Ethnopolitical Rebellion: A Cross-Sectional Analysis of the 1980s with Risk Assessments for the 1990s

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Theory: A synthetic theoretical model built on both deprivation and resource mobilization arguments is constructed to explain ethnopolitical rebellion for the 1980s and to provide risk assessments for the early 1990s.
Hypotheses: We hypothesize that ethnopolitical groups which produce residuals well below the regression line will likely exhibit rebellious behavior in the early 1990s.
Methods: We use a three stage least squares estimator, analyze the coefficients and their standard errors, and also examine the residuals.
Results: We find broad support for the theoretical synthesis, but focus attention on the risk assessments. In addition to identifying ethnopolitical groups that did resort to greater violence in the early 1990s, the theoretical model helps us explain why a number of groups that the analysis suggested would rebel in the early 1990s have not in fact done so.

Introduction

Fifty-eight significant armed conflicts were underway in 1995, according to a recent Dutch study. Only one, a border dispute between Ecuador and Peru, was a conventional interstate conflict.[1] The others were intrastate disputes: 49 were being fought over ethnopolitical issues: wars for independence or regional autonomy, contention among ethnic rivals for control of state power, communal or clan warfare. The Minorities at Risk project's current roster of politically significant ethnic and other communal groups lists 268 groups with roughly one-sixth the world's population, many of them potential participants in future armed conflicts.[2] The challenge for conflict

    [1]Jongman (1995, 22–23) provides a roster that includes 20 "major armed conflicts," defined as those that caused more than 1,000 deaths in the preceding year; and 38 "lower intensity conflicts," defined as those that caused 100 to 1,000 deaths in the preceding year.

    [2]The Minorities at Risk project tracks and analyzes the status and conflicts of politically active communal groups throughout the world. Phase I of the project reports data on 233 groups from 1945 to 1989, with most coding referring to the 1980s. Phase II of the project is unpublished. Phase III provides more in-depth profiles and coding of 268 groups for the period 1990–95.

analysts is to specify the conditions under which some ethnic groups are drawn into cycles of rebellion and repression, while others reach peaceful accommodations with regimes and rivals. Those who make foreign and international policy seek more than explanation: they want better "early warnings" of impending conflicts so that preventive diplomacy and other conflict management tools can be brought into play. Reliable early warnings increase the opportunities for prevention and give more lead time for contingency planning for humanitarian and peace-keeping operations.

This study uses the first global dataset on ethnopolitical groups and conflicts to make some modest progress toward both objectives. Phase I of the Minorities at Risk project provides 1980s data that we use to estimate a theoretical model of the causes of ethnopolitical rebellion. As explained below, the indicators used improve significantly on those available for two earlier studies (Gurr 1993b; Lindström and Moore 1995). Hayward Alker (1994) has expressed doubts as to whether general models estimated from cross-sectional data can contribute reliable early warnings of ethnic conflict; he thinks dynamic, microanalysis of specific cases has greater potential. This article provides some relevant evidence: the model estimated with 1980s data is used to identify groups with high unrealized potential for conflict. Then these "assessments" are compared to the actual levels of ethnopolitical rebellion in 1990–95 and interpreted in political context. The results suggest that the cross-sectional strategy has considerable potential, not for providing precise early warnings but for efficient, theoretically guided identification of groups that should be subject to close monitoring and microanalysis of the kind recommended by Alker and other early warning researchers.

A Theoretical Model of Ethnopolitical Conflict

This section sketches a modified version of the first author's theoretical model of ethnopolitical conflict (Gurr 1993b, 1996). The modifications are driven by both conceptual concerns and the empirical analyses reported in previous studies. First we discuss an assumption that conceptually delimits the empirical phenomena, then define the four concepts that serve as the explanation of the model. We next sketch the arguments that motivate the hypotheses and, hence, specification of the statistical model (described in the following section).

To begin, we make a heuristic simplification when developing the theoretical model and conceive of ethnopolitical conflict as a dyadic phenomenon. Reality, of course, belies this simplification: Xhosa and Zulus fight with one another and have opposed the South African state; one Moro nationalist faction negotiates with the Philippine government while another mounts attacks against its rival, Christian settlers, and the government. Nevertheless, modeling is—by definition—an enterprise with simplification at

Figure 1: Linkages Among the Four Main Concepts

REBELLION $\xrightarrow{(+)}$ REPRESSION

(+) (+)

(+)

MOBILIZATION $\xleftarrow{(+)}$ GRIEVANCES
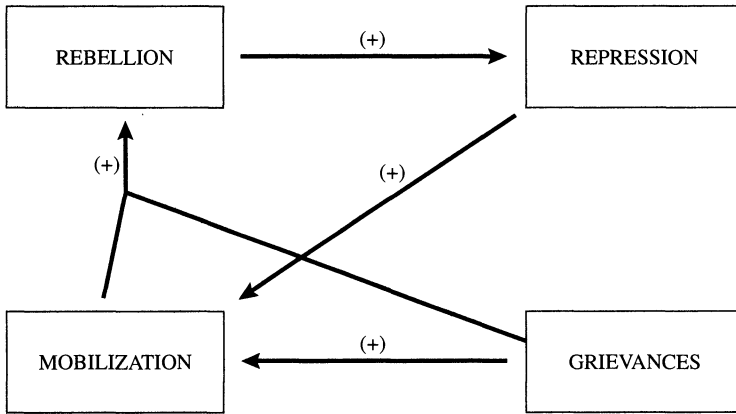
its core, and we think that isolating the conflict interactions between a given state and a given ethnic group is useful for theoretical and policy purposes.

Ethnopolitical conflict involves groups that define themselves by reference to some combination of common descent, shared historical experiences, and valued cultural traits who make claims on behalf of their collective interests against either a state or other groups. The state may make such claims in the name of a dominant ethnic group; ethnic or religious identity groups may make such claims against the state and other contenders. Ethnopolitical conflict rarely is entirely one-sided: one actor's (state or ethnic group) claims and actions are usually countered by those of other parties. Our theoretical model of this conflict process includes four central concepts: rebellion, repression, mobilization, and grievances. Rebellion is a concerted campaign of violent action used by organizations claiming to represent an ethnic group to make claims against the state. Repression is action that states take to enforce claims against an ethnic group.[3] Mobilization is the capacity of an organization that represents an ethnic group to get its members to support collective action. Grievance refers to widely shared dissatisfaction among group members about their cultural, political, and/or economic standing vis à vis dominant groups. These four concepts are interdependent; their linkages are depicted graphically in Figure 1. The four concepts are the dependent variables in a system of simultaneous equations, and we turn our attention now to specifying their determinants.

[3] States also use strategies of accommodation and co-optation toward challenging groups. Comprehensive data on the use of these strategies are not available for the 1980s but are being assessed for the 1990s in the Minorities Project's Phase III.

We begin with rebellion: it is directly influenced by mobilization, griev-ances, the extent to which the state is democratic and penetrates society, and the extent of similar rebellions in the international system. Ethnopolitical rebellion is primarily driven by grievances among an ethnic group and by how well that group is mobilized and, hence, in a position to take collective action. We contend that both grievances and mobilization are proximate causes of rebellion, and hypothesize that they will have a positive impact on levels of rebellion (Gurr 1993a, 1993b, 1996; Korpi 1974; Lindström and Moore 1995; Moore and Jaggers 1990; White 1995).[4]

The impact of democratic institutions on the forms and extent of politi-cal conflict within states has long been recognized (an early summary of evi-dence is Zimmermann 1980). As a consequence, measures of democracy, freedom, and similar concepts are frequently included on the right-hand side of statistical equations in cross-sectional studies of rebellion and generally perform well. One might argue, however, that a macrostructural concept like democracy is a proxy variable for state preferences for policies of accommo-dation vs. repression, and that it is the mix of the latter rather than demo-cratic institutions per se which affects conflict strategies. We suggest these contentions regarding democracy's effects:

- the presence of democratic institutions will influence decisions by dissident groups to select protest or rebellion, but will not influence the extent of rebellion;
- a theoretical model that specifies the relationship between state re-pression and rebellion—we contend that it is an indirect relationship, through mobilization—is preferable to one that uses democracy as a proxy measure for repression; and
- the democratic state's ability to penetrate society will have a negative impact on rebellion.

This study does not report tests of the first portion of the first contention above, though we did include measures of democracy and democratization on the right-hand side of the rebellion equation in analyses not reported here, and they were not significant.[5] The second contention explains why

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[4]The authors hold somewhat different views on the impact that grievances have on rebellion. The first author argues that both grievances and mobilization have a direct impact on rebellion and that the two interact with one another in a particularly potent fashion (Gurr 1993b). The second au-thor, however, contends that grievances do not have a direct effect on rebellion; rather, they have a direct effect on mobilization which, in turn, influences rebellion (Lindström and Moore 1995). We test both versions below. The results reported below lend support to the second author's view.

[5]A number of systems were estimated but, in the interest of parsimony, only the results of one system are reported here. We first specified a system that had several more variables than are in-cluded in the system reported in Table 4. This system was specified based on extant theory and em-

measures of democracy and democratization perform poorly in our study though they have performed well in others: this is the first analysis of ethnopolitical rebellion to include state repressive behavior in the system and, as such, is a more fully specified model. The implication is that previous findings of a negative relationship between democracy and the extent of ethnorebellion are spurious (i.e., democracy is simply a proxy for repressive behavior and will not be significant once repressive behavior is specified in the statistical model). Finally, with respect to the third contention, the first author has argued that the utility of nonviolent political activism is high in long-established democracies because they provide a dense network of institutions to channel and respond to protest (Gurr 1993b, 189; the argument derives from Eckstein 1971). As such, we expect democratic states that have developed institutions that extensively penetrate society to experience lower levels of ethnopolitical conflict than either autocratic states with such institutions, or democratic states that have not yet developed such institutions.

We also expect ethnopolitical rebellion to diffuse through the international system. Specifically, the occurrence of similar rebellions elsewhere in a region is hypothesized to have a positive effect on rebellion. Regional ethnopolitical rebellions provide models for action and, insofar as they are successful, their emissaries are disposed to offer strategic guidance and material support for like-minded groups elsewhere. Gurr (1993b) and Lindström and Moore (1995) report results that support this relationship.

Turning to mobilization, we anticipate that it is influenced by group coherence; the level of grievances among group members; and the severity of state repression. The mobilization approach suggests that political entrepreneurs organize collective action by developing institutions and commitments that increase individual group members' propensity to contribute to collective action (Tilly 1978). Group coherence, by which we mean a sense of common identity shared among group members, is thus expected to have a positive causal impact on mobilization. Collective grievances about differential treatment, jointly with the sense of group identity, provide the essential bases for mobilization and shape the kinds of claims made by the group's leaders (see Gurr 1993a, chap. 3). Hence, we expect the extent of grievances also to have a positive causal impact on mobilization.

Turning to the impact of repression on mobilization, Tilly (1978) argues that repression raises the costs of collective action and, thus, has a negative effect on mobilization. However, Lichbach (1987) develops a rational choice model that specifies a more nuanced relationship between repression

pirical findings from studies of ethnic conflict behavior. Variables that performed poorly in repeated specifications were eliminated. A list of the systems we estimated is available via the WWW at:
    http://wizard.ucr.edu/~wm/ethcon/phase1.html

and collective action, and Moore (1998) provides empirical support for the argument. Lichbach hypothesizes that when mixed with accommodation and targeted explicitly at groups that employ violence, repression will have a negative effect on violent collective action by groups that are not targeted (and anticipate some measure of accommodation). Alternatively, when repression is meted out indiscriminately, all groups will respond by decreasing their nonviolent protest behavior and adopting violent collective action behavior. A third possible strategy is the use of repression without accommodation, targeted specifically at challenging groups. Lichbach's theory suggests that this policy will stimulate intensified resistance by the targeted groups. Following Lichbach we hypothesize that repression will have a positive impact on the mobilization of groups already committed to a strategy of rebellion rather than protest.[6]

Next, we consider the antecedents of grievances. In macroempirical research on civil violence, grievances (or relative deprivation) have typically been measured indirectly by reference to variables assumed to cause grievances, such as economic and political discrimination, rapidly expanding educational opportunities, low caloric intake, rapid urbanization, high inflation rates, unequal economic growth, etc. (e.g., Feierabend and Feierabend 1966; Gurr 1968; Muller 1980). Because the Minorities at Risk, Phase I study developed direct indicators of grievances (see below), grievances can be modeled as a function of these types of conditions. We contend that economic discrimination, political discrimination, demographic distress, lost political autonomy, and past repression all increase grievances. By economic and political discrimination we mean the systematic and selective limitation of peoples' access to economic opportunities or political positions based on their ascriptive characteristics. Active discrimination may be the result of deliberate state policies or of pervasive social practice by dominant groups; residual discrimination is the result of such policies and practices in the past (Gurr 1993a, 42–8). Demographic stress, on the other hand, refers to objective conditions of deprivation: ethnopolitical groups with high stress have relatively high birth rates and poor public health conditions and face pressures (forced development, resettlement) on traditional lands and resources (Gurr 1993a, 49–51; operational indicators are described below). The historical loss of political autonomy is relevant because it is invoked widely and with considerable effect by leaders of ethnonational and indigenous rights movement: myths of freedom lost are an enduring source of contemporary grievances. The last causal linkage to grievances is past state repression: the

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[6]Because the Minorities at Risk project has coded state repressive behavior toward specific ethnic groups, it is not necessary to make an operational distinction between discriminate and indiscriminate deployment of repression. The data are discussed below.

supposition is that ethnopolitical groups victimized by repression in the recent past harbor grievances toward the agents of repression.

Finally, we are also interested in the sources of state repression of ethnic groups. We begin with a theoretical explanation of the ways in which some states come, over time, to rely on coercion to manage internal political conflicts and to respond to external challenges (Gurr 1988; Harff 1987). The model addresses both internal and external uses of coercion, i.e., repression and war. The contention relevant to this study is that the state's use of repression is driven by internal challenges (in this study, ethnorebellion), successful past uses of coercion, and coercive capabilities.[7] The logic behind the influence of rebellion and capabilities is transparent, but two distinct causal relationships drive the impact of past successful use of coercion and thus warrant a brief comment. First, the use of repression in past episodes of ethnopolitical conflict leads to the creation and, in some cases, institutionalization of internal security organizations; the presence of such organizations enhances their deployment. Second, if repression was used successfully in the past against an ethnopolitical group, that reinforces elites' preference for using repression in subsequent episodes of ethnopolitical conflict.

Finally, we explore the relationship of institutional democracy and autocracy to repression. Widespread and persistent challenges prompt elites to establish or reinforce autocratic patterns of rule and, as argued above, to rely on repression. Durable democracies, on the other hand, usually make little use of repression because historically they have been relatively successful in using noncoercive means to deflect challenges and redress grievances. Hence the hypothesis that democratic states are unlikely to rely mainly on coercion in response to internal challenges (Gurr 1988, 55). This hypothesis may appear inconsistent with the contentions made above regarding democracy, repression, and rebellion. We argued, however, that democracy will not directly influence levels of rebellion; rather, levels of repression affect levels of mobilization, which, in turn, influence levels of rebellion. We now complicate that story by arguing that democracy reduces elite preferences for repressive strategies.

Our research design prohibits us from fully probing the democracy→ repression linkage because the argument describes a temporal process whereas our research design is cross-sectional. That is, the first author's hypothesis describes a process that unfolds over time: states with democratic

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[7] With respect to repression, capabilities refer primarily to a state's internal security capabilities. Since cross-national data on internal security capabilities are not available, we cannot include this variable in the analysis. Further, ethnorebellion—our measure of internal challenges—performed poorly in initial model estimates and thus was dropped out of further analysis. Future analyses will return to this question with better indicators.

institutions that experience repeated successes using those institutions to manage conflict are likely to continue to use them, not repression. But our analysis is cross-sectional and includes democratic states of vastly different durability. Nevertheless, given that it is a major factor in other recent studies (e.g., Davenport 1995a, 1995b, 1996; Gupta, Singh, and Sprague 1993), we include democracy as an independent variable in the repression equation.

Testing the Model

This section describes the operationalization of the concepts defined above, explains the estimation technique, and reports the results of statistical analysis. The model is tested using the Minorities at Risk, Phase I data with substantial additions. The coded data provide profiles of 233 ethnic groups throughout the world circa 1985, and are described in considerable detail in Gurr (1993a) and Lee (1992). In addition, we report and use new indicators for political mobilization, regime repression, and rebellion. The lack of direct indicators of political mobilization was a substantial limitation for previous empirical studies using the Phase I dataset (Gurr 1993b; Lindström and Moore 1995). In those studies the extent of political mobilization was inferred from past levels of ethnopolitical protest and rebellion. This study uses a new indicator of mobilization operationalized using coded information on (1) the scope of support for the largest organization claiming to represent the group in the mid-1980s and (2) the number of organizations (parties, movements, fronts, etc.) that claimed to represent the group in that period. The coding scheme distinguishes between open (i.e., legal) and clandestine (i.e., illegal) organizations, as depicted in Table 1.[8] To create a summary mobilization variable we added the higher of the scope and organization variables (i.e., open vs. clandestine). Future studies will explore the differential effects, if any, of open and clandestine organizations on the extent of rebellion.

The second set of new indicators measures aspects of regime repression, and the coding schemes are depicted in Table 2. The theoretical model specifies three aspects of state repression: its current use, its past use, and the outcome of its most recent use. To operationalize these concepts we make use of a measure of the most severe and widely-employed strategy of repression adopted by the state against a given group during the most recent episode of ethnopolitical conflict, through 1985.[9] The variable "severe" has six pos-

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[8] The Minorities at Risk project files include summary descriptions of each ethnopolitical group and selected documentary evidence. This material plus other reference materials (especially Degenhardt 1988) were screened by Kelly Collier for information on ethnic political movements in the 1980s. Summaries of this information were coded by the first author. Phase III of the Minorities project includes more detailed profiles on the principal political organizations representing each ethnopolitical group in the 1990s.

[9] Please note that a few localized occurrences of higher-category actions may be discounted.

Table 1. Coding Scales for Scope and Organization

Number of open (legal) organizations (OPENORG)
  0   none reported
  1   one group
  2   two groups
  3   three or more

Number of clandestine (illegal) organizations (CLANORG)
  0   none reported
  1   one group
  2   two groups
  3   three or more

Note: If an organization is legal in one period and banned in another, it is categorized according to its status in the mid-1980s. See note 8 for sources used.

sible scores, ranging from conventional policing through geno/politicide.[10] Since we want to distinguish the effects of repression during the 1980s (which is hypothesized to inhibit mobilization) and repression prior to the 1980s (hypothesized to intensify grievances), we recoded "severe" to create two variables, the first of which measures repression used in episodes that began or were ongoing in the 1980s (sev80s in the replication dataset) and a second that measures repression used in episodes that ended before 1980 (psevere in the replication dataset).[11] The third indicator of state repression is operationalized using the variable "outcome," which registers the state's relative success or failure in containing past challenges by an ethnopolitical group. The variable can take one of five outcomes: regime win; regime near win; indeterminate outcome, or no previous use of repression; regime crisis; or regime transformation.

Finally, the scales used to code ethnopolitical conflict in the Phase I data were revised. The original scheme distinguished among nonviolent protest, violent protest, and rebellion; each was coded for successive five-year intervals (1945–49 . . . 1985–89) using Guttman scales. However, the "violent protest" scale included local rebellions, which are conceptually closer to rebellion than protest. Moreover, the "non-violent protest" scale included "substantial political organizing activity," a category of action that (a) posed problems of coding reliability and (b) overlaps too closely with

[10]Note that actions in categories 4, 5, and 6 are targeted at members of communal groups irrespective of whether they are openly opposing the government. Actions in categories 1 through 3 are targeted mainly at rebels and protestors. This may explain why our rebellion indicator does not perform well in the repression equation: part of the variance in rebellion is captured by the repression indicator.

[11]The coding on these and other repression variables was done from two sources: Barbara Harff's compilation of information on communal groups targeted in post-1945 genocides and politicides (Harff 1992) and the Minorities at Risk file materials described in note 9.

Table 2. Coding Scales for State Repression Indicators

Severity of regime action toward communal group in most recent episode prior to 1985 (SEVERE).

1   *Conventional policing:* reliance on conventional law enforcement means, including nonviolent crowd control, standard investigation techniques, arrests and trial of communal activists for criminal offenses.

2   *Emergency policing:* reliance on emergency law enforcement means including the use of military and armed police to control crowds; suspension of due process for purposes of investigation, detention, and/or trial of communal activists.

3   *Counterinsurgency:* military and counter-terror operations targeted at communal combatants.

4   *Preemptive control:* policies of proactive control and deterrence such as forced assimilation, confiscation of property, forced resettlement, criminalization of ethnopolitical activities, systematic domestic spying, large-scale arrests and detention of communal activists.

5   *"Dirty war":* substantial numbers of communal group members are targets of arbitrary arrests, executions, and/or sporadic massacres carried out by regular forces, paramilitary units, vigilantes, or death squads. (This coding is used for some episodes of geno/politicide in which intent and impact are less severe than in 6, below.)

6   *Geno/politicide:* sustained campaigns aimed at physical elimination of members of a communal group irrespective of their combatant or noncombatant status.

Outcome of last episode of communal challenge or victimization prior to 1985 (OUTCOME).

+2   *Regime win:* no current militant activity by communal group.

+1   *Regime near-win:* low-level militant activity continues, internally or externally based, but poses no serious threat to regime control.

 0   *Outcome indeterminate:* stalemated or fluctuating conflict, cease-fires or negotiations in progress, or no previous episode.

−1   *Regime crisis:* conflict precipitated a regime crisis (coup, polity change) that did *not* lead to a win or near-win over communal contenders. If the crisis led to a win or near-win, code +2 or +1.

−2   *Regime transformation:* conflict lead to a regime change in which the challengers displaced the old regime; were incorporated by power-sharing arrangements; or gained extensive autonomy or independent statehood.

Note: See note 11 for sources used.

mobilization.[12] To remedy these problems the Phase I data have been recoded using the two-dimensional coding scheme for protest and rebellion presented in Table 3.[13] The analyses presented below use the new rebellion measure.[14]

[12] Gurr (1993b) and Lindström and Moore (1995) both used the Phase I rebellion indicator in their studies.

[13] Phase III uses the new indicators of protest and rebellion and codes them annually from 1985 through 1995. The Phase I codings for the 1980s (and earlier periods) can be mapped onto the new indicators by recoding the Phase I data for PROT80, RIOT80, and REB80. The SPSS file used for the task is available on the WWW at:

http://wizard.ucr.edu/~wm/ethcon/phase1.html

Table 3. Coding Scales for Protest and Rebellion

Protest

0 = none reported

1 = verbal opposition (public letters, petitions, posters, clandestine publications, agitation, etc.)

2 = scattered acts of sabotage, symbolic destruction of property

3 = other (i.e., events scored 6 in the Phase I nonviolent protest measure)

4 = a few demonstrations, strikes, rallies (total participation in the hundreds to low thousands); limited rioting; other (i.e., events scored 6 in the Phase I violent protest measure)

5 = a number of demonstrations, strikes, rallies (total participation in the 10,000 range or higher); substantial rioting

6 = similar events to 5, but participation in the 100,000s; serious and widespread rioting

Rebellion

0 = none reported

1 = political banditry, sporadic terrorism, unsuccessful coups by/on behalf of the group

2 = campaigns of terrorism, successful coups by/on behalf of the group

3 = local rebellions: armed attempts to seize power in a locale

4 = small-scale guerrilla activity

5 = group members are involved in civil or revolutionary war that is not specifically or mainly concerned with group issues; group members are involved in international war that is not specifically or mainly concerned with group issues; other (i.e., events scored 6 in the Phase I rebellion measure)

6 = large scale guerrilla activity (distinguished from small-scale by more than 1,000 armed fighters carrying out frequent armed attacks over a substantial area)

7 = protracted civil war, fought by military units with base areas

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The other indicators were operationalized using the following variables from the Minorities at Risk, Phase I data, as described in Lee (1992):

Grievances: ALLGRIXX, an intensity-weighted sum of coded categories of political, economic, and social grievances.[15]

[14]The first author has argued that ethnopolitical conflict is usefully broken down into two components: communal protest and communal rebellion. Both forms or strategies of action are assumed to be driven by the same general processes, but it is anticipated that independent variables will have somewhat different influences on each. This implies modeling them differently (i.e., estimating the parameters of each separately) (Gurr 1993b). Because this study is concerned primarily with early warning, it focuses on rebellion as the type of ethnopolitical conflict for which risk assessments are most urgently needed. Subsequent analyses using Phase III annual data for 1985–95 will test hypotheses about conditions under which protest escalates into rebellion and the obverse process, the de-escalation of rebellion.

[15]As explained in Gurr (1993b, 173), "active grievances are the demands or grievances articulated by group spokesmen" and the project's "research strategy is to index grievances for the 1980s, based on 'statements of spokesmen, observers, and/or unambiguous actions by the group'." Hence, it is a direct—rather than indirect—measure of grievances.

Democratic Power: NDEM86 * NSCOPE86, the country's institu-
                             tional democracy score in 1986 (on a 10-cat-
                             egory scale) weighted by the scope of govern-
                             ment control of economic and social activity in
                             1986 (on a 9-category scale).[16]

International Rebellion: ICONREB80, the mean level of rebellion dur-
                             ing the 1980s by similar groups (e.g., ethno-
                             nationalists, indigenous peoples) in the same
                             geopolitical region.[17]

Group Coherence: COHEREX, a five-category judgmentally
                             coded scale of the extent of group cohesion.

Political Discrimination: POLDISX, a five-category scale ranging from
                             none, to neglect/no remedial policy, to policies
                             of exclusion/repression.

Economic Discrimination: ECDISX, a similar five-category scale.

Demographic Stress: DSTRESSXX, an intensity-weighted sum of
                             coded categories of demographic and ecologi-
                             cal disadvantages.

Lost Autonomy: AUTLOST, a composite measure that takes
                             into account the extent of group autonomy lost,
                             the prior status of the group, and the length of
                             time since the last change in group status.

Democracy: .   10 + (DEMOC – AUTOC).[18]

To estimate parameters we used a three stage least squares estimator
that treats the four equations as a single system (we verified that the system,
depicted in Table 4, is identified). The three stage least squares technique is
used because the theoretical model identifies linkages across the equations
that should be taken into account when estimating parameters; using ordi-
nary. least squares (OLS) in this situation gives inefficient estimates (i.e., the
OLS estimator produces higher asymptotic variances than the three stage
least squares estimator). The net result is to increase the probability of mak-
ing a type I error, i.e., falsely rejecting a variable. The three stage least
squares estimator is efficient because it corrects for cross-equation correla-

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[16] Data for the Democratic Power indicator are taken from the Polity II data set (Gurr, Jaggers,
and Moore 1989). Polity III (Jaggers and Gurr 1995) includes some revised scores for democracy
and autocracy for the 1945–86 era but does not have a measure of "scope," thus we used the Polity
II data to construct the indicator.

[17] Regions are demarcated on political and cultural grounds as well as strictly geographic
grounds. See Gurr (1993a, Appendix) for countries included in each region.

[18] Democracy (DEMOC) and autocracy (AUTOC) are the 1985 values contained in Polity III
(Jaggers and Gurr 1995).

Table 4. Estimated Coefficients for Ethnopolitical Rebellion

Independent Variables	Coefficient	Standard Error	R^2
Equation 1: Rebellion			.38
Constant	0.69	0.64	
Grievances	0.14	0.13	
Mobilization	0.86***	0.21	
Democratic Power	−0.04***	0.01	
International Rebellion	0.66***	0.16	
Equation 2: Mobilization			.13
Constant	−9.89***	1.70	
Group Coherence	1.06***	0.31	
Repression	1.09	0.61	
Grievances	0.91***	0.09	
Equation 3: Grievances			.26
Constant	5.35***	0.60	
Political Discrimination	−0.01	0.16	
Economic Discrimination	0.37*	0.19	
Demographic Distress	0.21***	0.06	
Lost Autonomy	0.34	0.26	
Past Repression	0.41***	0.11	
Equation 4: Repression			.05
Constant	−0.20	0.35	
Democracy	−0.01	0.01	
Past Repression Success	0.38***	0.13	

Note: The equations were estimated as a system using the three stage least squares estimator invoked by the 3SLS command in TSP (International) version 4.2a for Unix. There are 202 cases that contain no missing data (i.e., N = 202). One asterisk indicates that the parameter estimate is statistically significant using a one-tailed test, employing a 95% confidence level; two asterisks indicate statistical significance at the 97.5% confidence level; three asterisks indicate statistical significance at the 99% confidence level. The values in the table have been rounded up.

tions among the error terms.[19] In addition, because the data are cross-sectional, we employed the White (1982) technique for estimating a heteroskedastic-consistent variance-covariance matrix of the residuals.

Table 4 reports the estimated coefficients, their standard errors and the R^2 associated with each equation. Because we discuss risk assessments in some detail, little space is given to the interpretation of these results and their theoretical importance vis-à-vis debates in the field.[20]

Of the 14 independent variables in the four equations, only five failed to produce statistically significant parameter estimates. Hence, we have

[19] For technical accounts of the three stage least squares estimator see Kmenta (1986, 695–704) and Judge et al. (1988, 646–55).

[20] See Lindström and Moore (1995) for such a discussion.

substantial confirmation that our theoretical model identifies a number of important causal factors of ethnopolitical conflict. That said, the R^2's range from a low of .05 to a high of .38, leaving substantial room for improvement vis-à-vis explained variance. The primary goal in this study is not to maximize R^2, however, but test a theoretical model of ethnopolitical conflict and assess the model's ability to provide early warning forecasts.[21]

With respect to the rebellion equation, the mobilization, democratic power, and international diffusion variables all produce statistically significant parameter estimates in the hypothesized direction. We are primarily interested in the relationship between grievances and rebellion and mobilization and rebellion. That mobilization produced a statistically significant parameter estimate but grievances did not is consistent with the argument favored by the second author (i.e., grievances have an impact on mobilization, but not a direct impact on rebellion; see note 4). We also estimated the system using the product of grievances and mobilization as an additional independent variable, but when we did so, none of the three variables produced statistically significant parameter estimates and the R^2 for the rebellion equation dropped.[22] These results are generally similar to those reported by Gurr (1993b), who found that ethnopolitical rebellion is driven by grievances, rebellion, contagion from other rebellions, democracy, and the institutionalization of the state. Lindström and Moore (1995) found that ethnopolitical rebellion is driven by mobilization, contagion from other rebellions, democracy, and the institutionalization of the state.

Turning to the mobilization equation, it provides similar support for our hypotheses: group coherence, repression, and grievances all produce correctly signed, statistically significant parameter estimates. This provides support for a substantial portion of Lichbach's (1987) model of the repression-dissent nexus as well as Gurr's (1993b) claim that grievances and group coherence are primary determinants of ethnopolitical mobilization.

We next consider the grievances equation, for which we have three correctly signed and statistically significant parameter estimates: economic discrimination, demographic stress, and past repression. The political discrimination indicator and lost autonomy did not produce statistically significant

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[21]The low R^2 for the Repression equation is due in part to the skewed distribution of the variable: 172 cases score zero; one case scores one; two cases score two; 12 cases score three; seven cases score four; four cases score five; and five cases score six. The dependent variable in the Mobilization equation is similarly skewed.

[22]We followed the approach described by Jaccard, Turrisi, and Wan (1990, 31) and "centered" the interactive term to eliminate multicollinearity between the interactive term and the individual measures of grievances and mobilization. Centering the interactive term did not influence the results, thus leading us to accept the null-hypothesis that the interaction of grievances and mobilization do not influence ethnopolitical rebellion in this data set.

coefficients. The positive results for the grievances equation provide support for previous cross-sectional analyses of civil violence that relied on indirect measures of deprivation: measures of collective disadvantages are related to grievances which—as we reported above—in turn influence rebellion. That said, we prefer more fully specified models to the use of proxy indicators.

The negative finding for political discrimination is inconsistent with Gurr's (1993b) finding that political discrimination had an impact on two measures of grievances: political rights and political autonomy.[23] However, we used a composite measure of grievances, one that includes economic and social demands, which may account for the different finding. Further, our null finding vis-à-vis political discrimination is consistent with the null findings reported in Gurr's (1968) multiple regression analysis of political deprivation and internal war between 1961 and 1965 and Ellina and Moore's (1990) multiple regression analysis of political deprivation and three different measures of violent political conflict between 1959 and 1962 and 1974–77. The negative finding for lost political autonomy is also inconsistent with Gurr's analyses,[24] and we included it in the final equation because it did occasionally produce a statistically significant parameter estimate using different specifications and samples.

The final equation models repression as a linear function of the success of past repression and democracy. Success of repression is significant, democracy is not. The results contrast with those reported by Davenport (1995a, 1995b, 1996) and Gupta, Singh, and Sprague (1993) who report a strong negative relationship between democracy and negative sanctions. Our study differs from theirs in three respects, any or all of which may explain the disparate results. In prior studies countries are the unit of analysis, in ours it is ethnopolitical groups. Others measure repression using counts of negative sanctions;[25] we have coded the success of repression used against each group in previous episodes of ethnopolitical conflict. Finally, we test a more fully specified model of dissident-state interactions. Our results do highlight a need for further empirical work on the democracy-repression nexus, preferably using more fully specified models and better indicators of repression.

[23] Lindström and Moore (1995) used a composite measure of "objective disadvantages" that included both political discrimination and economic discrimination, among other indicators. As such, the results are not comparable.

[24] Lindström and Moore (1995) included lost autonomy in their measure of objective disadvantages, which did produce a statistically significant parameter estimate, but again the results are not comparable.

[25] Negative sanctions is an event variable found in *The World Handbook of Political and Social Indicators* (Taylor and Jodice 1983) which counts events like media censorship, curfews, and other political restrictions.

The results from the repression equation cannot be compared with those from the Gurr and Lindström and Moore studies; the latter did not estimate repression equations. However, we did test two other specifications of the repression equation: one included rebellion along with democracy and past success, a second included only rebellion and past success. When all three variables were included, not one produced a statistically significant parameter estimate, and rebellion failed to produce a statistically significant parameter estimate when it was included with past success. One interpretation is that states do not employ repressive strategies against ethnopolitical groups as a response to rebellion per se, but rather because repression has proven successful in the past. Put more starkly, states that succeed in using repression to quell challenges by ethnic groups are likely to use it again and without special regard for the level of threat posed by a group. Helen Fein reaches a parallel conclusion in her comparative study of post-1945 genocides and politicides: a substantial proportion of them have been committed by a handful of "repeat offenders" (1993).

In sum, using cross-sectional data on ethnic groups during the 1980s gives broad support for our theoretical model of ethnopolitical rebellion. While the variance explained was weak in two of four equations, the variables used generally produced statistically significant parameter estimates, thus supporting most of our hypotheses. However, we have larger aims than evaluating parameter estimates. The following section appraises the model's ability to generate risk assessment forecasts of ethnopolitical rebellion. We are not confident enough about the repression equation to use it to generate forecasts of repression, but the same methodology can be used when better data and models for repression are available.

Risk Assessments of Ethnopolitical Conflict in the 1990s

A great deal of interest focuses on the construction of "early warning systems" to give policymakers advance notice of impending civil conflict, particularly ethnopolitical conflict. Debates center on the best strategy for doing so. Policymakers tend to be most comfortable with field-based assessments of the kinds traditionally provided by in-country observers and regional desk officers. Specialists in information systems have advocated the use of batteries of early warning indicators (mostly of an aggregate data sort), or alternatively, the development of Web-based networks, for the communication of early warning messages from any and all sources.[26] The statistical model estimated above provides another, highly structured tool for making risk assessments, the term we prefer to early warnings. As the first

[26] For contributions to these debates see Duffy et al. (1995); the July, 1994 issue of *The Journal of Ethno-Development*, Volume 4, No. 1; and Gurr and Harff (1996, chap. 1).

author noted in the conclusion of a prior study: "The most challenging possibility is to use the models to forecast the onset of magnitudes of communal protest and rebellion among disadvantaged peoples who are just beginning to articulate their grievances" (Gurr 1993b, 190). Here we test the feasibility of this approach by reporting risk assessments of ethnopolitical rebellion for the early 1990s derived from the above theoretical model and compare them against the actual events of 1990–95.

The risk assessments are "theory driven" in that the statistical model used to produce them is derived explicitly from our theoretical model.[27] The technique has intuitive appeal and is technically very simple. The assumption is straightforward: the risk of future ethnopolitical conflict is greatest for communal groups facing circumstances that should lead to serious ethnopolitical violence, according to the statistical model, but did not do so in the 1980s. In other words, the theoretical model enables us to specify the conditions (more precisely, the values on the independent variables) which suggest that a given group is "ripe" for ethnopolitical rebellion or victimization. With respect to technique, we determined the residuals from the rebellion equation and then selected cases in which the residual was greater than one standard deviation below the mean (i.e., had a negative sign). Groups with residuals substantially above the mean (i.e., with more-than-predicted conflict in the 1980s) are not of interest for this analysis. This yields a list of ethnopolitical groups, shown in Table 5, that we infer have been at high risk of serious ethnopolitical conflict in the early 1990s. While this technique may not seem "simple" to policy analysts unfamiliar with regression analysis, it is in fact quite simple in comparison to many other techniques and can be performed rather easily on a wide array of statistical software packages. At a minimum, these risk assessments provide a bench mark against which the accuracy of forecasts derived by other procedures can be judged.

There are no comparable risk assessments against which we can assess the results of this study. The closest approximations are "watch lists" generated by researchers and analysts for United States and United Nations agencies. Those the first author has seen are confidential and therefore cannot be presented here; but in any case, they list high risk countries rather than ethnopolitical groups. Therefore, our results constitute a baseline for reference in future work by us and others. Given widespread interest in systematic early warning, we expect that alternative, empirically-based assessments will soon be available.

[27]For an alternative, more inductive approach to developing early warning models see Peter Brecke (1995). For more information on other projects, point a WWW browser to:

    http://www.ai.mit.edu/projects/iiip/ir/peace.html
and
    http://www.ccsr.uiuc.edu/People/gmk/Projects/UNCMCW/

Table 5. Early Warning Forecasts for Rebellion
in the Early 1990s

Ethnic Group (Country)	Rebellion Residual	Rebellion in 1980s
Berbers (Morocco)	−8.44	0
Palestinians (Jordan)	−5.81	0
Kadazans (Malaysia)	−5.45	0
Turks (Bulgaria)	−5.11	0
Berbers (Algeria)	−4.68	0
Aboriginal Taiwanese (Taiwan)	−4.36	0
Blacks (Brazil)	−3.66	0
Admadis (Pakistan)	−3.58	0
Indian Tamils (Sri Lanka)	−3.57	0
Native Highlanders (Ecuador)	−3.46	0
Malays (Singapore)	−3.41	0
Vietnamese (Cambodia)	−3.31	0
Shi'is (Saudi Arabia)	−8.17	1
Tibetans (China)	−7.23	1
Native Highlanders (Bolivia)	−5.36	1
Diola (Senegal)	−3.84	1
Baluchi (Pakistan)	−6.35	2
Montagnards (Vietnam)	−3.91	2
Tutsi (Rwanda)	−4.47	4
Palestinians (Vietnam)	−3.60	4
Nagas (India)	−5.34	5
Sikhs (India)	−3.43	8

Note: Only cases with a residual greater than one standard deviation below the mean (i.e., −3.25) are listed.

Our approach to identifying groups at risk needs to be coupled with ongoing assessment to maximize its utility for policy and analytic purposes. That is, the groups identified here should be closely monitored and evaluated with special reference to changes in the variables specified in the theoretical model. Many of the key variables change, often because of shifts in government structure and policy. Because of such changes we do not expect that the high risk cases identified here, on the basis of conditions in the 1980s, should *necessarily* have experienced ethnopolitical rebellion in the 1990s. As we show below, most of our unrealized forecasts of rebellion are readily attributable to changes in our theoretically-specified variables. One important general implication is that even in high risk situations, states and their ethnopolitical challengers are not locked into an inevitable cycle of violence: compromise and accommodation often are possible.

Table 5 identifies 16 groups with high potential for rebellion that did not engage in significant rebellion during the 1980s.[28] Another six groups engaged in low to medium levels of rebellion but had characteristics that, according to the model, should have led to significant conflict escalation. In sum, then, the model identifies 22 groups in 21 countries that should have been on a "watch list" for close monitoring. We know, writing in mid-1996, the extent of conflicts involving each of the 22 groups in 1990–95. Three kinds of results are shown in Table 6: their 1990–95 scores for rebellion and protest, and notes on each group's current political circumstances. We first comment on eight cases where serious conflict either began, persisted, or escalated. Then we discuss high risk groups that relied on protest rather than rebellion, gained from accommodation, or were contained by repression.

Groups with Significant Rebellions

Major episodes of rebellion began or intensified in four of the 22 groups, lesser rebellions in four others. These cases are "correct positive" forecasts. Major new conflicts erupted among the Palestinians in Israel's Occupied Territories, the Nagas of northeast India, and the Diola in Senegal's Casamance province. These episodes had no recent, violent precursors, though in retrospect one can identify antecedent political events, including some episodes of protest. Two other major episodes of rebellion escalated from the late 1980s to the early 1990s; the protagonists were Tutsi exiles from Rwanda and militant Sikhs in India. Minor instances of rebellion occurred among indigenous peoples in Bolivia and Baluchi in Pakistan; most of their political energies were channeled into escalating protest. For the Montagnards of Vietnam, low 1990s levels of protest and rebellion were the declining phase of more intense conflict during previous decades.

These results suggest the value of this approach to risk assessment. A "naive" approach to forecasting would predict that previous ethnopolitical rebellions would continue but no new ones erupt. In three of the above eight cases (Tutsi, Sikhs, Montagnards) rebellion was a continuation of past trends, in the other five cases the rebellions were new. These five "correct positives" would have been missed by a simple "persistence" model. They can be compared with 14 "false positives," the cases in which our analysis identifies a potential for rebellion that has not yet been realized in the 1990s.

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[28] Two other groups with high rebellion residuals are excluded from the table and this discussion: the Lugbara/Madi in Uganda and the Santals in India. Both have been dropped from Phase III of the Minorities at Risk study because evidence on their status in the 1980s and 1990s is very limited and raises doubts about the reliability of their codings for the 1980s (i.e., the Phase I codings).

Table 6. Outcomes for Groups with High Forecasts
for Rebellion in the Early 1990s

Ethnopolitical Group and Country	Rebellion 1990–95[a]	Protest 1990–95[b]	Political Conflicts and Status in 1990s
Groups with New or Persisting Rebellion in the 1990s			
Tutsi (Rwanda)	13	5	Invasion by Tutsi exiles of Uganda-based Rwandan Patriotic Front preceded 1994 genocide against resident Tutsis by Hutus.
Sikhs (India)	12	2	Repression of militants, co-optation of moderates temporarily dampened conflict in early 1990s.
Nagas (India)	8	4	Militant Nagas in escalating rebellion oppose moderate Nagas who control state government.
Diola (Senegal)	8	4	Serious regional rebellion from 1992 to 1995, regime alternates between repression and negotiation.
Palestinians (Israel)	4	12	Massive, violent protest (Intifada) against Israeli occupation from 1989 through 1994.
Baluchi (Pakistan)	2	8	Electoral contention over control of regional government, participation in national government.
Indigenous High-landers (Bolivia)	2	5	Group mainly uses protest techniques of other indigenous peoples; government concessions.
Montagnards (Vietnam)	2	2	Resistance by tribal peoples to incorporation into communist system largely ended by the 1990s.
Groups with No Rebellion, but Some Political Gains in 1990–95			
Berbers (Algeria)	0	12	Mobilization limited to promotion of cultural interests and protection against Islamist attacks; some cultural concessions by secular government.
Indian Tamils (Sri Lanka)	0	10	Plantation workers who do not support rebellion by Sri Lankan Tamils but pursue interests through labor protest, representation in assembly.
Indigenous High-landers (Ecuador)	0	8	Country-wide mobilization and protest marches in 1990s lead to electoral representation and substantial concessions by democratic regime.

Table 6. Outcomes for Groups with High Forecasts
for Rebellion in the Early 1990s *(continued)*

Ethnopolitical Group and Country	Rebellion 1990–95[a]	Protest 1990–95[b]	Political Conflicts and Status in 1990s
Palestinians (Jordan)	0	8	Expanding rights to participate in electoral politics may have defused potential for rebellion.
Turks (Bulgaria)	0	6	Granted full political rights by post-communist government, successful in electoral politics.
Aboriginals (Taiwan)	0	6	Access to political process and development programs offered by democratizing regime.
Kadazans (Sabah, Malaysia)	0	5	Conflict potential due mainly to contention between Sabah parties and governing national coalition, largely resolved in early 1990s.
Blacks (Brazil)	0	4	Significant 1990s increase in mobilization by previously quiescent group using opportunities available in a democratic system.
Malays (Singapore)	0	4	Government tightly controls opposition activity, gives ample opportunities to cooperative Malays.
Berbers (Morocco)	0	2	Mobilization limited to promotion of Berber cultural interests; some government concessions.
Groups with No Rebellion in 1990s, but Subject to High Repression			
Ahmadis (Pakistan)	0	4	Religious minority is restricted because beliefs are "heretical," political activities are defensive.
Tibetans (China)	0	4	Severe repression of Tibetan political and cultural activism; Han settlement escalating.
Shi'is (Saudi Arabia)	0	2	Close political control by Saudi security services; relatively affluent because many are oil workers.
Vietnamese (Cambodia)	0	0	Powerless immigrant minority, many fled to Vietnam in face of discrimination and attacks.

[a]Sum of the highest scores for 1990–92 and 1993–96 on a scale of 0 to 7. The rebellion 1980s score (Table 5) is the sum of the highest scores for each of two successive five-year periods, 1980–84 and 1985–89 on a scale of 0 to 5.
[b]Sum of highest scores for 1990–92 and 1993–96 on a scale of 0 to 6.

Groups that Gained from Protest and Accommodation

Seven high risk groups have gained from political and policy changes. Most gains occurred in democratic or democratizing regimes and were preceded or accompanied by an increase in protest. Groups that gained include the Turkish minority in post-communist Bulgaria, indigenous peoples in Bolivia and Ecuador, Aboriginal peoples in Taiwan, the Berbers in Morocco and (to a lesser extent) Algeria, and Palestinians in Jordan. In terms of the theoretical argument presented here, a decline in group grievances and an increase in democratic power deflected or postponed rebellion in these cases. The general implication is that accommodation (or the prospect of future reforms) simultaneously reduces the chances for rebellion and reinforces collective decisions to rely on protest. We offer two examples:

> (1) The Turkish minority in Bulgaria has been freed of the discriminatory restrictions imposed on it by the former communist government, though some social discrimination remains. A predominantly Turkish party has taken advantage of opportunities provided by the transition to democracy to make substantial electoral gains and to participate in the governing coalition. The conditions that six years ago predicted to rebellion have been largely eliminated.
>
> (2) The indigenous peoples of highland Bolivia typify Native Americans in most of Latin America in several respects. They are seriously disadvantaged, and they mobilized broadly beginning in the late 1970s. They are substantially influenced by global indigenous rights movements and rely almost entirely on nonviolent action (though one group carried out bombings in the early 1980s). The new (post-1982) democratic government of Bolivia made substantial efforts in the early 1990s to meet indigenous demands for land and incorporation in the political system: an indigenous leader has served since 1993 as the country's vice-president. These gains, and similar gains among indigenous people in Ecuador, have substantially reduced the potential for ethnorebellion in both countries.

A number of other high risk groups pursue collective interests in the electoral arena of democratic or quasi-democratic societies without notable recent successes. For the Kadazans (the indigenous people of the Malaysian province of Sabah), the Indian Tamils of Sri Lanka, and the Malays of Singapore, electoral outcomes are sufficiently promising, and the costs of violent opposition high enough, that the rebellion option is thus far foreclosed. Afro-Brazilians, numerically one of the largest minorities in the world, only recently have begun to pursue collective objectives.

Groups Contained by Repression

Five groups are subject to repressive political control which, we infer, has made it prohibitively costly for the groups to mobilize for political action. The Ahmadis in Pakistan and Vietnamese in Cambodia are numerically small and have virtually no capacity to mobilize resistance. The latter, for example, are actively resented by many Cambodians because Vietnam's control of the country did not end until the late 1980s. Their only course, taken by many, has been to flee to Vietnam or other places of refuge. The Montagnards, after 30 years of warfare, have lost will and capacity to resist communist Vietnamese control.

The greatest future risks of ethnopolitical rebellion, in our view, are posed by the Tibetans (China) and the Shi'is (Saudi Arabia). Both are relatively large, cohesive, and have a history of active political resistance. Tibetans are the most severely repressed of all minority peoples in China and likely to be the first, along with the Muslim Turkomen of Xinjiang province to the north, to rise in rebellion against a weakened regime in Beijing.[29] The Shi'is, who live mainly in Saudi Arabia's region adjoining the Gulf, are subject to pervasive economic and political discrimination (e.g., in allocation of development funds, access to government employment and the military). Their political activities are closely controlled, in part because the government assumes they are susceptible to Iranian or Hizbollah influence and potentially disloyal. Their principal political organization shifted in 1993 from militant opposition in exile to reformist opposition within the country, with the agreement of the Saudi government. The potential for Shi'i rebellion thus has been limited by a combination of concessions and control. If the Saudi monarchy should weaken, for whatever reason, rebellion is likely. They are, for example, a potentially sympathetic host population for groups that have attacked United States military personnel in the country.

Conclusion

This study uses coded data on 202 politically-active communal groups from the 1980s to estimate a four-equation model of the extent of rebellion by ethnopolitical groups that includes variables at group, state, and international system levels. The three stage least squares analysis uses new indicators of state repression, group mobilization, and rebellion. The equations provide empirically and theoretically acceptable accounts of the sources of ethnopolitical grievances and rebellion; variance in group mobilization and state repression is less well explained. We then assess the risks of future

[29] The Tibetans and East Turkomen have a very high risk of rebellion and repression in the late 1990s, according to an early warning analysis of Asian minorities that makes use of a risk profile approach (Gurr and Harff 1996, chap. 2).

ethnopolitical rebellion by examining the negative residuals from the rebellion equation.

We contend that the analysis presented here demonstrates that this approach to assessing risks can become a useful tool in determining where to invest scarce monitoring resources. This general statistical modeling approach cannot provide us with predictions of ethnopolitical violence, but coupled with monitoring resources, it identifies both risky cases and the variables that need to be observed. Of course, this study provides but one test of the model. In future work we plan to use the Phase III data of the Minorities at Risk project (which cover the 1990–95 period) to make risk assessments for the mid to late 1990s.

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