, so is the potential of its different peoples for social control over anti-social behaviors. Part of what shaped the disparate potential for informal social control is the experience of state-managed

⁹³ MARK GALEOTTI, *RUSSIAN AND POST-SOVIET ORGANISED CRIME* 5 (2002). See also Vladimir Gelman, *The Unrule of Law in the Making: The Politics of Informal Institution Building in Russia*, 56 *EUROPE-ASIA STUD.* 1021 (2004).

⁹⁴ See, e.g., Levada Center, *Rossiiane ne Doveriayut Pravookhranitelnyim Organam* [Russians Do Not Trust Law Enforcement] (2010); Theodore P. Gerber & Sarah E. Mendelson, *Public Experiences of Police Violence and Corruption in Contemporary Russia: A Case of Predatory Policing?*, 42 *LAW & SOC. REV.* 1 (2008); Michael K. Reynolds, Olga B. Semukhina, & Nikolai N. Demidov, *A Longitudinal Analysis of Public Satisfaction with the Police in the Volgograd Region of Russia 1998-2005*, *INT'L CRIM. JUST. REV.* 18 (2):158-89 (2008); Olga Griaznova, *Russian Residents' Attitudes Toward the Law-Enforcement Agencies*, 45 *RUSSIAN POL. & LAW* 74 (2007).

⁹⁵ See *supra* note 94.

population change described above. In the following section, I offer some empirical evidence consistent with this account for the spatially unequal burdens of lethal violence across Russia's regions.

III. EVIDENCE

This section demonstrates that Russia's regions, whose population structure was most heavily marked by the disruptive processes of population change under the Soviet regime, have in fact experienced higher rates of homicide after the regime's collapse. This analysis shows not only that the expected relationship exists, but that the impact of Soviet-era population change is one of the strongest predictors of regional homicide rates, and one that increases greatly the power of statistical models to explain one of the most puzzling aspects about crime, its variation across space.⁹⁶

A. Data

1. Dependent Variable

The dependent variable in this analysis is average annual homicide mortality for 75 to 77 of Russia's 89 regions, from 1995 to 2005.⁹⁷ In countries with robust vital statistics systems, mortality data is deemed to be a better indicator of the true incidence of purposeful lethal violence than police records.⁹⁸ A death is recorded as a death from homicide or assault, if the underlying cause is an "injury inflicted by another person with intent to

⁹⁶ Edward L. Glaeser et al., *Crime and Social Interactions*, 111 Q. J. OF ECON. 507, 507 (1996) ("[T]he most intriguing aspect of crime is its astoundingly high variance across time and space," furnishing "one of the oldest puzzles in the social sciences"; and "[t]he large intertemporal differences ... are dwarfed by the differences in crime across space."); see also ERIC H. MONKKONEN, *CRIME, JUSTICE, HISTORY* 42 (2002).

⁹⁷ As a result of several administrative reorganizations, the number of Russia's sub-national administrative regions has declined from 89 to 83, with some of the smaller units absorbed into larger contiguous regions. The analysis in this Article relies on a subset of 75 to 77 regions for which data was available and reliable. See Part A.1 of the Appendix for regions omitted from analysis.

⁹⁸ In most countries, mortality data represent more reliably the underlying levels of violent deaths than police records. See Daniel Lederman et al., *Violent Crime: Does Social Capital Matter?*, 50 ECON. DEV. & CULTURAL CHANGE 509, 510 (2002). For a systematic comparison of vital and police statistics in Russia specifically, see William Alex Pridemore, *Measuring Homicide in Russia: A Comparison of Estimates from the Crime and Vital Statistics Reporting Systems*, 57 SOC. SCI. & MED. 1343 (2003).

injure or kill, by any means.”⁹⁹ Figure 1 *supra* shows the distribution of homicide rates across the country.

2. Independent Variables

To capture the overall impact of Soviet state-managed population movements on the regional population structure, I employ a measure of residential tenure that will here be called the population’s “unrootedness.” “Unrootedness” is measured as the share of a region’s residents who are not “native” to – were born outside of – the area they reside, or have resettled to their area of residence within a specified number of years. The relevant area of residence is the Russian *rayon* – an administrative unit of variable sizes, roughly comparable to counties in the United States.¹⁰⁰ Unrootedness is calculated for all regions under analysis as of the last three Soviet-era censuses: 1970, 1979, and 1989.

The 1979 and 1989 Soviet Censuses included a question on whether the respondent has lived in the city or rural area of his current residence since birth. Residential tenure was considered unchanged if the respondent relocated within the same urban or rural area, has left the area for military service, other service or sojourns abroad, or has left for any reason for periods shorter than six months.¹⁰¹ Respondents who were not born in the area of their residence were further asked how long they have resided there, and their answers were aggregated into several length-of-residence categories. For 1979 and 1989 census years, I calculate the total share of the “non-native” population in the region, and the share of relatively “recent settlers” in the total regional population: those who have resettled within the six years prior to 1979, and within the ten years prior to 1989. The 1970 Census did not contain data on whether respondents lived in the area of current residence since birth, but did contain data on the number of residents who had relocated within the last 2 years (i.e. between 1968 and time of census).¹⁰² For the 1970 Census, I calculate only the share of recent

⁹⁹ The World Health Organization assesses the quality of Russian mortality statistics to be good, with 100% completeness of coverage. See Colin D. Mathers et al., *Counting the Dead and What They Died From: An Assessment of the Global Status of Cause of Death Data*, 83 BULL. WORLD HEALTH ORG. 171 (2005).

¹⁰⁰ Urban *rayons* were designed to be comprised of 100,000 residents at the time of formation in the 1920s, but their sizes diverged considerably as the human geography changed.

¹⁰¹ See Part A.2 of the Appendix.

¹⁰² The 1970 Census contains data for fewer regions (73) than the later Censuses (77). Specifically, it does not cover several subjects of the Russian Soviet Federative Socialist Republic, which are included in later Censuses: Adygeia, Karachai-Cherkessia, Altai Republic, Khakassia, Jewish and Chukchi Autonomous Okrugs.

settlers – in this case, those who have resettled within two years prior to the census.¹⁰³

What these indicators capture most directly is the degree of population instability across regional communities in the latter decades of the Soviet century. As suggested in Part II *supra*, the volume of population turnover in these decades was a consequence of the extent to which state coercion and command played a part in populating a particular area earlier. Thus, higher levels of unrootedness imply not only greater migratory turnover in the 1960s, 1970s, and 1980s, but also more coercive patterns of development and settlement between the 1920s and 1950s. A population's unrootedness, though a syntactically inelegant term, is conceptually apt in this context: it connotes the lack of strong roots to the community and weak social integration, which were bound to result from the kinds of demographic processes that shaped Russia's communities.

It is important to emphasize that "non-native" population *in* the region does not mean the population is not native *to* that region, because these data capture both intra- and interregional moves across *rayon* boundaries.¹⁰⁴

It is worth noting too, that unrootedness is *not* an accurate measure of the concentration of crime-prone individuals in the regions. While it is true that Soviet planners coercively developed previously under-populated areas using forced prison labor and many former convicts remained in those areas, high migratory turnover does not simply correspond to greater shares of former convicts in regional populations. The claim that unrootedness is not simply capturing the concentration of "hardened criminals"¹⁰⁵ in the

¹⁰³ The differences in the number of years within which arrivals fall into the "recent arrivals" category are due to differences in what the three Censuses reported, but have no substantive significance. It is worth noting for comparative purposes that this set of indicators captures a *greater* share of total moves than any measure of the foreign-born population employed in studies of the immigration-crime relationship, but a *smaller* share of total moves than a typical measure of residential instability, which includes shorter distance moves.

¹⁰⁴ It is likely that people making interregional moves find it more difficult to integrate into the social order of their new communities than those making intraregional moves, and it is likely that a higher share of interregional migration into a region is more destabilizing than intraregional moves. As explained in Part II, migrants into areas of newer settlements tended to arrive from further origin points than migrants into more historically established areas in Russia's core. *See supra* note 76 and accompanying text. Thus, regions of newer settlement, which have the highest total non-native population shares also tended to have higher shares of longer-distance moves: if anything, these indicators underestimate the differences in social disruption created by state-managed migration in areas with highest levels of unrootedness as compared with those with the lowest.

¹⁰⁵ Yuri Andrienko & Louise Shelley, *Crime, Violence and Political Conflict in Russia*, in UNDERSTANDING CIVIL WAR: EVIDENCE AND ANALYSIS, VOLUME 2: EUROPE, CENTRAL ASIA, AND OTHER REGIONS 90 (Paul Collier & Nicholas Sambanis eds., 2005) (suggesting

regional population may be supported by considering the relationship between unrootedness and a proxy measure of the size of the “hardened-criminal” population. There is no direct way to count the latter population; but, the number of registered crimes committed by repeat offenders is an adequate proxy.¹⁰⁶ At most, there is only a weak correlation between the unrootedness indicators and the number of crimes committed by repeat offenders in the early post-communist years (1990-1994) adjusted by the population: the coefficient of correlation ranges between .1 and just over .3, and even that level of correlation tends to be insignificant.¹⁰⁷

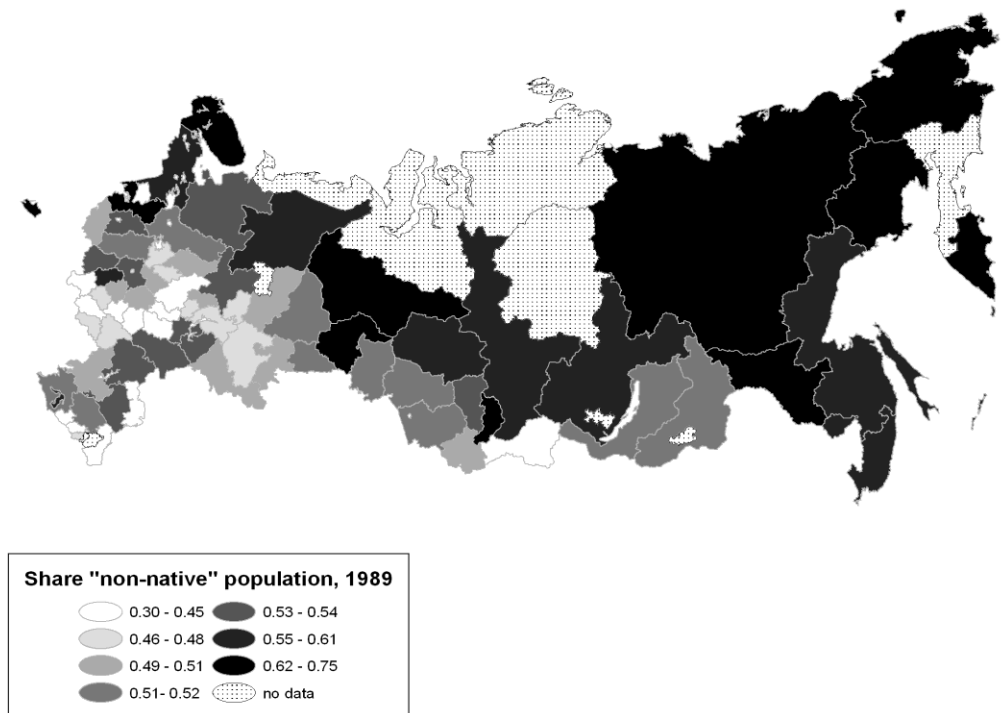
Unrootedness indicators vary considerably across Russia’s regions: in 1989, regions range from 30% to 75% “non-native” population, and 12% to 47% of recent settlers; in 1979, the ranges are from 31% to 78% “non-native” and 10%-45% recent; and in 1970, between 3% and 23% are recent settlers. Consistent with the historical overview above, there is great temporal continuity in patterns, with the correlation among all the available indicators across census years being very high, ranging between 0.8 and .97. Mapping these indicators (Figure 2 *infra* shows the distribution of the 1989 “non-native” population shares) reveals a geography that closely resembles the variation in homicide rates depicted in Figure 1 *supra*: both maps are defined by a similar, rough West to East gradient of increasing values on their respective indicator.

that some cities in less desirable locations in the Urals, Siberia, and the Far East continue to harbor to this day “very large numbers of hardened criminals who continued to commit very serious crimes”).

¹⁰⁶ That is, the number of all registered crimes determined by the police to have been committed by repeat offenders, per 100,000 residents, reported by the Federal State Statistics Service (available at www.gks.ru).

¹⁰⁷ I.e., pairwise correlation coefficients between every pairing of an unrootedness indicator and the number of crimes committed by repeat offenders per 100,000 residents range between .1 and .33, and even that degree of correlation is at statistically insignificant levels ($p > 0.05$) for some pairs.

Figure 2. "Non-native" Population in Russia's Regions, 1989



3. Control Variables

The sheer correlation between Soviet-era population change and post-Soviet homicide rates is high, ranging between .5 to over .6 for all unrootedness indicators.¹⁰⁸ In the more systematic analysis below, I control for a host of potentially confounding factors to address the risk of omitted variable bias controls. Potential determinants of interregional crime disparities include economic and material conditions in the regions, the regional capacity for law enforcement, and several other socio-demographic structural factors. A more detailed description of the data employed in the regression analysis, as well as the logic behind the inclusion of the chosen variables, is set out in Part A.2 (with variables summarized in Table 2) of the Appendix. Here I offer just the list of factors controlled for: inequality; unemployment; poverty; a regional wealth factor (based on income and GDP per capita), and the square of that factor¹⁰⁹; the contraction in regional industrial volume as the command economy yielded to the market; the crime clearance rate; incidence of divorce as a measure of familial disruption; urbanization level in the region; the share in the population of the violence-prone and victimization-prone young male cohort (15-30 years of age); and the rate of deaths from alcohol poisoning as a proxy for heavy alcohol consumption. All of these factors are identified in the literature as important determinants of spatial disparities in homicide or violent crime rates. Thus, to guard against the possibility that the unrootedness–homicide relationship is confounded by historically-developed patterns of material deprivation, economic development, socio-demographic development, or state capacity for crime control, I include these variables in the regression analysis that follows.

¹⁰⁸ Regressing the homicide rates on each of the five measures of population unrootedness only, without controlling for potential confounders, shows not only a positive and significant relationship, but also that the unrootedness indicators account for between 27% and 47% of the variation in (the natural log of) homicide rates. *See* Table 3 in Part B of the Appendix.

¹⁰⁹ A squared term is included because exploratory graphic analysis reveals that the relationship between homicide rates and regional wealth is closer to a quadratic rather than a linear one. This is consistent with at least one past study of homicide rates within Russia. Elena Andreeva, *Mortality Due to External Causes of Death in the Russian Federation: Spatial Aspects and Explanatory Models* 153 (Dec. 20, 2005) (unpublished doctoral dissertation, Technischen Universität Berlin) (*available at* <http://opus.kobv.de/tuberlin/volltexte/2006/1213/>).

B. Empirical Strategy

Inferential analysis of cross-sectional homicide disparities must always reckon with the potential of reverse or simultaneous causation among the outcome and the explanatory variables. This is of particular concern when the explanatory variables are measured during the same time period – e.g., same year – as the homicide rate. Focusing on historically prior unrootedness minimizes the risk of confounding reciprocal effects of homicide on population change, in a way that focusing on coincident indicators of migration, for instance, does not: while current homicide rates could stimulate migration out of an area, they cannot affect past population movements.

However, the potential problem might remain for the control variables. It has been suggested that most of the commonly identified determinants of crime disparities may be affected by high crime rates as well.¹¹⁰ To minimize such confounding effects insofar as data availability permits, I focus on region-specific characteristics that are temporally prior to the observations on the dependent variable.¹¹¹ Specifically, homicide mortality is averaged over the 1995 to 2005 period, and most of the explanatory variables are averaged over the available years between 1990 and 1994.¹¹² The indicator for the collapse of industrial volume from 1984 to 1994 is a single value for each region, measured prior to the observed homicide rate from 1995-2005. Because no reliable estimates of poverty or inequality are available at the regional level prior to 1994 and 1995 respectively, I employ single-year values of the earliest available measure for each of the two variables.

OLS multivariate regressions, with heteroskedasticity-consistent standard errors,¹¹³ are used to estimate the partial effects of each unrootedness indicator on post-1995 homicide rates.¹¹⁴

¹¹⁰ For example, if victims are concentrated among the poorest classes, high violent crime rates may deepen impoverishment by reducing the ranks of working-age adults, harm economic productivity by creating an inhospitable climate for entrepreneurial activity, and, in cases of extreme violence, “alter the urban structure of the country and even its age composition.” Pablo Fajnzylber et al., *What Causes Violent Crime?*, 46 *EUR. ECON. REV.* 1323, 1333 (2002).

¹¹¹ Temporal sequencing is not a perfect solution, in view of the possible serial correlation in the data. As noted, at present, this is the least worst approach given data availability.

¹¹² It is worth noting, especially in the volatile early post-Soviet context, the non-trivial advantage of using averages over several years on data employed here: averaging moderates the impact of outlying observations, which are liable to occur either from exogenous shocks or measurement error.

¹¹³ Heteroskedasticity-consistent (“HC3”) standard errors have been demonstrated to produce consistent estimates in the presence of heteroskedasticity and in samples of fewer than 250 observations. J. Scott Long & Laurie H. Ervin, *Using Heteroscedasticity*

C. Results

The results of the regression analysis are presented and discussed below. Table 1 shows the estimated coefficients on all variables included in specifications 1, 2, and 3: model 1 includes only the conventional social, economic, demographic, and legal variables thought to drive spatial disparities in violent crime rates; model 2 adds to those the proxy for alcohol abuse; and model 3 adds the latest indicator of unrootedness – the share of the “non-native” population in the region as of 1989. Table 2 then presents the estimated coefficients on each of the other unrootedness indicators from 1989, 1979, and 1970 – when each is employed instead of the 1989 non-native population share in turn. All the models in Table 2 also include the same set of control variables, which are not reported for reasons of compactness.

Consistent Standard Errors in the Linear Regression Model, 54 AM. STATISTICIAN 217 (2000).

¹¹⁴ The estimated equation, thus, is as follows:

$$\begin{aligned}
 Y_{i,95-05} = & \alpha + \beta_1 (\% \text{ young - males})_{i,90-94} + \beta_2 (\text{urbanization})_{i,90-94} + \beta_3 (\text{crime - clearance})_{i,90-94} \\
 & + \beta_4 (\text{industrial - collapse})_{i,94} + \beta_5 (\text{wealth})_{i,90-94} + \beta_6 (\text{wealth})_{i,90-94}^2 + \beta_7 (\text{unemployment})_{i,92-94} \\
 & + \beta_8 (\text{poverty})_{i,94} + \beta_9 (\text{gini})_{i,95} + \beta_{10} (\text{divorce})_{i,90-94} + \beta_{11} (\text{alcoholism})_{i,90-94} + \varepsilon_i
 \end{aligned}$$

Where i denotes region, $Y_{i,95-05}$ is the natural logarithm of the homicide rate, averaged over the 1995-2005 period, and each of the independent variables is either averaged over the period of years indicated in the subscript or is a single-year value for the year indicated in the subscript -- with the exceptions of industrial collapse, which is measured in 1994 relative to a 1984 baseline, and the unrootedness variables, which are measured as of 1979 or 1989, and ε is the error term. The equation estimated for the first model excludes alcoholism and unrootedness, and the equation for the second model excludes unrootedness.

Table 1. OLS Regression of Logged Avg Homicide Rate, 1995-2005¹¹⁵

Predictors	[1]	[2]	[3]
		coef. (s.e.)	
			4.104**
“non-natives” in 1989			(1.22)
		0.320***	0.215**
alcohol poisoning		(0.08)	(0.08)
divorce incidence	0.007	-0.046	-0.194*
	(0.09)	(0.07)	(0.08)
wealth factor	0.289	0.153	0.225
	(0.16)	(0.13)	(0.12)
squared wealth factor	-0.1	-0.038	-0.07
	(0.05)	(0.05)	(0.05)
% males 15-39	0.072	0.074	0
	(0.06)	(0.05)	(0.05)
% urban population	-0.004	-0.002	0.001
	(0.01)	(0.01)	(0.01)
crime clearance rate	-0.003	-0.004	0.005
	(0.01)	(0.01)	(0.01)
industrial volume contraction	0.063	0.196	-0.364
	(0.57)	(0.55)	(0.52)
unemployment	-0.001	-0.01	0.011
	(0.06)	(0.04)	(0.03)
poverty	-0.003	0.009	0.004
	(0.01)	(0.01)	(0.01)
inequality	-0.358	0.557	0.312
	(1.19)	(0.88)	(0.83)
R-squared	0.309	0.506	0.616
Dfres	64	63	62
N	75	75	75
F-test for insignificant coefficients			
	<i>F</i>	0.37	1.77
	<i>p</i>	0.93	0.08
		0.73	0.66

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. All regressions carried out with heteroskedasticity-consistent (hc3) standard errors. Constants are not reported. The F and p-values are reported for joint significance of all covariates whose estimated individual effect was indistinguishable from zero at the 10% level.

¹¹⁵ The size of the regional population may be a source of error variance across observations, which is commonly addressed with appropriate weights. See, e.g., Julie Berry Cullen & Steven D. Levitt, *Crime, Urban Flight, and the Consequence for Cities*, 81 REV. ECON. & STAT. 159 (1999). As a robustness check, all models are re-estimated using weighted least squares, weighting the observations by regional population as an alternative way to adjust for heteroskedasticity. As expected the coefficients, which are unaffected by the distribution of errors, are virtually identical to those obtained from OLS estimates with HC3 errors, and the standard errors are smaller (results not reported for compactness).

Table 2. OLS Regression of Logged Average Homicide Rate, 1995-2005

Predictors	[4]	[5]	[6]	[7]
	coef. (s.e.)			
recent settlers in 1970	13.406*** (2.85)			
“non-natives” in 1979		4.393*** (0.86)		
recent settlers in 1979			7.498*** (1.32)	
recent settlers in 1989				6.095** (1.91)
R-squared	0.681	0.687	0.701	0.616
Dfres	58	62	62	62
N	71	75	75	75
F-test for insignificant coefficients				
<i>F</i>	0.92	0.81	1.71	0.73
<i>p</i>	0.5	0.6	0.13	0.66

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$. All regressions carried out with heteroskedasticity-consistent (hc3) standard errors. All regressions include the same set of covariates included in model 3 in Table 1 *supra*, coefficients not reported. Constants are not reported. The F and p-values are reported for joint significance of all covariates whose estimated individual effect was indistinguishable from zero at the 10% level.

1. Discussion

The first model [1] reported in Table 1 includes only the variables commonly identified as capturing the economic and material conditions, the state capacity for crime control in the regions, as well as demographic structure and familial stability. Under this specification, none of the commonly emphasized determinants of spatial variation in violent crime have a statistically discernible individual effect on average post-Soviet homicide rates.¹¹⁶ Model 2 includes, in addition to all the explanatory

¹¹⁶ At the 10% level, however, the wealth factor and its square have a statistically significant relationship with homicide rates. An F-test for joint significance fails to reject the hypothesis that all the covariates included in the model have no effect on the dependent variable. It is worth noting that a model that includes all of these variables (model 1) explains a *lower* share of the variation in the dependent variable (an R-squared of .309, explaining 30.9% of the variation) than all but one of the bivariate regression models of homicide rates on *unrootedness only* (ranging between an R-squared of .27 to .47), reported in Table 3, Part B of the Appendix.

variables of Model 1, the proxy measure for heavy alcohol consumption. As expected, the prevalence of alcoholism has a significant effect on homicide rates and it increases the explanatory power of the model to about 51%.

Models 3 on Table 1, and 4 through 7 on Table 2 lend support to the central argument forwarded here: they show that each measure of population unrootedness is significantly and positively correlated with the homicide rate. Including indicators of historic population unrootedness, moreover, improves the explanatory power of the model considerably.¹¹⁷ The estimated coefficients for each of the unrootedness indicators are positive and significant at the 1% level.

The relative weakness of the estimated effects of the factors commonly emphasized as influencing violent crime rate disparities¹¹⁸ is broadly consistent with the results of the small number of existing cross-sectional or panel-data analysis of violent crime in post-communist Russia: aside from the invariability of the alcohol-homicide relationship, there are few consistent findings across these studies, with results being sensitive to choice of data and method.¹¹⁹

¹¹⁷ The share of the variation in regional homicide rates that is explained by Model 6, for example, is about 70%, or an increase of 19 percentage points from an otherwise identical model that excluded unrootedness. Results and improvements to explanatory power are consistent whether recent settlers as of 1970, non-natives as of 1979, recent settlers as of 1979, non-natives as of 1989, or recent settlers as of 1989 are employed as a measure of the regional population's unrootedness. Although R-squared is expected to increase with the addition of more explanatory factors, the contribution to the explained variation of unrootedness indicators is greater than that of any other individual indicator except for the alcohol poisoning rates (analysis not shown for reasons of compactness).

¹¹⁸ The estimated coefficients on some of the control variables are significant at conventional thresholds (5% or less) in some specifications (not shown), but no relationship is stable across all specifications with the exception of the alcohol abuse proxy. Consulting variance inflation factors (VIFs) suggests that the insignificant effects are not due to multicollinearity among the remaining covariates. High VIFs indicate that two or more variables are highly correlated, which may inflate the standard errors around coefficient estimates; here, VIFs for each specification are below the conventional thresholds for critical multicollinearity levels, i.e. not exceeding 10 for any individual variable, and not exceeding 4 on average. This conclusion is supported by the tests for joint significance: in models 3 through 7, all covariates whose individual effect was indistinguishable from zero are also jointly insignificant (see F-test statistics in Tables 1 and 2).

¹¹⁹ Compare William Alex Pridemore & Sang-Weon Kim, *Democratization and Political Change as Threats to Collective Sentiments: Testing Durkheim in Russia*, 605 ANNALS AM. ACAD. POL. & SOC. SCI. 82, 92 (2006) (finding no relationship between regional poverty levels and homicide rates in 2000), with Pridemore, *supra* note 88, at 743-44 (finding a relationship between regional poverty levels and 1995 homicide rates). Compare Andrienko & Shelley, *supra* note 105 (finding a positive relationship between inequality and homicide using panel data), with Pridemore, *supra* note 88, at 743-44

Importantly, all existing studies based on cross-sectional or panel data confirm the considerable residual effect of spatial or region-specific factors that are not captured by the explanatory variables examined in each study.¹²⁰ That is, after accounting for the commonly used indicators for the strength of the state's apparatus for crime control, the economic factors that shape individual incentives for towards criminal activity, as well as a host of pertinent socio-economic indicators, variables that are intended to capture further geographic differences – such as geographic coordinates or regional dummy variables – remain reliably significant.¹²¹ In these studies, controlling for climate, location, or past homicide rates makes statistical models better fit the data and reduces the fraction of the error variance due to unobserved regional effects. However, “controlling for” territorial differences in this way and diagnosing the sources of these differences is not quite the same thing. My analysis suggests that the uneven burden of past state-managed population change is at least one of the sources of the durable differences in homicide mortality across Russia's regions.¹²²

(finding no statistically discernible relationship between inequality and homicide). Compare Andreeva, *supra* note 109, at 134-35 (finding higher incomes per capita to be associated with higher homicide rates in panel-data analysis), with Andrienko & Shelley, *supra* note 105 (finding no statistically discernible relationship with real incomes per capita).

¹²⁰ Andrienko's analysis of panel data on violent crime finds that even after accounting for the effect of law enforcement capacity and all the standard “socio-economic-demographic indicators . . . latitude and longitude continue to be significantly positive for homicide rate, reflecting other unobserved . . . differences among the regions (like climate, daytime, and possibly culture, traditions, norms, etc).” Andrienko, *supra* note 89, at 25. Andreeva's random-effects model on panel data finds that region-specific effects are statistically significant, even after controlling for a large set of variables. Andreeva, *supra* note 109, at 134. Similarly, Pridemore's cross-sectional analysis of homicide mortality shows a significant association with regional dummy variables for Northern Caucasus and areas East of the Urals, even after controlling for a set of socio-economic variables. Pridemore, *supra* note 88, at 733. Indeed, Pridemore suggests that this may be due to, *inter alia*, “longstanding differences resulting from Soviet economic and social policies, [and] the disparate histories of many regions.” *Id.*

¹²¹ Pridemore, *supra* note 88, at 748. Similarly, in dynamic models, persistence over time is also found to be one of the strongest significant determinants, indicating that differences among regions with respect to homicide or violent crime are stable overtime, and thus, likely to stem from durable rather than epiphenomenal regional conditions. See Andrienko & Shelley, *supra* note 105, at 102; Andrienko, *supra* note 85, at 212; Andrienko, *supra* note 89, at 22.

¹²² One may ask whether the unrootedness-homicide relation remains robust after controlling for *further* unobserved regional or spatial effects, and whether any such effects remain after including the unrootedness indicators. In further analyses summarized in the Part C of the Appendix, I find that explicitly modeling spatial processes or controlling for other undiagnosed sources of the spatial variation does not alter the relationship between unrootedness and homicide rates found here.

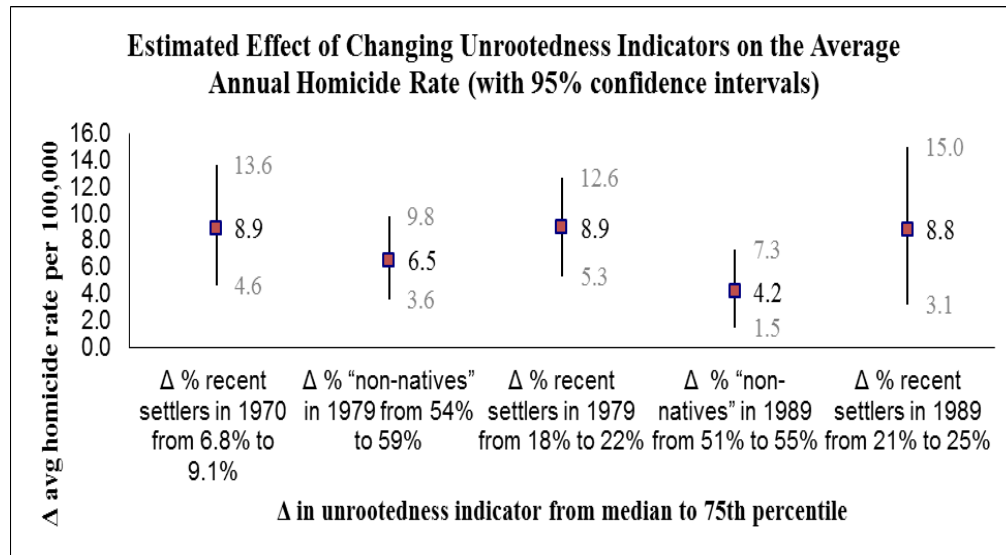
2. How Much Did a History of State-managed Migration Matter?

Regression coefficients do not clearly communicate the strength or magnitude of the estimated relationships. Simulations may offer a clearer, easier to understand picture.¹²³ A simulation demonstrates the effect of changing the value of some explanatory variable – here, of each unrootedness indicator – on the outcome variable – here, the homicide rate, while holding other explanatory variables constant, and taking into account the uncertainty in estimating relationships between any variables in a set of finite, relatively small number of observations.¹²⁴ Figure 3 below illustrates the simulated effects on the average annual homicide rate of increasing unrootedness from its median to 75th percentile value, holding all other variables at the median.¹²⁵

¹²³ All simulations are executed using CLARIFY: Software for Interpreting and Presenting Statistical Results by Michael Tomz, Jason Wittenberg, and Gary King, version 2.1, Jan. 5, 2003. See Gary King, Michael Tomz, & Jason Wittenberg, *Making the Most of Statistical Analyses: Improving Interpretation and Presentation*, 44 AM. J. POL. SCI. 347 (2000) (describing the techniques implemented in a set of Stata macros in CLARIFY).

¹²⁴ This is done by making 1,000 draws from a sampling or posterior distribution of quantities estimated in Models 3 through 7 above ($\hat{\beta}$ and $\hat{\alpha}$), to capture estimation uncertainty in the parameter estimates.

¹²⁵ To be more precise, the simulation algorithm used here generates the expected value of the average annual homicide rate for a hypothetical “median” region by setting all explanatory variables at their median values (and the squared wealth factor at the squared value of the median wealth factor). This expected value is generated for models 3 through 7. Then, the unrootedness variable in each model is changed from its median value to its 75th percentile value (i.e., relatively high), and the expected value of the average homicide rate is re-estimated. The difference in the expected values generated in the first and second rounds of simulation is the estimated effect of having had an historically unrooted population that is in the 75th percentile, compared to the 50th percentile.

Figure 3. Simulated Effects of Unrootedness on Homicide Rates

Note: Squares denote the point prediction for the effect of changing each unrootedness indicator from its median to 75th percentile value; lines indicate the 95% confidence interval around the point prediction. All other explanatory variables are held constant at their median values, and the squared wealth factor held as the squared value of the median wealth factor.

Figure 3 conveys that the estimated effect is considerable. Of two otherwise identical, hypothetical “median” regions, the region where 9.1% of its residents have resettled in the area within two years of 1970 would have experienced on average 8.9 additional homicide deaths per 100,000 residents after the collapse of the USSR, by comparison with a region with 6.8% of such recent settlers. For a region the size of Moscow Oblast,¹²⁶ this difference would translate into approximately 44 properly classified additional homicide deaths each year. A region that had 59% of its population residing outside their place of birth in 1979 would have experienced on average 6.5 more homicide deaths per 100,000 years after the collapse of the USSR, by comparison with a region with 54% of such “non-native” population. A region that had 22% recent settlers in 1979 would have experienced 8.9 more homicides per 100,000, on average, compared to an otherwise identical region with 18% recent-settler population. Finally, the region with 55% of its population born outside of their area of residence as of 1989 would have experienced on average 4.2 additional homicide deaths per 100,000 residents, by comparison with a

¹²⁶ The population of Moscow oblast has been between 6.5 and 7 million in the time period under analysis; it does not include the city of Moscow.

region with 51% of that population, and a region with 25% rather than 21% of recent settlers as of 1989 would experience on average 8.8 additional homicide deaths per 100,000.

The stability and strength of the relationship between historic state-managed population change and homicide may be suggestively contrasted with the mixed evidence regarding the relationship between *post*-communist migration and homicide investigated by other researchers. Existing empirical analyses of contemporaneous migration and violent crime in the Russian context show ambiguous results.¹²⁷ For example, one cross-sectional analysis suggests that migration into and within a region does not contribute significantly to explaining cross-regional variation in homicide rates.¹²⁸ Another study that investigated the influence of net migration flows on different types of violent and property crimes, using regional panel data for the 1990s, reached no definitive conclusions.¹²⁹ There is then, at least reason to believe that migrations more heavily managed by the party-state had different, more disorganizing consequences than migrations subject to lesser constraints of that sort.¹³⁰

In short, this analysis suggests that the historical roots of Russia's homicide geography in the 1990s and 2000s are to be found in part in the demographic processes that created Russia's many subnational communities. The exact causal mechanism that I suggest links population movements and homicide rates – the capacity for informal social control – must remain unmeasured, largely because of the unavailability of any reasonable, aggregate-level, direct indicators of that capacity. Although the demonstrated link between migrations and homicide cannot yield unambiguous causal inferences, the findings are consistent with the core claims put forth in this article: state-directed, socially disruptive migration

¹²⁷ Disentangling the relationship between population movements that are by and large contemporaneous with homicide rates is a more fraught empirical task, which counsels against excessive reliance on any single attempt. Nonetheless, the absence of stable findings is at least worth noting.

¹²⁸ See Pridemore, *supra* note 88, at 744.

¹²⁹ Andrienko & Shelley, *supra* note 105. They find that net migration is negatively and significantly related to male homicide mortality, positively and significantly related to female homicide mortality and registered homicides, and negatively and insignificantly related to total homicide mortality. The authors do not offer an extended interpretation of these ambiguous findings.

¹³⁰ It should be noted that post-communist migration within Russia is not wholly unconstrained, and thus cannot be confidently contrasted with Soviet-era patterns. While post-communist migration has been less subject to purposeful state control, considerable barriers to free migration remain. See, e.g., Stephen Wegren & A. Cooper Drury, *Patterns of Internal Migration During the Russian Transition*, J. COMMUNIST STUD. & TRANSITION POL., Dec. 2001, at 15, 18-20 (2001).

erodes the social capacity for informal control over violence, and areas whose development is most marked by these migration processes become more susceptible to high rates of violence.

IV. CONCLUSION: IMPLICATIONS OF THE RUSSIAN EXPERIENCE

Although idiosyncratic in several ways, the Russian experience yields generalizable implications for our understanding of the relationship between population movements and violent crime. Soviet Russia's geography of migration produced a present geography of criminal violence because migration profoundly disrupted the existing social ties and networks that hold societies together and make communities more than a collection of atomistic individuals. Social networks were disrupted by Soviet population movements because these movements were managed by the state, because their scale comprehensively changed the country's human geography, and because state-managed migrations persisted over nearly seven decades, disproportionately affecting certain regions. The Russian experience, when taken alongside existing findings on the relationship between migration and crime, helps us identify the kinds of migration events and the kinds of state policies bearing on population movements that present a high risk of social disruption.

First, the Russian experience supports the notion that population movements that break up social ties and networks will tend to form – or leave behind – communities with a lower capacity for informal social control over violence. By contrast, as the scholarship on recent immigration into the US suggests, migration streams which more closely approximate the predictions of cumulative causation theory are not likely to have the same effects. It is worth emphasizing that the distinction between migrations that undermine public order and those that do not is *not* a distinction between interstate and internal migration. While many of the nativist fears about the “criminal immigrant” hinge on the migrants' foreign national identities, the Russian experience serves as another demonstration that migration within national borders may be more disruptive to the social fabric and the public order than interstate migration.

More importantly, the Russian experience suggests that mobility-management measures that interfere heavily with the network-driven character of uncoerced, unconstrained migration create a high risk of social disruption. States' attempts to control population mobility may well fuel violent crime more than the very migration they seek to control. Russia's

communist-era experience was certainly extreme,¹³¹ and no contemporary policy adopted by a Western democratic government is likely to rival Soviet policies in the extent of desired control or its methods. But it is also imprudent to think that *no* consequences would follow from even lesser, and less comprehensive, controls over mobility. The consequences of such measures for the social capacity for self-regulation should be taken into account in particular when two broad kinds of laws are contemplated: policies of selective inclusion or exclusion, and, to borrow Todd Clear's term, policies of "coercive mobility."¹³² Both kinds of policies are particularly problematic when their demographic effects are spatially concentrated.

A. *Selective Exclusion Policies*

All immigration laws must selectively include some potential migrants and exclude others. Not all bases for inclusion or exclusion are equal, however, with regard to the likely public order consequences: some exclusion or inclusion criteria do not easily accommodate, or outright prevent, network-driven migration and settlement. To see how some exclusion criteria distort the process of migratory demographic change, consider a historic example. The Chinese Exclusion Acts restricted further Chinese in-migration, thereby distorting the patterns of migration that would have otherwise occurred, effectively cutting off network-based migration.¹³³ These measures kept Chinese women from joining the overwhelmingly male migrants and constituting families, the most elementary unit in any social organization.¹³⁴ This policy produced dramatically high male-to-female ratio in American Chinese communities.¹³⁵ Gender imbalances, combined with the unavailability of interethnic marriage, prevented the formation of normal social ties that

¹³¹ In combination with dysfunctional state crime control apparatus, that may help to explain why "no literate and urban society in the modern world faces a risk" of violent death, including homicide, comparable to Russia's, Nicholas Eberstadt, *Drunken Nation: Russia's Depopulation Bomb*, *WORLD AFF.*, Spring 2009, at 51, 59.

¹³² Clear, *supra* note 33, at 34.

¹³³ See DAVID T. COURTWRIGHT, *VIOLENT LAND: SINGLE MEN AND SOCIAL DISORDER FROM THE FRONTIER TO THE INNER CITY*, 152-69 (1996).

¹³⁴ See *id.* Courtwright argues, likewise, that criminal disorder attended other settings where migrant populations were composed predominantly of single males. However, this disorder subsided without constraints on mobility and settlement –with the passage of time, women arrived, allowing the formation of families and stable social ties.

¹³⁵ Gender ratios reached about 27 men to 1 woman in 1890. *Id.* at 158.

would incorporate Chinese laborers, and magnified the problem of criminal violence in America's Chinatowns.¹³⁶

Selective-exclusion policies that stunt the development of social networks are not entirely a product of yesterday's racism or xenophobic nativism.¹³⁷ In particular, socially disruptive effects may be fostered by some guest-worker programs. To ensure that such migration is temporary, states typically impose restrictions on long-term residence and family reunification. These restrictions also limit the extent to which network-driven processes shape demographic change. We should foresee then, the likelihood that areas hosting large volumes of temporary migrants over long periods of time would be characterized by weaker social ties and a lower capacity to resist criminal violence.¹³⁸

Arguments about the social costs of relying on temporary labor migration programs are not new.¹³⁹ The dominant criticisms of temporary

¹³⁶ *Id.* at 169. To be sure, problems with criminal violence in areas with high concentrations of Chinese migrants predated the Exclusion Acts. See, e.g., Kevin R. Johnson, *Race, the Immigration Laws, and Domestic Race Relations: A "Magic Mirror" into the Heart of Darkness*, 73 IND. L.J. 1111, 1120 (1998). That violence, however, was predominantly perpetrated by natives against Chinese migrants. See, e.g., ROGER DANIELS, *ASIAN AMERICA: CHINESE AND JAPANESE IN THE UNITED STATES SINCE 1850* 58-66 (1988) (describing anti-Chinese violence on the West Coast during this period). Cutting off further Chinese in-migration exacerbated violent crime among the Chinese migrants as well.

¹³⁷ Nor is this meant to suggest that racism and nativism with regard to immigrants are yesterday's phenomena. For treatments of these attitudes in recent immigration policies, see, e.g., Johnson, *supra* note 136, at 1131-47; Bill Ong Hing, *Reason over Hysteria*, 12 LOY. J. PUB. INT. L. 275 (2011).

¹³⁸ At least one empirical study found some suggestive evidence for this claim. See James P. Lynch & Rita J. Simon, *A Comparative Assessment of Criminal Involvement among Immigrants and Natives across Seven Nations*, 9 INT'L CRIM. JUST. REV. 1 (1999). Lynch and Simon find a correlation between more restrictive immigration regimes, which relied more heavily on guest-worker programs, and greater immigrant involvement in crime across seven Western nations. The authors suggest that restrictive guest-worker programs operated to "lure young males (a high offending group) but make it difficult for them to marry or to attain permanent residence," which "foster[s] higher crime and incarceration rates for immigrants relative to the native-born." *Id.* at 14.

¹³⁹ See, e.g., Philippe Fargues et al., *Shared Challenges and Opportunities for EU and US Immigration Policymakers*, 2011 EUR. U. INST. & MIGRATION POL'Y INST. 7, available at <http://www.migrationpolicy.org/pubs/US-EUimmigrationsystems-finalreport.pdf> (drawing attention to the unique "social difficulties" brought by "large-scale, strictly temporary migration programs"); Stephen Castles, *Guestworkers in Europe: A Resurrection?* 40 INT'L MIGRATION REV. 741, 744 (2006) (citing "a widespread belief," after the European experience between 1945 and the 1970s, "that temporary labor recruitment should be avoided since it could have unpredictable social impacts," including social exclusion, residential segregation, institutional racism, and violence). For evidence that family-based migrants are more influenced by migrant networks than employment-based migrants, see

labor migration programs, however, emphasize the inability of legal measures to ensure such migration is in fact temporary,¹⁴⁰ and the tendency of such programs to create an exploited, disenfranchised population.¹⁴¹ Attention to the patterns and processes of migration emphasized in this article point to a different social cost of temporary labor migration. Even if such programs successfully ensure that labor migrants do not settle permanently and curtail the exploitation of migrants, the very impermanence of the migrant population, the lack of integration into the local community, and turnover fostered by temporary migration present a risk of social disorganization.¹⁴² Such risks may not be great where the numbers of temporary migrants are small relative to the population at destinations and where the demand for temporary labor does not create a continuous “churning” of the population. The risks are most serious where, as in parts of Russia, comparatively large segments of particular communities were continuously turning over for a period of many years. This, to be sure, does not imply that temporary labor migration programs should *never* be pursued. The lessons of the Russian experience would suggest simply that policy-makers be attuned to their full social costs in assessing alternative immigration policies.

B. “Coercive Mobility” Policies

State management of mobility does not always assume the form of migration controls. Other policies that in effect constrain and direct internal population movements may have similar adverse consequences for the informal regulation of violent crime. The potential for such consequences presented by spatially concentrated mass incarceration has already been

David A. Jaeger, *Green Cards and the Location Choices of Immigrants in the United States, 1971-2000*, in IMMIGRATION: TRENDS, CONSEQUENCES AND PROSPECTS FOR THE UNITED STATES 131 (Barry R. Chiswick ed., 2007).

¹⁴⁰ See, e.g., Martin Ruhs, *The Potential of Temporary Migration Programmes in Future International Migration Policy*, 2005 GLOBAL COMM’N ON INT’L MIGRATION 1; Philip L. Martin & Michael S. Teitelbaum, *The Mirage of Mexican Guest Workers*, 80 FOREIGN AFF. 117, 119 (2001); Douglas S. Massey & Zai Liang, *The long-term consequences of a temporary worker program: The US Bracero experience*, 8 POPULATION RES. & POL’Y REV. 199, 199 (1989).

¹⁴¹ See, e.g., Martin Ruhs & Philip Martin, *Numbers vs. Rights: Trade-Offs and Guest Worker Programs*, 42 INT’L MIGRATION REV. 244 (2008); Cristina M. Rodriguez, *Guest Workers and Integration: Toward a Theory of What Immigrants and Americans Owe One Another*, 2007 U. CHI. LEGAL F. 219, 223,

¹⁴² For a broader argument against large-scale temporary guest-worker programs as a solution to the undocumented migration problem, see Rodriguez, *supra* note 141.

noted in passing.¹⁴³ Spatially concentrated cycles of incarceration that persist through time are forms of state-created mobility that “may damage local network structures and undermine informal control.”¹⁴⁴ The removal of males from existing families breaks familial networks, decreasing the pool of marriageable men stunts the formation of new families, and the subsequent proliferation of female-headed families reduces the resources adults have to devote to youth supervision, as well as to other processes of informal social control.¹⁴⁵ The release of convicts into the community may then exacerbate these effects for reasons identified by social disorganization theorists. While released convicts are not strangers to the communities to which they return, the return of those who have been “socialize[d]... into the prison subculture” deepens “normative heterogeneity,” thereby “abet[ting] social disorganization.”¹⁴⁶ It is the structural similarity to population mobility addressed by social disorganization theorists that led sociologist Todd Clear and co-authors to describe the cycle of mass incarceration and release in terms of “coercive mobility.”

“Coercive mobility” may also describe some of the tools the government employs to deal with violators of immigration laws. Each deportation¹⁴⁷ of an individual for violations of immigration law is, in a

¹⁴³ See *supra* text accompanying notes 35-36. A number of legal scholars and social scientists have now argued and adduced evidence for the counterproductive effects on crime rates produced by spatially concentrated mass incarceration. See, e.g., Clear et al., *supra* note 33; Rose & Clear, *supra* note 33; Meares, Katyal, & Kanan, *supra* note 3 (arguing that “when punishment is heaped on a class of offenders that is not geographically dispersed but that is instead spatially concentrated . . . it is possible that the policy confounds its own crime-fighting ends by fueling the precursors to social organization disruption”); Dorothy E. Roberts, *The Social and Moral Cost of Mass Incarceration in African American Communities*, 56 STAN. L. REV. 1271, 1281 (2004) (arguing that concentrated “[m]ass imprisonment damages social networks, distorts social norms, and destroys social citizenship”); James P. Lynch & William J. Sabol, *Assessing the Effects of Mass Incarceration on Informal Social Control in Communities*, 3 CRIMINOLOGY & PUB. POL’Y 267 (2003-2004) (arguing that “increases in incarceration have affected the ability of residential neighborhoods to perform their traditional social control functions”).

¹⁴⁴ Clear et al., *supra* note 33, at 34.

¹⁴⁵ For accounts of how spatially concentrated cycles of incarceration and release undermine the processes of social control, see, e.g., Jeffrey Fagan & Tracey L. Meares, *Legitimacy and Criminal Justice: Punishment, Deterrence and Social Control: The Paradox of Punishment in Minority Communities*, 6 OHIO ST. J. CRIM. L. 173 (2008); Lynch & Sabol, *supra* note 143; Jeffrey Fagan et al., *Reciprocal Effects of Crime and Incarceration in New York City Neighborhoods*, 30 FORDHAM URB. L.J. 1551 (2003).

¹⁴⁶ Lynch & Sabol, *supra* note 143, at 273-43.

¹⁴⁷ The term “deportation” here is employed in its ordinary, non-technical meaning, equivalent to the technical term “removal”: it encompasses both removing a noncitizen from the country after the noncitizen has been lawfully admitted and removing a noncitizen who was never lawfully admitted into the country (or “exclusion”).

literal sense, an incident of coercive mobility. Targeted individual deportations however, that are dispersed in space and time are unlikely to affect the demographic structure of a community in a sufficiently significant way, so as to influence the social processes of informal control. By contrast, immigration-law enforcement strategies that spatially concentrate deportation efforts and seek large-scale, indiscriminate removal do create a risk of disruption to the social capacity for informal crime control. Like mass incarceration, spatially concentrated mass deportation resembles Soviet-style state-driven migration in non-trivial ways.

Spatially concentrated, indiscriminate deportation strategies are exemplified by the so-called immigration “raids,” targeting large employers of unauthorized workers. While there are no systematic empirical studies, there is at least anecdotal evidence that the social disruption effected by immigration raids frayed communities and undermined their capacity to constrain crime. The high-profile 2008 raid on the Agriprocessors meatpacking plant in Postville, Iowa, affords an illustration.¹⁴⁸ That raid seized nearly 400 Agriprocessors employees for violations of immigration laws from a community of 2400 residents.¹⁴⁹ In the wake of the raid, the population of the town dropped to about 1800 residents, with many non-arrested migrants fleeing as well.¹⁵⁰ Beyond the disruption to the social fabric resulting from the loss of so many residents, the attempts to fill vacancies left behind resulted in a “churning” of temporary workers through the small town.¹⁵¹ Such population turnover breaks up social networks and damages the community’s processes of self-regulation. And indeed, there is

¹⁴⁸ See Press Release, U.S. Immigr. & Customs Enforcement, ICE and DOJ Joint Enforcement Action at Iowa Meatpacking Plant (May 12, 2008) (*available at* <http://www.ice.gov/news/releases/0805/080512cedarrapids.htm>).

¹⁴⁹ Press Release, U.S. Immigr. & Customs Enforcement, 297 Convicted and Sentenced Following ICE Worksite Operation in Iowa (May 15, 2008) (*available at* <http://www.ice.gov/news/releases/0805/080515waterloo.htm>) (reporting 389 people arrested, of which 305 were criminally charged). Most of those convicted criminally were deported following a five-month sentence.

¹⁵⁰ Marcela Mendoza & Edward M. Olivos, *Advocating for Control with Compassion: The Impacts of Raids and Deportations on Children and Families*, 11 OR. REV. INT’L L. 111, 119-20 (2009) (Postville “had lost 1/3 of its population,” because “[b]eside those arrested, many had fled the town in fear.”); see also Antonio Olivo, *Immigration Raid Leaves Damaging Mark on Postville, Iowa*, L.A. TIMES, May 12, 2009, <http://articles.latimes.com/2009/may/12/nation/na-postville-iowa12> (“Postville’s population has shrunk by nearly half, to about 1,800 residents”).

¹⁵¹ Liz Goodwin, *Years After Immigration Raid, Iowa Town Feels Poorer and Less Stable*, THE LOOKOUT (Dec. 7, 2011), <http://news.yahoo.com/blogs/lookout/years-immigration-raid-iowa-town-feels-poorer-less-133035414.html> (reporting that the new owner of the former Agriprocessors plant recruited new workers “who often leave the town as soon as they find better opportunities, creating a constant churn among the population,” and reporting locals’ complaints that this “has made the community feel less stable”).

some evidence showing that the community left behind has become more susceptible to criminal victimization: social cohesion of the community was reportedly undermined, social control processes weakened, and crime increased.¹⁵² Immigration raids have gone in and out of fashion as an immigration enforcement tool.¹⁵³ There are good reasons not to resurrect such law enforcement strategies.

Raiding worksites is not the only strategy that effects socially disruptive population movements that weaken the social capacity to control violent crime. The recent pushes for the devolution of immigration enforcement to states and localities heighten the probability of disruptive coercive mobility policies. Devolution is visible in the adoption of state and local legislation aimed at driving out undocumented migrant populations,¹⁵⁴ as well as participation in federal-local partnership programs such as 247(g), which authorize local agents to directly enforce federal immigration law.¹⁵⁵ There is nothing inevitable about localities adopting more

¹⁵² See Wayne Drash, *Mayor: Feds Turned My Town "Topsy Turvy"*, CNN.COM, <http://www.cnn.com/2008/US/10/14/postville.raid/index.html#cnnSTCText> (last updated Oct. 14, 2008 12:30 PM) (reporting that "[f]ive months later, tensions are high," and "[c]rime is up"); *Postville Police Deal With New Replacement Workers*, WHOTV.COM, Sept. 7, 2008, <http://www.whotv.com/who-postvillepolicedealwithne-8966341sep07,0,7149339.story> (reporting the Postville police chief's concern that "crime has risen in the city after an immigration raid in May"); see also Antonio Olivo, *Immigration Raid Leaves Damaging Mark on Postville, Iowa*, L.A. Times (May 12, 2009), <http://articles.latimes.com/2009/may/12/nation/na-postville-iowa12> (describing the aftermath of the raids and noting that "the family-like community . . . began to unravel").

¹⁵³ Austin Fragomen & Patrick Shen, *Enforcement of Immigration Law Against Employers in the Obama Administration*, 44 ANN. IMMIGR. & NATURALIZATION INST. 51, 57-58.

¹⁵⁴ These include many laws beyond the much-discussed Arizona S.B. 1070 (2010 Ariz. Legis. Serv. ch. 113), amended by H.B. 2162 (2010 Ariz. Legis. Serv. ch. 211), or Alabama's H.B. 56 (2011 Ala. Legis. Serv. 535 (West)). The number of laws passed at the sub-federal level related to immigration has increased dramatically in recent years. See *State Laws Related to Immigration and Immigrants*, NAT'L CONFERENCE OF STATE LEGISLATURES, (last updated Feb. 22, 2012), <http://www.ncsl.org/issues-research/immig/state-laws-related-to-immigration-and-immigrants.aspx>. Many of these laws are aimed at either detaining violators of immigration laws or creating incentives for migrants to leave the locality. For critical treatments of the most aggressive measures aimed at removing as many unauthorized migrants as possible, see, e.g., Michele Waslin, *Discrediting "Self Deportation" as Immigration Policy: Why an Attrition Through Enforcement Strategy Makes Life Difficult for Everyone*, 2010 IMMIGR. POL'Y CTR. SPECIAL REP. 1.

¹⁵⁵ Under § 287(g) agreements, local law enforcement officers are deputized by ICE to enforce federal immigration laws; the agreements may empower officials to check the immigration status of arrestees, and/or to screen the immigration status in the field during normal law enforcement operations. See Illegal Immigration Reform and Immigrant Responsibility Act of 1996, Pub. L. 104-208, 110 Stat. 3009-546 (1996), which amended § 287 of the INA (codified at 8 U.S.C. § 1357(g)). See generally Jennifer M. Chacon, *A Diversion of Attention? Immigration Courts and the Adjudication of Fourth and Fifth*

aggressive policies to deal with violations of immigration law, as compared to federal enforcement policies.¹⁵⁶ Because local immigration-enforcement laws are necessarily spatially concentrated, if aggressive policies aimed at effecting deportation are adopted, they will have an equally concentrated demographic impact.¹⁵⁷ Removing a large number of residents without regard to the longevity of their residence and ties to the community is bound to disrupt social organization and undermine informal modes of social control. By contrast, more selective targeting of individuals for deportation at the national level – for example, prioritizing those guilty of committing serious crimes without targeting a particular locality – is less likely to impact social organization adversely.

While the public-order consequences of modern aggressive deportation policies in the interior have not yet been sufficiently empirically studied,¹⁵⁸ if deportations are spatially concentrated within particular communities, we should at least consider that the capacity of these communities to resist crime will suffer as consequence.¹⁵⁹ The imperative to

Amendment Rights, 59 DUKE L.J. 1563, 1579-97 (2010) (discussing the rise of federal, state, and local cooperation in immigration enforcement over the past decade via § 287(g) agreements and other partnerships).

¹⁵⁶ See, e.g., Peter H. Schuck, *Taking Immigration Federalism Seriously*, U. CHI. LEGAL F., 2007, at 59-60 (discussing the “myth of greater state hostility to immigrants,” and observing that some states adopt more generous policies towards their legal and undocumented immigrant populations compared to the federal government).

¹⁵⁷ There is evidence that aggressive local immigration enforcement initiatives trigger sudden and relatively large-scale population movements. For evidence of such movements following aggressive local or state laws, see, e.g., Campbell Robertson, *After Ruling, Hispanics Flee an Alabama Town*, N.Y. TIMES, Oct. 3, 2011 (reporting hundreds of residents, many long-term, leaving the small community within days of the court decision upholding Alabama H.B. 56). For evidence of population movements following certain modes of implementing local-federal partnership programs, see, e.g., Randy Capps et al., *Delegation and Divergence: A Study of 287(g) State and Local Immigration Enforcement*, 2011 MIGRATION POL’Y INST. 2 (finding that immigrants have left jurisdictions with “controversial 287(g) programs,” citing a 61 percent drop in the Hispanic noncitizen population in Maryland’s Frederick County, and a 23 percent decline in Virginia’s Prince William County).

¹⁵⁸ But see Erika D. Pinheiro, *287(G) And Public Safety: Determining the Effects of Local Immigration Enforcement on Crime* (Apr. 8, 2009) (unpublished M.A. thesis, Georgetown University) (finding that the 287(g) agreements that facilitate indiscriminate enforcement “have either no effect or deleterious effects on public safety and should be eliminated”).

¹⁵⁹ Most arguments about the criminogenic consequences of certain immigration enforcement policies identify the compromised efficacy of formal crime control on account of deepening mistrust between police and migrant communities, and the reluctance of immigrants, documented or not, to report crimes and cooperate in investigations. See, e.g., Cristina Rodríguez et al., *A Program in Flux: New Priorities and Implementation Challenges for 287(g)*, 2010 MIGRATION POL’Y INST. 4; David A. Harris, *Immigration and National Security: The Illusion of Safety Through Local Law Enforcement Action*, 28 ARIZ

consider the public-order consequences of policies aimed at concentrated deportation is all the more compelling in view of the aims behind more aggressive enforcement – namely, to reduce crime and augment public safety.¹⁶⁰

This article has exploited Russia's experience to demonstrate the plausibility of one explanation for the complex relationship between population movements and crime. Russia's historical experience suggests that aggressive state management of population movements forges social-network-disrupting migration patterns, and that the latter undermines the social capacity to resist criminal predation. The lesson to be learned from the Russian experience is not that this is the only dimension of population movements that conditions their public-order consequences. Plainly, other factors may play a role.¹⁶¹ Nor is this an argument against the adoption of *every* policy that induces population movement in a way that undermines the capacity for social control solely on that account. Rather, the lesson of the Russian experience is that the impact on that capacity to resist criminal predation is a real and substantial cost. It is a cost which should be taken into account, alongside more foreseeable costs and benefits, any time the state seeks to manage population movements directly or to induce changes in the composition of the population in pursuit of other aims.

J. INT'L & COMP. L. 2 (2011). These consequences may be further exacerbated by the reduced efficacy of informal modes of self-regulation in migrant-heavy communities. For related arguments regarding the social harms likely to result from aggressive deportation policies, see, e.g., Jacqueline Maria Hagan et al., *Social Effects of Mass Deportations by the United States Government, 2000–10*, 34 ETHNIC & RACIAL STUD. 1374, 1391 (2011).

¹⁶⁰ See also Chacon, *supra* note 155, at 1579 (describing state and local immigration enforcement measures “as an indirect means of achieving . . . crime-control goals”).

¹⁶¹ To cite but one of such factors: the mode of incorporation of international migrants into the host society matters in determining many social outcomes including crime rates. See, e.g., Reid et al. *supra* note 39, at 759.

APPENDIX

A. Data

1. Regions under Analysis

The following regions were excluded because their populations were too small (under 100,000) by comparison with other regions, and/or because most data on these regions are absorbed into the larger territories, of which they are physically part: Nenets, Komi-Permiak, Khanty-Mansi, Yamalo-Nenets, Taimyr, Evenk, Ust-Ordyn, Agin-Buriat, and Koriak Autonomous *Okrugs* (areas). Chechnya and Ingushetia were excluded on account of unavailability or poor quality of the data due to civil conflict. The Republic of Tuva, Jewish, and Chukchi Autonomous *Okrugs* were excluded from some models because some region-level data is unavailable for these.

2. Dependent and Main Independent Variables

Table 1. Data Description

Variable	Description	Source
<i>Homicide Mortality</i>		
Homicide Rate, 1995-2005	Deaths caused by “injury inflicted by another person with intent to injure or kill, by any means,” per 100,000 residents; annual average from 1995-2005, logged	Goskomstat ¹⁶² [Federal State Statistics Service of the Russian Federation]
<i>Unrootedness Indicators*</i>		
recent settlers in 1970	Share of respondents residing in <i>rayon</i> (urban or rural administrative unit) since 1968 or later, as of 1970	1970 Soviet Census
“non-natives” in 1979	Share of respondents residing not in the <i>rayon</i> of their birth, as of 1979	1979 Soviet Census
recent settlers in 1979	Share respondents residing in <i>rayon</i> since 1973 or later, as of 1989	
“non-natives” in 1989	Share of respondents residing not in the <i>rayon</i> of their birth, as of 1979	1989 Soviet Census
recent settlers in 1989	Share of respondents residing in <i>rayon</i> since 1980 or later, as of 1989	

TABLE 1 NOTES:

*The Censuses based their data on a 25% sample of the regional population, generalized to the whole population. Across these Censuses, residence was deemed to be in the area of respondent’s birth if respondent remained within the same administrative *rayon* (usually translated as “district”). In all Soviet censuses, at least in principle, residence was recorded irrespective of respondents’ passport registration or legality of residing where they do.¹⁶³

¹⁶² I am indebted to Vladimir Shkolnikov at the Max Planck Institute for Demographic Research for obtaining and sharing this data from the Federal State Statistics Service of the Russian Federation [hereinafter Goskomstat]. Russia follows the standardized International Classification of Diseases as the basis for determining causes of death (available at <http://www.who.int/healthinfo/morttables/en/index.html>). The quality of Russian mortality statistics is good, with 100% completeness of coverage as estimated by WHO researchers. See Mathers et al., *supra* note 99.

¹⁶³ See GOSKOMSTAT SSSR [State Committee on Statistics of the USSR], ITOGI VSESOUZNOY PEREPISI NASELENIIA 1989 GODA, VOL. XII [Results of the All-Soviet Census of the Population 1989] (1992); GOSKOMSTAT SSSR, ITOGI VSESOUZNOY PEREPISI NASELENIIA 1979 GODA: STATISTICHESKIY SBORNIK, VOL. X [Results of the All-Soviet Census of the Population 1979: Statistical Compilation] (1989); TSENTRALNOE STATISTICHESKOE UPRAVLENIE SSSR [Central Statistical Administration of the USSR],

3. Control Variables

The regression analysis controls for the following factors. First, the analysis takes into account the state of regional economies and the residents' life conditions after the collapse of a command economy. Prior research has found that indicators of material or resource deprivation (e.g., inequality, unemployment) and affluence (e.g., wealth per capita or poverty) are consistently of consequence to violent crime disparities across space.¹⁶⁴ In the post-communist context, the demise of uncompetitive economies impoverished many areas, creating unemployment and acute material need that was likely to drive many to illicit sources of income – and many criminal activities entail the increased risk of lethal violence. Thus, to guard against the possibility that the unrootedness–homicide relationship is confounded by historically-developed patterns of material deprivation, I include regional indicators for poverty, unemployment, and inequality.

Predictions with regard to indicators of affluence on the other hand, such as GDP or income per capita are more ambiguous.¹⁶⁵ However ambiguous theoretically, regional wealth may be a source of cross-regional variation in lethal violence in this context, and I control for regional levels of per-capita wealth. Regional economic data for the early years of post-communism have not been very reliable or consistent.¹⁶⁶ To reconcile different estimates of similar indicators in a way that uses most of the reliable information from several sources, and to avoid potential problem of multicollinearity from including multiple measures of the same underlying phenomenon, I reduce the number of variables by means of principal component factor analysis.¹⁶⁷ As a result, regression models include a

ITOGI VSESOIUZNOY PEREPISI NASELENIIA 1970 GODA, VOL. VII. (Results of the All-Soviet Census of the Population 1970] (1972).

¹⁶⁴ For reviews of the consistent explanatory power of resource deprivation and affluence, see Patricia L. McCall et al., *An Empirical Assessment of What We Know About Structural Covariates of Homicide Rates: A Return to a Classic 20 Years Later*, 14 HOMICIDE STUD. 219, 230-32 (2010); Pratt & Cullen *supra* note 31, at 378; Fajnzylber et al., *supra* note 110.

¹⁶⁵ See, e.g., Fajnzylber et al., *supra* note 110, at 1328.

¹⁶⁶ See e.g., Jeni Klugman & Jeanine Braithwaite, *Poverty in Russia during the Transition: An Overview*, 13 WORLD BANK RES. OBSERVER 37, 39 (1998); Nadezhda Mikheeva, *Differentiation of Social and Economic Situation in the Russian Regions and Problems of Regional Policy* 12 (Econ. Educ. & Res. Consortium: Russian Econ. Res. Program, Working Paper, 1999) (on file with author). See generally, MICHAEL J. BRADSHAW & PHILIP HANSON, REGIONAL ECONOMIC CHANGE IN RUSSIA (2000).

¹⁶⁷ See, e.g., McCall et al. *supra* note 163, at 223-224; Richard Rosenfeld et al., *Social Capital and Homicide*, 80 SOC. FORCES 283, 291(2001).

“regional wealth factor,” based on one estimate of the real gross regional product per capita and two estimates of income per capita. A squared term is included because exploratory graphic analysis reveals that the relationship between homicide rates and regional wealth is closer to a quadratic rather than a linear one.

A final dimension of post-communist regional economic conditions that needs to be taken into account has to do with the severity of the negative shocks to output and productivity that were delivered by the transition from a command to a market economy.¹⁶⁸ While poverty, inequality, unemployment and wealth capture some of the dislocations of transition, they do not adequately capture the magnitude of the *contraction* of, or break-down in the regional economies during the transition. To capture the dimension of change, I include a measure of contraction in industrial production, using industrial volume in 1994 as percent of the pre-collapse, pre-liberalization 1984 industrial volume.¹⁶⁹

Second, even with a dysfunctional criminal justice system, the relative capacity of the state to control crime is likely to matter. To control for the variable state capacity for crime control, I employ a common indicator for the effectiveness of law enforcement – crime clearance rates, or the percentage of recorded crimes deemed to be “solved” annually.¹⁷⁰ While crime clearance is not a perfect indicator of the state’s crime-control capacity, it is preferable to indicators such as imprisonment rates, the size of the incarcerated population, or the severity of punishment.¹⁷¹

¹⁶⁸ Common intuitions with regard to the impact of collapse suggest that Russian regions that experienced the most severe socioeconomic shocks during the 1990s experienced the greatest socio-economic dislocations, and thus, the highest levels of violent lawlessness since the 1990s. *See supra* note 89 and accompanying text.

¹⁶⁹ Changes in the industrial volume, rather than change in GDP, are employed due to the difficulty of calculating real GDP change from a starting point of a non-market economy, and in an environment of high and fluctuating inflation. In view of the dominance of industrial production in the Soviet economy and the concentration of production (output) declines in the industrial sector, the industrial volume is an adequate indicator of general economic contraction. For an overview of the debate surrounding Russia’s output collapse, see STEFAN HEDLUND, RUSSIA’S “MARKET” ECONOMY: A BAD CASE OF PREDATORY CAPITALISM 348 (1999).

¹⁷⁰ The crime clearance rate captures the effectiveness of the criminal justice system because it indicates the certainty of punishment, which matters for both deterrence of crime and incapacitation of offenders. *See Pratt & Cullen supra* note 31, at 415; Isaac Ehrlich, *Crime, Punishment, and the Market for Offenses*, 10 J. ECON. PERSPECTIVES 43 (1996).

¹⁷¹ Imprisonment rates or the size of the incarcerated population present a simultaneity problem that is difficult to solve without techniques such as instrumental variables. *See Robert Apel & Daniel S. Nagin, General Deterrence: A Review of Recent Evidence*, in CRIME AND PUBLIC POLICY 411, 414 (James Q. Wilson & Joan Petersilia, eds., 2011); Steven D. Levitt & Thomas J. Miles, *Economic Contributions to the Understanding of Crime*, 2 ANNU. REV. LAW SOC. SCI. 147, 151-52 (2006). The variation in the severity of

Third, following existing research, I control for key socio-demographic structural factors. This includes the incidence of divorce as an indicator of family disruption, which is also thought to decrease the availability of communal resources for supervision and control over youths, and the share in the population of the young male cohort (ages 15-39), as young males are widely known to be more prone to both offending and victimization.¹⁷² This also includes the level of urbanization, following the common claim that urban spaces provide both more opportunity for crime (largely by virtue of density) and are less socially regulated than rural areas (largely by virtue of anonymity).¹⁷³

Finally, I control for a factor that is perhaps in a class of its own in the present setting, the national proclivity towards heavy alcohol consumption. Unsurprisingly, the level of alcohol abuse is the only invariably significant explanatory factor in existing analyses of Russia's homicide rates.¹⁷⁴ I follow prior studies in employing the number of deaths from alcohol poisoning per 100,000 residents as a proxy for heavy alcohol consumption/alcohol abuse.¹⁷⁵ The description of each variable as well as its source is summarized in Table 2 below.

punishment for any crime or set of crimes across Russia's regions is too insubstantial to weigh heavily in producing cross-regional differences in homicide rates.

¹⁷² For studies and reviews of studies finding a link between cross-sectional disparities in violent crime and indicators of family disruption such as divorce rates, shares of divorced males, or prevalence of female-headed families, *see, e.g.*, Sampson & Groves *supra* note 20, at 789-90; McCall et al. *supra* note 163, at 231; Pratt & Cullen *supra* note 31, at 389, 402. With regard to the relationship between the young male cohort population share or simply the population share of the young, *see* McCall et al. *supra* note 163, at 231; South & Messner *supra* note 22, at 86. The upper limit of the age range employed here is higher than it is in most studies of the U.S. or Western Europe, to accommodate the older profiles of both homicide offenders and victims in Russia. *See* Pridemore *supra* note 88, at 742; Chervyakov et al. *supra* note 88, at 1717.

¹⁷³ *See, e.g.*, Sampson & Groves *supra* note 20, at 782.

¹⁷⁴ *See, e.g.*, William A. Pridemore, *Vodka and Violence: Alcohol Consumption and Homicide Rates in Russia*, 92 AM. J. PUB. HEALTH 1921 (2002); Pridemore *supra* note 88, at 741; Chervyakov et al. *supra* note 88, at 1720; Andrienko *supra* note 89, at 22.

¹⁷⁵ For an explanation of this indicator and why it is more appropriate as a measure of heavy alcohol consumption in Russia than estimates of consumption or sales, *see, e.g.*, A. V. Nemtsov, *Estimates of Total Alcohol Consumption in Russia, 1980-1994*, 58 DRUG & ALCOHOL DEPENDENCE 133 (2000).

Table 2. Data Description

Variable	Description	Source
Control Variables		
Alcohol poisoning rate, 1990-94	Deaths caused by “accidental poisoning by and exposure to alcohol,” per 100,000 residents; annual average from 1990-94, logged	Goskomstat ¹⁷⁶
% males 15-39, 1990-94 avg	% of total population comprised of the male 15-39 sex-age cohort.	
% urban population , 1990-94	% of total regional population residing in urban areas (census classification of urban) at start of year; annual average from 1990-94	Goskomstat ¹⁷⁷
Industrial Volume in 1994 as % of 1984	Physical volume of industrial production, in % of index or previous year.	
Unemployment, 1992-94	Share of unemployed of economically-active population (ILO methodology)	
Poverty, 1994	Share of population with money incomes below the region-specific subsistence minimum	
Gini, 1995	Gini coefficient of income concentration	
Divorce Incidence, 1990-94	Total recorded divorces per 1,000 residents at end of year; annual average from 1990-94	
Crime Clearance Rate, 1990-94	Ratio of “apprehended” or “revealed” criminals to registered crimes in year; annual average from 1990-94	Ministerstvo Vnutrennikh Del Rossiiskoi Federatsii [Ministry of Interior]
Wealth Factor, 1990-94*	Principal component factor capturing the region's economic activity	Generated by author as detailed below•

TABLE 2 NOTES:

*Wealth Factor is generated by extracting the principal component, employing orthogonal varimax rotation, from the following three indicators: gross regional product per capita, annual average between 1990 and 1994¹⁷⁸; money income per capita, annual average 1990-94¹⁷⁹; real income per capita, 1993.¹⁸⁰

¹⁷⁶See *supra* note 161.

¹⁷⁷ Goskomstat, *Regiony Rossii: Sotsialno-Ekonomicheskie Pokazateli* [Regions of Russia: Socio-Economic Indicators] (2002-2010) and *Regiony Rossii* [Regions of Russia] (1997-2001), available at <http://udbstat.eastview.com>

¹⁷⁸ Estimated by Mikheeva, *supra* note 165.

¹⁷⁹ Official figures reported by Goskomstat in *Regiony Rossii* (1997-2001).

¹⁸⁰ Estimated by Jeanine Braithwaite, *The Old and New Poor in Russia: Trends in Poverty* (The World Bank ESP Discussion Paper Series 21227, 1995) (on file with author).

B. Bivariate OLS Regression, Homicide Rate on Unrootedness

Table 3. Bivariate OLS Regressions of Logged Average Annual Homicide Rate, 1995-2005, on population unrootedness indicators

indicator	[1]	[2]	[3]	[4]	[5]
% new settlers in 1970 (in place since 1968)	7.57***				
% "non-native" population in 1979		3.53***			
% recent settlers in 1979 (in place since 1973)			4.10***		
% "non-native" population in 1989				3.51**	
% recent settlers in 1989 (in place since 1980)					3.47***
R-squared	0.33	0.47	0.36	0.36	0.27
N	71	77	77	77	77

TABLE 3 NOTES:

* p<0.05, ** p<0.01, *** p<0.001. All regressions carried out with heteroskedasticity-consistent (hc3) standard errors (in parentheses). Constants are not reported for compactness.

C. Robustness

To see whether the unrootedness-homicide relations remains robust after controlling for further unobserved regional or spatial effects, and whether any regional or spatial effects remain after including the unrootedness indicators, I explicitly model spatial processes and control for other undiagnosed sources of the spatial variation, as follows.

First, I construct a "spatial lag" model that controls for potential omitted spatial processes by including an average homicide rate of neighboring regions in the regression.¹⁸¹ The results confirm that there may indeed be further spatial processes that are not captured by the included explanatory variables: the coefficients on the spatial lag term are positive and significant in five of six models.¹⁸² Notably, however, the presence of any undiagnosed spatial processes or omitted variables does not significantly affect the estimated unrootedness-homicide relationship. The estimated coefficients remain significant, even if slightly smaller in magnitude than those estimated without a spatial lag: for example, the coefficient on new settlers in 1970 (model 4) decreased to 11.3 from 13.4.

¹⁸¹ See, generally, LUC ANSELIN, SPATIAL ECONOMETRICS: METHODS AND MODELS (1988).

¹⁸² Results not reported for compactness, and available upon request from author.

Second, I use a “spatial heterogeneity” model that allows for “level” effects by including an indicator for multi-regional high- and low-homicide clusters. This kind of model tests for the presence of omitted variables that vary across large geographic areas. For example, in the United States, the so-called Southern “sub-culture of violence” hypothesis posits that interpersonal violence is endemically more widespread in Southern states for cultural reasons. To probe the plausibility of this hypothesis, a dummy variable for the South would have to be positively and significantly related to state homicide rates after all other relevant factors are accounted for. In the Russian case, I control for East Siberia and Far East – which are high-homicide area “clusters”, and North Caucasus and Black Earth – which are low-homicide area “clusters”.¹⁸³ Although the signs on the estimated coefficients on the macro-regional dummies are in the expected direction, they are significant only in some models.¹⁸⁴ In short, there does appear to be something about the North Caucasus and Black Earth regions that makes these areas less predisposed to high rates of homicides than the rest of the country, and correspondingly, something about East Siberia and the Far East – apart from the manner of their settlement – that predisposes these areas to higher homicide rates. Thus, Soviet-era migration patterns do not *fully* explain the dramatic differences across regions in homicide rates. Nonetheless, the relationship between the unrootedness indicators and homicide rates remains robust after controlling for these other unobservable factors.

¹⁸³ East Siberia, Far East, North Caucasus and Black Earth are 4 of 12 economic macro-regions of the country, which date to the Soviet era.

¹⁸⁴ See *supra* note 181.