DIVERSITY, DISPARITY, AND CIVIL CONFLICT IN FEDERAL STATES

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INTRODUCTION

IN August 2005 the Indonesian government and the Islamist Free Aceh Movement, which for nearly thirty years had fought for the Aceh province’s independence from Jakarta, signed a peace accord in which the rebels agreed to give up their armed struggle in return for the right to establish a form of regional self-government within the Indonesian state. In October of the same year the Iraqi government ratified a draft constitution that envisioned federalism as a means to accommodate the country’s different ethnic and religious groups. Similarly, in more culturally homogenous societies, governments have pursued federalism as a means to address regional conflict, as occurred in Colombia, or have decentralized existing federations to accommodate sharp regional differences, as occurred in Brazil. Likewise, decentralization and regional autonomy measures have figured prominently in debates about how to contain conflict in Afghanistan, Angola, Bosnia, Cyprus, Mozambique, Nigeria, South Africa, and Sri Lanka. While all of these states have long lists of issues to sort out about how to organize the division of powers between tiers of government and how to achieve domestic peace, policymakers in each of them have turned to some form of federalism or decentralized governance as a means for managing conflict between the central government and subnational groups. This study is about the diverse capacity of states—federal or decentralized states in particular—to contain such struggles.

*The authors thank Nancy Bermeo, Scott Gates, Julia Gray, Steve Hanson, Simon Hug, Luca Mancini, Joel Migdal, Nicholas Sambanis, Umut Aydin, Mike Ward, Steven Wilkinson, three anonymous reviewers, and seminar participants at the Montreal Research Group on Ethnic Conflict; Éric Bélanger’s seminar on nationalism and federalism in Canada, McGill University; the Programme Paix et sécurité internationales at the Institut québécois des hautes études internationales, Laval University; and the Norwegian Annual Political Science Conference (2005) for their helpful comments. This research was conducted with the financial support of the National Science Foundation (SES-0241523 and SES-0517153) and the Chr. Michelsen Institute, Bergen.

World Politics 59 (October 2006), 1–50
Scholars have theorized and state leaders have tried out different ways to contain conflict in internally divided states whether those divisions are a result of ethnic, territorial, or economic cleavages. The theoretical justification for federalism, or decentralization, is based on the combination of shared rule and self-rule: federalism offers the potential to retain the territorial integrity of the state while providing some form of self-governance for disaffected groups. Thus, a growing literature has emphasized the merits of federalism as “peace preserving.” Notable, however, is a set of countervailing arguments that include diametrically opposed hypotheses and empirical research reaching very different conclusions. While some argue that federal institutions reduce the likelihood of armed conflict by providing subnational challengers with institutional channels for voicing their demands, others suggest that such institutions may encourage nationalist mobilization and/or separatist conflict. Moreover, while federal states may be less likely than unitary states to experience political violence, contemporary regional conflict in the Indian, Nigerian, Colombian, and Russian federations and historic regional violence in the U.S., Argentine, and Venezuelan federations suggest there are major exceptions to the peace-preserving federal ideal.

Given this empirical diversity and theoretical conflict, our study investigates the conditions under which federalism is peace preserving and those under which it is not. The study is not an investigation of whether federations are more peaceful than unitary systems. While researchers have rightfully investigated federal versus unitary distinctions, there has been little systematic attention to federalism’s diverse capacity to ameliorate—or exacerbate—regional and ethnic cleavages, and that is the focus here. This study rejects the notion that federalism can be a one-size-fits-all solution to ethnic and other forms of intra-state conflict. Instead, it proposes a vision of federalism deeply rooted in the specific features of diverse societies.


2 Recent research that has begun to address this question focuses on the political-economic conditions for self-determination movements and the degree to which a country’s minority population is concentrated in one province. See Nicholas Sambanis and Branco Milanovic, “Explaining the Demand for Sovereignty” (Manuscript, Department of Political Science, Yale University, New Haven, May 2004); and Henry Hale, “Divided We Stand: Institutional Sources of Ethnofederal State Survival and Collapse,” *World Politics* 56 (January 2004).

3 In this regard, our study is consistent with “state in society” approaches. See Joel S. Migdal, *State in Society: Studying How States and Societies Transform and Constitute One Another* (Cambridge: Cambridge University Press, 2001).
on how these institutions respond to the characteristics of the societies they govern. Specifically, we hypothesize that the degree to which fiscal decentralization, intergovernmental fiscal transfers, and political copartisanship across tiers of government can contribute to peace depends on a society’s level of wealth and its ethnic composition.

To test the study’s hypotheses, we conduct a large-N analysis of political protest and violence across twenty-two federal states from 1978 to 2000 using newly collected data. In this article we first provide an overview of the incongruous literature on conflict management as it relates to federalism. Next, we show how many of the conflicting hypotheses in the literature result from a failure to consider the diverse social makeup of federations, and we present hypotheses that pay attention to the interaction effects between federal institutions and social underpinnings. In the third section we discuss our methodological approach and interpret the empirical findings. We find evidence of important interactions among several factors—the distribution of income across regions, the ethnic makeup of society, fiscal decentralization, fiscal transfers, and intergovernmental partisanship—that shape the likelihood of conflict in federal societies. There are four key findings. First, fiscal decentralization increases the likelihood of ethnic rebellion and ethnic protest in contexts where there are high levels of interregional inequality. Second, large, encompassing national governing parties increase the likelihood of armed conflict, ethnic rebellion, and ethnic protest when minority regions are excluded from those parties. Third, interregional inequality increases the likelihood of ethnic rebellion when ethnic groups are regionally concentrated. Fourth, increased fiscal transfers by central governments to decentralized governments serve to reduce the likelihood of ethnic protest when ethnic groups are regionally concentrated.

Finally, we conclude by suggesting where research might go next, emphasizing the value of complementary case-study work to further examine the causal processes underpinning our findings.

**Conflict Management and Federalism**

In the academic literature on civil conflict, federalism has received opposing reviews. A number of scholars and policymakers have come to view decentralized governance, territorial autonomy, or some kind of federal arrangement as useful strategies for managing intrastate conflict. By definition, federalism includes autonomy for a state’s subunits while leaving international borders intact. According to William Riker’s classic definition:
A constitution is federal if 1) two levels of government rule the same land and people, 2) each level has at least one area of action in which it is autonomous, and 3) there is some guarantee (even though merely a statement in the constitution) of the autonomy of each government in its own sphere.4

In combining regional self-rule and shared governance, federalism may represent a compromise between regional groups that seek self-determination and/or protection of their rights and the central leadership of the state, which is reluctant to give up territory and power. Though the exact federal design is typically unspecified, researchers increasingly argue that federalism can peacefully accommodate heterogeneous interests by decentralizing key policies and thus providing a stake for decentralized elites in the maintenance of the existing state.

Though much of this research is focused on the capacity of federalism to address distinctly ethnic tensions, a substantial body of work has linked decentralized governance with peace in otherwise divided societies. In Brazil and Argentina, research has linked federalism to the sustainability of states in which there are heterogeneous economic endowments and extreme levels of regional inequality.5 In Colombia, the decentralizing reforms of the early 1990s were explicitly designed to address a civil war rooted in economic and ideological grievances, not in ethnic divisions.6 Similarly, many scholars have emphasized the importance of federalism for the capacity of the thirteen colonies to form the United States and for the sustainability of the U.S. in the face of substantial regional divergence in modes of economic production, levels of income, and ideology.7 In Canada, federalism accommodates linguistic differences as well as regional interests, as differences in size, wealth, and demography create strong regional preferences and loyalties.8 The same goes for Russia. While the federal system was an inheritance from the USSR’s “affirmative action empire,”9 in the 1990s it

became a means to manage regional demands from nonethnic as well as ethnic regions. Many of the forty-two bilateral power-sharing agreements Boris Yeltsin signed in that decade were concluded with regional elites in nonethnic regions and concerned fiscal and economic matters. According to former Vice Premier Sergei Shakhrai (1992–94), who was in charge of formulating a number of the accords, this feature of Russian federalism helped “assemble” the Russian regions and stem centrifugal tendencies.

Similar claims are made in research on ethnically diverse societies. André Bächtiger and Jürg Steiner, for example, point to how Switzerland’s federal arrangements have helped meet the demands of religious and linguistic groups for autonomy over policy areas such as education, religion, and language, thus alleviating cultural grievances. Paul Brass and Atul Kohli argue that federalism in India, by embracing linguistic diversity, has helped hold this vast and heterogeneous state together. Nancy Bermeo finds that federal regimes in general do better than unitary regimes in terms of accommodating ethnic armed rebellion, minority discrimination, and grievances. These findings echo others in suggesting that decentralized governance reduces the incidence of nationalist conflict by funneling ethnic collective action into forms of protest considered within the bounds of normal politics. Indeed, Arend Lijphart points to regional autonomy (if not federalism) as part of successful power sharing. To these federal advantages one can add the check that federal institutions provide on the central government—a significant concern of regional minorities fearful of

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11 André Bächtiger and Jürg Steiner, “Switzerland: Territorial Cleavage Management as Paragon and Paradox,” in Amoretti and Bermeo (fn. 8), 34–35.


13 Bermeo (fn. 1), 98–100.


being swept aside by national majorities. David A. Lake and Donald Rothchild argue that with this kind of check federal institutions can contain conflict by mitigating the ethnic security dilemma. Unifying much of this research on peace-preserving federalism is a sense that federal institutional engineering offers the prospect of reducing conflict around territorial divisions—be they based on social, economic, ethnic, or cultural features.

Whereas this branch of the literature points to federalism as a cure for internal conflicts, others argue that federalism may be more of a curse for intrastate peace and stability. Federal arrangements provide regional groups the opportunity both to collect resources and to create a network of institutions through which to mobilize—a dynamic observed in ethnically homogenous and heterogeneous societies alike. Analyses of the preconstitutional violence and the Civil War in the United States, for instance, emphasize the substantial authority and bureaucratic capacity of state governments and the consequent difficulty of coordinating national responses to regional challenges. Pablo Spiller and Mariano Tommasi provide a similar account of Argentina, where a highly decentralized federal constitution has generated sharp constraints on policy change, thereby encouraging short political time horizons on the part of provincial politicians and contributing to decades of constitutional instability and occasional violence. According to Kent Eaton, decentralization in Colombia has served to increase financing for rebels, further eroded the capacity of the central government, and contributed to the creation of “parallel states” on the ideological left and right within the country. In an analogous context, contemporary debates regarding federalism in Italy show how the decentralization of the early 1970s fostered centrifugal forces, particularly in the relatively rich north.

18 Amoretti and Bermeo (fn. 8).
21 Kent Eaton, “Armed Clientelism: How Decentralization Complicated Colombia’s Civil War” (Manuscript, Politics Department, University of California-Santa Cruz, 2005).
22 Ugo M. Amoretti, “Italy: Political Institutions and the Mobilization of Territorial Differences,” in Amoretti and Bermeo (fn. 8).
A number of scholars suggest these problems are particularly acute in ethnically divided societies. Many see the ethnofederal structures of the Soviet Union as key to understanding its demise. The Soviet Union, writes Ronald Grigor Suny, was an “incubator of new nations” that helped form the nationalist movements that eventually killed it. Valerie Bunce argues that the federal structures of the Soviet Union, Yugoslavia, and Czechoslovakia contributed to the collapse of those states. The federal systems encouraged shifts in power from the center to the periphery, which provided nationalist challengers with resources for mobilization. The result was breakdown along regional lines. Specifically, Bunce points to how the combination of ethnofederal structures, economic decline, and state repression promoted the construction of subnational consciousness. She explains that “in the absence of federalism, geographically concentrated minorities seem to be less prone to either want to leave the state or … to succeed in doing so.”

Similar to this long-standing debate on the capacity of federalism to prevent conflict, recent research shows a divergence of findings with regard to federalism in postconflict settings. Examining how provisions of territorial decentralization in thirty-eight peace settlements (1945–98) affect postconflict reconciliation, Matthew Hoddie and Caroline Hartzell find that they appear to strengthen the immediate postwar peace and encourage the holding of transitional elections. While acknowledging such short-term benefits, however, Lake and Rothchild...
point out that there are few instances of post–civil war institutionalization of territorial decentralization. In other words, whether there are any long-term benefits of postconflict territorial autonomy is questionable.

Our study picks up on the debate about federalism as peace preserving, but rather than focus on whether federal institutions contribute to intrastate peace, we investigate the conditions under which they are peace preserving. We do so for two reasons. First, as currently construed, the debate over the pros and cons of federalism is indeterminate—both sides make reasonable theoretical claims and can point to some evidence in support of their propositions. Second, as Figure 1 indicates, over the past decades some federations have been entirely free from internal conflict, others have gone through periods of significant violent struggle, and still others have experienced occasional uprisings. Thinking about federalism as either a cure or a curse for internal peace and stability does not allow us to investigate these differences among federal states.

We argue that the main lesson to be drawn from the divergent views on federalism is that there is no single federal formula for peace in divided societies. In order to understand the conditions under which federalism works, we need to take into account the federal arrangements themselves as well as underlying societal traits, in particular, interregional inequality and ethnic diversity. Thus, we need to theorize how particular features of federations—their level of fiscal decentralization and partisan integration, for instance—interact with social characteristics to shape the likelihood of conflict. The next section specifies these key relationships.

HYPOTHESES ABOUT FEDERALISM AND CONFLICT

If debates in the conflict literature over the value of federal versus unitary approaches to managing ethnic and regional divisions have made

27 David A. Lake and Donald Rothchild, “Territorial Decentralization and Civil War Settlements,” in Roeder and Rothchild (fn. 26).
28 For work with a similar argument but focused largely on political parties, see Dawn Brancati, “Decentralization: Fueling the Fire or Dampening the Flames of Ethnic Conflict or Secessionism,” International Organization 60 (July 2006). In general, this is a research agenda that is promoted by Amoretti and Bermeo (fn. 8), but they do not systematically examine the conditions under which peace-preserving federalism works.
29 Nor does a cure versus curse debate allow us to investigate the track record of conflict within federal states. We know, for example, that the conflict score for India is due to conflicts primarily in Assam, Jammu and Kashmir, Mizoram, Nagaland, Punjab, and Tripura—just a few of India’s thirty-five states and union territories. Likewise, Russia’s conflict score is due to conflicts and protests mainly in Buryatia, Chechnya, Dagestan, Ingushetia, Karachay-Cherkessia, Sakha, Tatarstan, and Tuva—a small share of Russian’s eighty-nine regions.
insufficiently precise claims regarding the conditions under which institutional arrangements are likely to achieve peaceful outcomes, the literature on federalism is similarly inadequate. Indeed, generations of researchers on federalism have been preoccupied with prescribing a set of design principles to achieve various aims, be they stability, economic growth, or democracy. Since James Madison’s oft-quoted argument in Federalist 45 that federal powers “will be exercised principally on external objects, as war, peace negotiation, and foreign commerce …” and that state power would “extend to all the objects, which, in the ordinary course of affairs, concern the lives, liberties and properties of the people; and the internal order improvement and prosperity of the state …,” researchers have sought to allocate the powers of national and regional governments believing that there is some optimal federal design that is not dependent on the social, economic, and cultural characteristics of a given society. Thus, in his classic treatment K.C. Wheare prescribes a long list of shared powers between national and regional governments.30

More recently, Barry Weingast argues that federalism protects markets to the degree that subnational governments are in charge of economic policies and face hard budget constraints while Mikhail Filippov, Peter Ordeshook, and Olga Shvetsova advocate a unifying, national party system as a means to coordinate peaceful federal bargaining.

We consider this tendency in the federalism literature to be as problematic as the debate over the pros and cons of federalism in managing conflict. Given the tremendous diversity of issues facing nations, we agree with Brij Mohan Sharma that it is impossible to prescribe a priori the distribution of powers between national and subnational governments in any given case. In this regard two issues are prominent. First, the appropriate design principles are certain to vary depending on the end one seeks. The institutions ideally suited for subnational fiscal discipline are likely different from those that foster peace in a regionally divided society. Second, the institutions likely to foster peace are dependent on the ethnic, economic, and policy challenges facing a given nation. While one set of institutions might promote peace in a particular state, they might do just the opposite in a nation with different underlying social, political, and economic characteristics. Fiscal decentralization, for instance, may be optimal in a society characterized by low levels of equality, but it is likely to foster conflict where high levels of inequality exaggerate regional differences.

Consistent with these insights, we develop a series of conditional hypotheses that account for why some federations seem to contribute to peace while others do just the opposite. We build on and follow the recommendations of Donald Horowitz, who in his seminal work suggests that it is particularly important to consider how federalism works in ethnically homogenous versus heterogeneous settings and points out that regional income levels may influence devolution as a conflict management tool. In particular, we focus on the interactions between interregional economic inequality, the fiscal system, the party system, and

32 The authors recognize that implementation of any political institutions requires careful consideration of how those institutions may interact with other institutions and their economic/cultural environment. However, the authors focus on institutions, maintaining that even though the “supergame” of norms, conventions, and culture matters, it “lies outside the realm of conscious design so that we can focus on formal rules and the question of whether choices exist that encourage federal stability regardless of culture.” Mikhail Filippov, Peter C. Ordeshook, and Olga Shvetsova, *Designing Federalism: A Theory of Self-Sustainable Federal Institutions* (Cambridge: Cambridge University Press, 2004), 161.
ethnic divisions in shaping the likelihood of conflict. In developing the conditional hypotheses, we discuss how each of their component parts has been subject to theorizing in the intrastate conflict and federalism literatures and then explain how those components are likely to interact to produce different outcomes in diverse settings.

**Ethnic Diversity and Inequality**

A large literature focuses on the role of national and ethnic identities as a cause or component of intrastate conflict. Some argue that ethnicity contributes to conflict because of emotions such as long-standing hatred\(^{35}\) or resentment toward ethnic groups different from one’s own,\(^{36}\) or suggest that fear-driven security dilemmas lead ethnic groups to resort to violence as a means to protect the existence of their group.\(^{37}\) Others point to how political leaders may stir up hostility among different ethnic groups (“play the ethnic card”) in order to keep or acquire power\(^{38}\) and use myths and symbols to justify such hostility.\(^{39}\) Still others again maintain that ethnic conflict rests on social psychology and favoritism for one’s own group.\(^{40}\) Regardless of the specific mechanisms, however, in nearly all cases ethnic identity is hypothesized to help solve the collective action problems associated with protest and organized violence. In particular, this seems to be the case when ethnic minorities are territorially concentrated and the territory is seen as indivisible.\(^{41}\) Indeed, a serious debate continues in the ethnic-confl ict literature on the pros,\(^{42}\) cons,\(^{43}\) and conditions under which\(^{44}\) ethnofederalism might funnel the capacity for ethnically based collective action into nonviolent politics.

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\(^{42}\) Bermeo (fn. 1).

\(^{43}\) Bunce (fn. 23); Valerie Bunce and Stephen Watts, “Managing Diversity and Sustaining Democracy: Ethnofederal versus Unitary States in the Postcommunist World,” in Roeder and Rothchild (fn. 26); Philip Roeder, “Power Dividing as an Alternative to Ethnic Power Sharing,” in Roeder and Rothchild (fn. 26).

\(^{44}\) Hale (fn. 2).
In contrast, arguments of a more materialist nature posit that it is not identity but access to resources and wealth that causes conflict. In particular, income inequality may create economic grievances and mobilization of the poorer people. In Ted Robert Gurr’s classic formulation, collective disadvantages and relative deprivation are at the heart of violent political mobilization. Departing from this relative deprivation mechanism in a later work, Gurr finds that minority group discrimination does contribute to conflict. Others argue that a particularly wealthy region in an unequal society may find subsidizing the rest of the country burdensome and hope to improve its economic lot by escaping via secession—itself likely to promote conflict. Thus, redistributive demands can come from either rich or poor regions in highly unequal settings.

In much of the literature, these mechanisms are conceptualized as competitors—conflict is motivated by either identity- or material-based considerations. In many settings the two often intersect, however, and there is reason to expect their effects to condition each other. Indeed, Horowitz argues that very often the initiators of ethnic violence are relatively economically “backward” ethnic groups and that relatively “backward” regions are the ones that tend to seek secession. Likewise, the basic premise of the Minorities at Risk project is that ethnic groups are “at risk” only to the degree that they are discriminated against economically, socially, culturally, or politically, and Frances Stewart’s work on “horizontal inequality” has inspired research on how inequalities in economic and political resources between culturally defined groups may influence conflict.

45 Edward N. Muller and Mitchell A. Seligson, “Inequality and Insurgency,” American Political Science Review 81 (June 1987).
47 Gurr (fn. 14).
48 Alberto Alesina, Enrico Spolare, and Romain Wacziarg, “Economic Integration and Political Disintegration,” American Economic Review 90 (December 2000); Sambanis and Milanovic (fn. 2). In two recent large-N studies of civil war, Fearon and Laitin and Collier and Hoeffler find no support for the proposition that inequality contributes to conflict. See James D. Fearon and David A. Laitin, “Ethnicity, Insurgency, and Civil War,” American Political Science Review 97 (February 2003); and Paul Collier and Anke Hoeffler, “Greed and Grievance in Civil War,” Oxford Economic Papers 56 (October 2004). The problem with these findings, however, is that the empirical measure for inequality is national Gini coefficients, which measure inequality at an individual level, while the theoretical arguments concern group-level inequality.
49 Horowitz (fn. 34), chap. 4.
50 Gurr (fn. 14).
52 Luca Mancini, “Horizontal Inequality and Communal Violence: Evidence from Indonesian Districts,” crise Working Paper, no. 22 (Oxford: Oxford University, November 2005), 41; Gudrun
If ethnic groups are geographically concentrated and ethnicity helps solve the collective action problems associated with pressing demands on the government, such collective action is more likely to occur as the grievances that spark collective action mount. More precisely, high levels of inequality have two effects that are likely to contribute to grievances. First, high levels of inequality exacerbate the redistributive claims that minorities are likely to make on the central state. Second and consistent with current models of democracy, as the prospective costs of such redistribution climb, the central government may be less likely to meet them. Ethnicity is likely to accentuate these dynamics. Consistent with the literature on the capacity of ethnic groups to facilitate collective action, ethnic elites are likely to have an easier time organizing initial demands for the central authorities to ameliorate inequality than nonethnic elites. Moreover, if political elites at the national level see ethnically based claims as threatening, the central government may be prone to either ignore them or respond with force. Ease of collective action facilitates countermobilization in ethnic minority regions and escalation to violence becomes more likely. As Nicholas Sambanis notes, most separatist violence emerges as a result of central refusal to respond to initially moderate demands on the part of minorities.

Though large-N empirical work on federal and unitary cases has found little evidence to support such an interaction effect, there is reason to believe that federalism may politicize both inequality and ethnic diversity in a way absent in unitary systems. Research in economic geography demonstrates that populations, production, and poverty are often regionally concentrated. Take the example of inequality. While inequality might become an important political issue in a unitary system, it is unlikely to have particular geographic salience since geographic units have no formal input into the policy process. In contrast to unitary systems, federalism is built on the premise of providing voice to geographically concentrated issues. Thus, in a federation, the issue


Toft (fn. 41); Barbara Walter, “Building Reputation: Why Governments Fight Some Separatists but Not Others,” American Journal of Political Science 50 (April 2006). According to both authors, government’s willingness to accommodate ethnic challengers depends on the number of potential ethnic challenges in a country. The higher the number of potential challengers, the less likely governments are to accommodate.

Nicholas Sambanis, “The Demand for Sovereignty: From Decentralization to Secession” (Manuscript, Department of Political Science, Yale University, New Haven, April 2006).

of inequality is likely to be politicized in a uniquely geographic manner. Such politicization of inequality is evident in many federations, as stark intergovernmental battles over the regional incidence of taxation, intergovernmental transfers, and national spending in countries as different as Canada and Brazil can attest. Given the organizational potential of ethnicity, such conflicts are likely to be particularly stark when overlapped with geographically concentrated minority groups.

Take as an example Punjabi Sikhs’ quest for greater autonomy within India. Their demands in the 1950s and 1960s were driven by concerns about language, culture, and religion but in the 1970s and 1980s, economic discontent was added to the mix. The speeches of the militant leader Sant Jarnail Singh Bhindranwale referred to cultural concerns and emphasized Sikhs as a separate community, and the main Sikh political party, Akali Dal, emphasized economic and political matters, calling for the Indian state to become a federal state in a “real and meaningful” way. A major point was the notion that Punjab was deprived of river waters flowing through the province—a key concern in an agricultural state. The demands for autonomy reflected the sense that because Punjab and the Punjabi Sikhs in so many ways contributed to the Indian union—Punjab was the country’s breadbasket—they were not getting their fair share back.

Thus, consistent with the expectation that federalism may politicize both ethnicity and inequality, we hypothesize that ethnic heterogeneity contributes to conflict as interregional inequality mounts.

Hypothesis 1. The interaction of regionally concentrated ethnic groups and high interregional income inequality contributes to conflict.

FISCAL DECENTRALIZATION AND REGIONAL INCOME INEQUALITY

Proponents of federal solutions to governing complex societies often cite the fiscal decentralization associated with federalism as a means to

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57 These demands resulted in a nine-year-long violent conflict with Delhi that began in 1984, after the Indian army attacked the Sikhs’ most important shrine, the Golden Temple in Amritsar.

58 See, for example, Paramjit Singh Judge, Religion, Identity, and Nationhood (Jaipur, India: Rawat Publications, 2005).


60 As stated by G. S. Dhillon, a Sikh historian who was in charge of writing the Sikh version of the events leading up the Golden Temple massacre in 1984: “(T)he facts indicate that there has been a calculated plan to denude Punjab and its people of its natural wealth and thereby to seriously jeopardize the economic, industrial, and agricultural destiny of the State.” See G. S. Dhillon, India Commits Suicide, 3rd ed. (Chandigarh, India: Singh and Singh Publishers, 2004), 63.
foster unity through diversity in both ethnically homogenous and ethnically heterogeneous settings. If we take decentralization to mean the capacity of local and regional governments to spend money in the manner they see fit, the seminal works in fiscal federalism outline numerous potential advantages of decentralization. First and most important, decentralized, or subnational, spending can accommodate the demands of regional interests for some policy autonomy. Because regional leaders are assumed to have better information about their regions and be more politically responsive to regional citizens, the result can be public spending more reflective of diverse regional preferences.

In ethnically homogenous settings this logic underpins frequent calls for states’ rights and the desire by regional citizens to defend regional prerogatives from the clutches of national electoral majorities. Researchers of heterogeneous societies emphasize particular features of decentralization. Echoing a common argument in the broader decentralization literature, Michael Hechter suggests that regional minority groups are likely to want policy-making capacity regarding issues central to their identity such as language, education, and culture. He argues in favor of gearing local provision of public goods to the needs and desires of the particular segments of the population in question. He contends that this approach “is superior because it increases the likelihood that the right mix of goods will be produced—that mix which is most consistent with the distinctive values of the national group.” Irrespective of the precise policy sphere, decentralized autonomy means little in the absence of money to spend on decentralized priorities. For example, if decentralized preferences on issues of redistribution, religion, language, or schooling deviate substantially from those of the rest of the society, the capacity to act on those preferences is limited if regional governments are unable to finance the relevant programs.

Yet recommendations for fiscal decentralization miss one crucial point, namely, that it has a tendency to exacerbate interregional in-

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62 Hechter (fn. 14); Simeon (fn. 8); Liesbet Hooghe, “Belgium: Hollowing the Center,” in Amoretti and Bermeo, (fn. 8). Likewise, Rotimi T. Suberu, who argues that “(f)ederalism remains the lifeblood of Nigeria’s survival as a multiethnic country,” considers the country’s fiscal overcentralization as a source of conflict. See Suberu, “Nigeria: Dilemmas of Federalism,” also in Amoretti and Bermeo (p. 346).
65 Hechter (fn. 14), 153.
equalities. Given that poor regions have greater fiscal needs and a harder time raising revenue to meet those needs, central governments are typically responsible for addressing deep regional inequalities via interregional redistribution—a responsibility oftentimes complicated by fiscal decentralization. Several mechanisms seem to underpin this regularity.

First, as subnational governments consume a larger share of the public budget, the central government is left with less capacity to engage in redistribution from wealthy regions to poorer ones. Even if a central government in a highly decentralized setting is dedicated to easing interregional inequalities, the fiscal tools at its disposal are sharply diminished. Liesbet Hooghe notes, for example, that while the relatively rich Flemish region of Belgium welcomed greater spending power and a promise of greater fiscal autonomy with federal reforms in 1989, French-speaking politicians in the poorer Walloon region were concerned about losing out from such an arrangement. Second, fiscal decentralization is associated with intergovernmental competition for capital that under some conditions can exacerbate inequalities. As Hongbin Cai and Daniel Treisman note, when there is significant divergence in initial endowments across regions, decentralized intergovernmental competition for capital can exacerbate inequalities, as poor regions have little potential to attract capital and rich regions actually draw capital out of poor regions. The competition for tax base can also exacerbate regional inequalities by fostering an intergovernmental “race to the bottom” where social policy is decentralized. Hesitant to increase taxes on mobile factors and serve as a magnet for the poor, regional politicians are likely to restrict the kind of redistribution that might alleviate inequality. As a result, there is near universal accord on the negative impact of federalism on social spending. Third, the propensity for subnational governments to serve as important veto players

68 Hooghe (fn. 62), 71–73.
at the national level in fiscally decentralized settings can contribute to the difficulty of establishing extensive redistributive policies by the national government. As the number of veto players mounts, it becomes easier for a coalition of relatively wealthy regions to block legislation aimed at reallocating societal resources from wealthy to poor regions. The net result of these factors may be that wealthy regions are able to fund substantial provision of public goods, crowd in private sector investment, and grow relatively quickly while poor regions lag ever farther behind. Thus, where interregional income inequality is high, fiscal decentralization will likely exacerbate the inequality. As a result, where inequality is pervasive, fiscal decentralization will likely contribute to conflict.

Hypothesis 2. The interaction of fiscal decentralization and interregional income inequality contributes to conflict.

FISCAL TRANSFERS AND ETHNIC DIVERSITY

If fiscal decentralization has the potential to exacerbate inequalities, researchers often cite central government transfers as a means to ameliorate regional disparities within societies. Indeed, fiscal federalists have long recommended that the redistributive role of government be reserved for the national government in order to ensure normatively desirable levels of interregional fairness. The importance of the distinction between subnational spending financed with taxes raised by regional governments and those raised by national governments and subsequently transferred to regional governments is well established in the literature on fiscal federalism. While wealthy regions in some nations might have the aptitude to raise substantial own-source revenues, many regions in federations do not. Indeed, given economies of scale in the collection of taxes, most regional governments around the world tend to be left with narrow, income-elastic tax bases. The result is tremendous variation among countries in terms of how decentralized spending is financed. In Canada, for example, state and provincial governments raise the lion’s share of their own revenue, while in Argentina

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72 Swank (fn. 66).
73 Oates (fn. 63).
and Nigeria subnational governments are overwhelmingly dependent on fiscal transfers from the central government.

The complexities of various transfer systems aside, the fiscal federalism and conflict literatures both emphasize the importance of transfers for alleviating interregional conflict. In the fiscal federalism literature, the central government is the only actor that can internalize the costs associated with interregional inequalities and prevent the much-discussed potential for a race to the bottom among regions. In most cases, redistribution occurs through the central government’s capacity to reallocate national revenues in favor of poor regions. In the literature on conflict, these issues are typically framed with reference to the central government’s capacity to purchase the compliance of separatist (or potentially separatist) regions in order to avoid conflict. While crediting the conflict in the Niger Delta to a lack of fiscal decentralization, Rotimi T. Suberu acknowledges that central control of revenues and redistribution through transfers has promoted equality among Nigeria’s regions. Of Russia’s thirty-two ethnically defined regions, twenty-five declared sovereignty during the 1990–91 period, and many followed up by either adopting their own constitution, asserting the right to control natural resources, or even—as in the case of Chechnya and Tatarstan—declaring outright independence.

In a related vein, Treisman has attributed the Russian federation’s ability to hold together during the “parade of sovereignties” in the early 1990s to Moscow’s strategy of buying off separatist regions with tax breaks and fiscal transfers. This strategy of fiscal appeasement ensured regional support for the central government.

Yet while some suggest that central transfers can stem conflict, the systems through which intergovernmental transfers are employed are among the most conflictual aspects of many federations. Exactly because they are inherently redistributive, the rules that govern transfers pique the interest of regional politicians. Thus, in Canada, Argentina, Brazil, Nigeria, and elsewhere, the intergovernmental fiscal system has been at the center of federal politics for decades. Even in India and Australia, where the distribution of federal transfers is determined periodically by apolitical decision-making bodies, the politics of intergovernmental finance remain a matter of high debate. Thus, while large fiscal transfers can have peace-promoting aspects, they can also exaggerate distributive conflicts between regions.

Suberu (fn. 62).

Of Russia’s thirty-two ethnically defined regions, twenty-five declared sovereignty during the 1990–91 period, and many followed up by either adopting their own constitution, asserting the right to control natural resources, or even—as in the case of Chechnya and Tatarstan—declaring outright independence.

We expect the extent to which transfers promote peace to be conditioned by the ethnic composition of a society. On the one hand, where ethnic differences are pronounced, both minority and majority politicians are more likely to see transfers as a necessary means to maintaining peace. Ethnic minority politicians are likely to welcome the additional resources that transfers bring, and ethnic majority politicians are likely to see transfers as a tool to avoid costly ethnic mobilization and separatist threats. Thus, the Czech republic of Czechoslovakia significantly subsidized the Slovak republic for decades in peace, and the eventual peaceful breakup of the federation had little to do with fiscal transfers.\(^7^9\) In countries without major ethnic divisions, on the other hand, large intergovernmental transfers will serve to exacerbate distributive clashes among rich and poor regions and may even contribute to conflict. We, therefore, expect the peace-promoting aspects of intergovernmental transfers to build as ethnic diversity mounts and to fall as ethnic diversity declines.

Hypothesis 3. The interaction of large federal fiscal transfers and regionally concentrated ethnic groups detracts from conflict.

**National Party Systems and Ethnic Representation**

A considerable amount of research on federalism emphasizes the importance of national party systems in enabling a federation’s center to promote unity across levels of government.\(^8^0\) Many argue that by providing a mechanism for integrating and ultimately transcending parochial tendencies, national party systems are the glue that keeps federations from dissolving into a cacophony of conflicting regions. In Filippov, Ordeshook, and Shvetsova’s account of the splintering of the Soviet Union and Czechoslovakia, for instance, it is the decline of the Communist Party that precipitates federal failure.\(^8^1\) Absent the party’s mechanisms for disciplining centrifugal pressures, both systems broke apart. On the flip side, Dawn Brancati suggests that regional parties increase conflict by reinforcing separatist identities, producing legislation that favors some groups over others, and mobilizing groups to engage in separatism.\(^8^2\) By extension, inclusive national parties should contribute to peace.

It is not difficult, however, to imagine a situation in which a disciplined national party might contribute to civil conflict. Exclusion from

\(^7^9\) Filippov, Ordeshook, and Shvetsova (fn. 32).

\(^8^0\) Ibid.; Riker (fn. 4); Stepan (fn. 14).

\(^8^1\) Filippov, Ordeshook, and Shvetsova (fn. 32).

\(^8^2\) Brancati (fn. 28).
the national governing coalition can have important, negative implications for minorities. Legislation concerning important features of decentralized governance can fail to take into account the considerations of minorities or it can even take aim at their interests. Similarly, substantial research on contexts as diverse as India, the U.S., and Argentina suggests that national parties target transfers to subnational copartisans at the expense of regions governed by opposition parties. Together these factors suggest that while a large, unifying national party can improve the coherence of policy-making writ large, it can do so at the expense of minority groups if those groups are excluded from the governing coalition. Thus, Lake and Rothchild warn that decentralized governance is likely to work in postconflict societies only when no single group can control the national government. Likewise, Filippov, Ordeshook, and Shvetsova suggest that “if a society is described by two or a few clear-cut ethnic, religious, linguistic, or racial divisions, parties, unless dissuaded somehow from doing so, will most naturally tend to form around those divisions so that compromise and negotiation can only occur outside of them.”

As such, if a disciplined national party represents ethnic majorities but not ethnic minorities, it is likely to exacerbate the sense of isolation of minorities and contribute to conflict. Indeed, Steven Wilkinson finds that local violence was more likely in India when Muslim minorities were not electorally valuable for Hindu majorities and were excluded from governance. Bunce provides a similar account of civil war in Yugoslavia, which was precipitated by the refusal of Serbian leaders to rotate the collective presidency to the Croatian delegate. In contrast, when ethnic minorities are included in national governing coalitions, the central government has a direct electoral interest in accommodating minority regions and thereby fostering peace.

Hypothesis 4. The interaction of copartisanship (strong party ties across tiers of government) and ethnic copartisanship (ethnic minorities in those party ties) detracts from conflict.

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86 Lake and Rothchild (fn. 27).
87 Filippov, Ordeshook, and Shvetsova (fn. 32), 189.
89 Bunce (fn. 23).
DATA AND METHODS

To test the hypotheses outlined above, we conduct a time-series, cross-sectional analysis of conflict in twenty-two federal or semifederal states from 1978 to 2000. The focus on federal states is consistent with our question: how, not whether, federal institutions affect the likelihood of civil conflict. To be clear, we are not interested in explaining differences between federal and unitary systems; we are interested in explaining variation among federations. To be included a country must have an intermediate (between local and national) level of government with nontrivial, independent powers. The cases are Argentina, Australia, Austria, Belgium, Brazil, Canada, Czechoslovakia, Ethiopia, Germany, India, Malaysia, Mexico, Nigeria, Pakistan, Russia, the Soviet Union, South Africa, Spain, Switzerland, the United States, Venezuela, and Yugoslavia. These include the countries that scholars in the field have traditionally identified as federal based on Riker’s definition, as well as Belgium and South Africa—countries where constitutional reforms in the 1990s introduced federalism more recently. Generally speaking, in selecting our sample we chose to err on the side of inclusiveness so as to maximize comparisons and approximate the universe of federal cases while avoiding arbitrary exclusion. The time period covers the decades with the largest number of ethnic conflicts in the post–World War II period and includes the three decades with the largest number of intrastate war onsets since 1816. Appendix 1 provides details and sources for the data, much of which we have collected from country-specific sources.

In order to test our hypotheses, we introduce a series of distinctly federal variables (many new to the study of intrastate conflict) and multiplicative terms in order to capture the conditional relationships discussed above. To examine the first hypothesis—that the presence of


91 The data set builds considerably on that collected by Jonathan Rodden and Erik Wibbels by including region-specific measures of inequality, identifying ethnic-majority regions and the share of those regions governed by the party governing nationally, and adding several cases: Belgium, Ethiopia, Russia, South Africa, and the three communist countries that disintegrated in 1991 and 1992. See Rodden and Wibbels, “Beyond the Fiction of Federalism: Macroeconomic Management in Multi-tiered Systems,” World Politics 54 (July 2002).

regionally concentrated ethnic groups interacts with interregional income inequality—we use both a new measure for ethnic concentration, which indicates the share of a country’s population living in ethnic regions, and a new measure for interregional inequality. Consistent with much of the literature on ethnic conflict, we use a broad definition of ethnicity based on group identities such as race, language, and religion to determine ethnic regions. We consider ethnic majority/minority regions to be those in which at least half of the population belongs to an ethnic group that is a minority in the country as a whole. Appendix 2 provides an overview of ethnic regions across federal states. Note that this measure is an indicator of ethnic federalism.

To capture the intergroup component of the theoretical arguments about income discrepancies, we use regional gross domestic product (GDP) per capita data, relying on country-specific sources. We do not use national Gini coefficients, which are based on nationally aggregated data from household surveys of income and measure inequality among individuals. For each country-year we calculate the interregional decile dispersion ratio, which measures the income of the richest 10th percentile among the regions divided by the income of the bottom 10th percentile (that is, the income of the rich is presented as multiples of the income of the poor).

For the second hypothesis, regarding the interaction of fiscal decentralization and interregional income inequality, we measure fiscal decentralization as the share of total public sector spending that is conducted at the provincial level. We rely on the IMF’s Government Finance Statistics for some of this data but note that it does not report data for many of our cases and mischaracterizes the fiscal system in others (see Appendix 1 for details on sources). In these latter cases we resort to

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93 Aléman and Treisman (fn. 78). Several countries have regions that are commonly known as ethnic regions even though the ethnic groups in question actually make up a fairly small percentage of the region’s population. For example, the Russian Federation has thirty-two regions that are designated as ethnic regions, but in some of these only a small percentage of the population belongs to the ethnic group that the region is named after. In order to capture more of these regions, we construct a second measure for ethnic minority regions where we include regions in which at least one-fourth of the population belongs to an ethnic group that is a national minority. Using this latter measure does not affect our findings. See Appendix 1 for data sources.

94 For states where provincial GDP data are not available, we use either provincial income data (Switzerland) or provincial primary school enrollment data (Ethiopia and Nigeria).

95 For each country, as an alternative measure for the overlap of ethnic concentration and regional income we calculate the average ethnic region’s GDP per capita as a share of the entire country’s average GDP per capita. See discussion in fn. 122 below.

96 Most important, the IMF counts automatic transfers from national taxes to regional governments as revenue raised by the regions themselves for several of our cases, including Germany, Mexico, and Argentina, and as revenue to the central government. In other words, those revenues are incorrectly
national sources. Our measure of fiscal decentralization is interacted with the interregional inequality measure described above.

For the third hypothesis, involving federal transfers and regionally concentrated ethnic groups, we measure fiscal transfers as the share of total public sector spending that goes to federal grants and shared revenues. Sources include the IMF’s *Government Finance Statistics*, as well as sources specific to countries not covered (or improperly covered) by the IMF (see Appendix 1). This indicator is interacted with the ethnicity measure described above. We lag the measure of both fiscal decentralization and central transfers because we do not expect institutions to have an immediate effect on conflict.

For the fourth hypothesis, concerning the interaction of parties and the inclusion of ethnic minorities in those parties, we collect data on national and regional election results to construct a variable that measures the share of regional governments controlled by the nationally governing party or coalition. For the federal and provincial levels of government, the ruling party or coalition is the party of the chief executive. This indicator is designed to assess the common argument that large, regionally inclusive governing parties solve collective action problems and promote efficient policy-making better than narrow governing parties. In order to test whether ethnic copartisanship has a peace-preserving effect, we construct a measure that captures the share of the ethnic regions that is ruled by the same party or coalition that rules at the national level. This variable is then interacted with the indicator for overall copartisanship. As per this final hypothesis, we expect that large governing coalitions that exclude ethnic provinces will exacerbate conflict.

In addition to the hypotheses discussed in this article, we consider several alternative explanations that we expect to influence conflict in federal states. First, we include a measure for the economic strength of the state, measured as real per capita income (in 1985 U.S. dollars).
lagged). Bermeo finds that in comparison to unitary states, federations are more likely to be peace preserving if they are economically developed. James D. Fearon and David Laitin see GDP per capita as an indicator of state strength, arguing that stronger states are more likely to have the financial, administrative, military, and police capacities needed to capture and destroy potential violent challengers. We would expect this to be particularly important in federal states, where the central government has by definition surrendered some of its authority to subnational actors. For the same reason, we include a variable indicating the size of the country’s population. Second, we include a dummy variable for oil exporters to control for the argument that primary commodity exports represent an attractive target for nascent opposition movements. While oil resources are linked to conflict across all states, there is reason to believe that federal states in particular may experience conflict over such resources if the oil is concentrated in a few regions of the state and the central government seeks to redistribute the revenues generated from such resources. Moreover, Treisman has suggested that in Russia in the early 1990s, oil-rich regions were in a stronger bargaining position vis-à-vis the central government than were regions without such natural resources, and they were more likely to be assertive in their separatist demands. Third, given Gurr’s argument that democracies are less likely than authoritarian states to experience political violence, we control for democracy using the lagged Polity IV regime index for democracy minus autocracy score. Authors such as Brancati and Bermeo argue that federalism may be meaningful only in democratic states; hence it is of particular importance to control for democracy across a sample that includes both democratic and nondemocratic federal states. Finally, in order to account for previous conflict, we include the lagged dependent variable.

99 Bermeo (fn. 1).
100 Fearon and Laitin (fn. 48).
101 Collier and Hoeffler (fn. 48) see the same indicator as measuring how poor or rich a certain state is and find that richer states are less likely to experience conflict than poor ones. Again, we would think that wealth may be of particular import in federations, at least if the central government is to engage in significant redistribution among the regions of the state.
102 Ibid.
103 See Suberu (fn. 62) on Nigeria.
104 Treisman (fn. 25).
105 Gurr (fn. 14).
106 Data as in fn. 98.
107 Brancati (fn. 28) and Bermeo (fn. 1).
We note that our relatively small number of observations underscores the need for parsimony in our models and precludes the “garbage can” approach to independent variables common in the large-N conflict literature. Following the advice of Kevin A. Clarke,108 who warns against including a large number of control variables out of concern for omitted variable bias,109 we consider only the alternative explanations that we believe are likely to affect conflict in our sample of cases. Therefore, we do not include all of the variables identified as at times significant in the conflict literature, such as political instability, noncontiguous territory, mountainous terrain, and new state. The arguments linking mountainous terrain to conflict are essentially about state strength, which should be captured by the measure of GDP per capita. Likewise, political instability should be captured by the lagged dependent variable. In none of our cases does conflict happen in the noncontiguous parts of the country, nor do we have any new states in our sample. We note that in our sample, our model slightly outperforms Fearon and Laitin’s benchmark and more exhaustive model.110

THE DEPENDENT VARIABLE
This article assesses how federal structures interact with interregional inequality and ethnic concentration to affect the incidence of conflict within a state—be they conflicts concerning the central government’s power and policies, control over territory, or ethnic grievances. Thus, we employ three measures for our dependent variable. First, for a broad indicator of internal conflict, we use the Intensity of Conflict measure from the Armed Conflict 1946–2004 data set,111 which codes the level

109 Clarke’s point is that including too many control variables can make the bias on our coefficients of interest equally bad or worse than potentially omitted variable bias.
110 Fearon and Laitin (fn. 48). Relying on the area under the Receiver Operating Characteristic (ROC) curve as a measure for accuracy, we compared our models to that of Fearon and Laitin’s model on our sample and violent conflict variables. The area under the ROC curve ranges from 0.5 to 1. Numbers closer to 1 are preferred because 1 indicates that the diagnostic test for the model achieves both 100 percent sensitivity and 100 percent specificity. See Gary King and Langche Zeng, “Improving Forecasts of State Failure,” World Politics 53 (July 2001). Both in terms of armed conflict and ethnic conflict, we found that our model produced a slightly higher number (for the logit model of armed conflict, 0.9868 compared with 0.9744, and for the logit model of ethnic conflict, 0.9611 compared with 0.9395). Fearon and Laitin did not design their model to explain nonviolent conflict, such as our measure for major ethnic protest.
of conflict from 0–3 on the basis of annual deaths.\textsuperscript{112} Conflict in the data set is defined as a violent confrontation between two parties, one of them the government of a state, where the issue at stake is control over government or territory. Second, to assess the degree to which federal institutions may mitigate violent conflicts that specifically involve ethnic groups in conflict with the government, we employ the Minorities at Risk (\textit{MAR}) data-set indicator for ethnic rebellion.\textsuperscript{113} This is a variable that indicates an ethnopolitical group’s antiregime rebellion, ranging from political banditry to protracted civil war. Finally, given the finding in the literature that federalism mitigates armed ethnic conflict but actually may encourage ethnic protests,\textsuperscript{114} we use the \textit{MAR} measure for ethnic protest. The ethnic protest measure indicates an ethnopolitical group’s antiregime nonviolent protest activities ranging from verbal opposition to mass demonstrations with more than one hundred thousand demonstrators. Based on each country’s yearly maximum level of conflict, the countries’ average score on the dependent variables in the 1978–2000 period is shown in Figure 1. As we are primarily interested in whether there is conflict in any given federal state, we transform each of the measures into dichotomous variables.\textsuperscript{115}

\textbf{Estimation Procedures}

To investigate the effects of the independent variables on armed conflict, ethnic rebellion, and ethnic protest in a society we run logit regressions. The results are reported with robust standard errors defined

\textsuperscript{112} More precisely, 0 is no conflict; 1 is minor conflict, which means more than twenty-five battle-related deaths per year every year over the course of the conflict; 2 is intermediate conflict, which means more than twenty-five battle-related deaths per year and a total conflict history of more than 1,000 battle-related deaths; 3 is war, which means more than 1,000 battle-related deaths for every year over the course of the conflict. The unit of the analysis in the armed conflict data set is conflict-year. In cases where there were more than one conflict per country-year in our data set, we marked the highest level of conflict.

\textsuperscript{113} The data set is maintained by the Center for International Development and Conflict Management at the University of Maryland and is available via the center's Web site, www.cidcm.umd.edu/inscr/mar/ (accessed October 13, 2006). The Minorities at Risk (\textit{MAR}) data is group-level data, and we use the MARGene software to transform the group conflict scores into country-year indicators. In the event of there being more than one group in conflict in a country in any given year, we used the highest level of conflict. Prior to 1985, the \textit{MAR} indicators are available on a five-year basis, so we use MARGene’s interpolation function for the 1978–1985 period. (We also ran our analysis for ethnic rebellion and protest on the sample including only country-years after 1985, and it did not affect our main findings.)

\textsuperscript{114} See, for example, Hechter (fn. 14).

\textsuperscript{115} For each of them, we chose a cut-off point approximately one standard deviation above the average in our sample. For armed conflict, this means that the cut-off point is 1, i.e., minor armed conflict. For ethnic rebellion, we focus on whether in any given year a country has experienced a conflict categorized as local rebellion or a higher level of conflict, such as guerilla activities or protracted civil war. For ethnic protest, we focus on whether in any given year a country has experienced a protest categorized as medium or large demonstration.
as clustering on the cross-sections. To assess the role of the conditional hypothesis outlined above, in each model we include the variables for the alternative explanations mentioned as well as four interactive terms and their constitutive variables. Given the complications associated with interpreting the results of models with interaction terms (see below) we use our results to generate graphical representations of the predicted impact of our conditional hypotheses on conflict. Robustness checks are also discussed in the following section. All estimations are done in Stata 8.0.

**Findings**

Table 1 reports the results for each of the three dependent variables. The results lend support to several of our interaction hypotheses. After a brief discussion of the control variables, we focus on the article's major hypotheses and illustrate the dynamics of these interactions.

Turning first to the nonfederal variables, we find, as expected, that higher GDP per capita appears to reduce the likelihood of both ethnic rebellions and large ethnic protests, although it appears to have no significant impact on armed conflict in general. Also as expected, countries with large populations are more conflict prone than those with smaller populations. Contrary to the literature linking natural resources to armed conflict and ethnic separatism, we find that oil-exporting federations are less prone to ethnic rebellion than those without such natural riches, although oil seems to have no discernible effect on either armed conflict in general or ethnic protest. With regard to the former point, we believe this is a function of the fact that the countries with the highest level of ethnic conflict in our sample, Ethiopia and India, are comparatively resource poor, while resource rich countries in our sample, such as Venezuela, Nigeria, and Malaysia, evince relatively low or nonexistent levels of ethnic conflict. Democracy has no significant impact on a federation's likelihood of violent or nonviolent conflict. In all cases, previous conflict is a predictor of present conflict.

Regarding the distinctly federal variables, the statistical significance of the interaction terms lends support to each of our hypotheses. We see preliminary evidence that the interaction term Ethnic Regional Concentration*Central Government Grants has an expected and significant impact on the likelihood of armed conflict (Table 1, model 1), while the interaction terms Fiscal Decentralization*Interregional Inequality and Ethnic Regional Concentration*Interregional Inequality have an expected and significant influence on the likelihood of ethnic
<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Model 1 Ar. Conf.</th>
<th>Model 2 Eth. Rebellion</th>
<th>Model 3 Eth. Protest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per Capita Income (lag)</td>
<td>–0.211 **</td>
<td>–0.461***</td>
<td>–0.217**</td>
</tr>
<tr>
<td></td>
<td>(0.214)</td>
<td>(0.141)</td>
<td>(0.099)</td>
</tr>
<tr>
<td>Oil</td>
<td>–0.921</td>
<td>–4.705**</td>
<td>0.219</td>
</tr>
<tr>
<td></td>
<td>(0.900)</td>
<td>(2.044)</td>
<td>(0.456)</td>
</tr>
<tr>
<td>Population (log)</td>
<td>2.840***</td>
<td>2.024***</td>
<td>0.954***</td>
</tr>
<tr>
<td></td>
<td>(0.599)</td>
<td>(0.501)</td>
<td>(0.227)</td>
</tr>
<tr>
<td>Democracy (lag)</td>
<td>0.092</td>
<td>–0.059</td>
<td>–0.079</td>
</tr>
<tr>
<td></td>
<td>(0.081)</td>
<td>(0.050)</td>
<td>(0.063)</td>
</tr>
<tr>
<td>Ethnic Regional</td>
<td>2.430</td>
<td>–36.431***</td>
<td>–6.995</td>
</tr>
<tr>
<td>Concentration</td>
<td>(12.095)</td>
<td>(11.002)</td>
<td>(7.322)</td>
</tr>
<tr>
<td>Interregional Inequality</td>
<td>–2.309</td>
<td>–2.423***</td>
<td>–2.693**</td>
</tr>
<tr>
<td></td>
<td>(1.801)</td>
<td>(0.919)</td>
<td>(1.117)</td>
</tr>
<tr>
<td></td>
<td>(5.017)</td>
<td>(4.288)</td>
<td>(4.902)</td>
</tr>
<tr>
<td>Grants (lag)</td>
<td>(8.063)</td>
<td>(9.613)</td>
<td>(2.108)</td>
</tr>
<tr>
<td>Federal/Provincial</td>
<td>3.898*</td>
<td>3.940*</td>
<td>3.203</td>
</tr>
<tr>
<td>Copartisanship</td>
<td>(2.196)</td>
<td>(2.127)</td>
<td>(2.081)</td>
</tr>
<tr>
<td>Ethnic Federal/Provincial</td>
<td>–7.103***</td>
<td>–8.429***</td>
<td>2.056</td>
</tr>
<tr>
<td>Copartisanship</td>
<td>(2.678)</td>
<td>(1.939)</td>
<td>(1.715)</td>
</tr>
<tr>
<td>Fiscal Decentralization</td>
<td>5.062</td>
<td>3.680**</td>
<td>2.767</td>
</tr>
<tr>
<td>*Interregional Inequality</td>
<td>(3.554)</td>
<td>(1.746)</td>
<td>(1.978)</td>
</tr>
<tr>
<td>Ethnic Regional Concentration</td>
<td>–0.010</td>
<td>7.906***</td>
<td>3.583*</td>
</tr>
<tr>
<td>*Interregional Inequality</td>
<td>(3.346)</td>
<td>(2.026)</td>
<td>(2.069)</td>
</tr>
<tr>
<td>Ethnic Regional Concentration</td>
<td>–46.360***</td>
<td>35.533*</td>
<td>–10.597</td>
</tr>
<tr>
<td>Copartisanship</td>
<td>2.473</td>
<td>1.141</td>
<td>–5.333**</td>
</tr>
<tr>
<td>*Ethnic Copartisanship</td>
<td>(2.345)</td>
<td>(2.101)</td>
<td>(2.733)</td>
</tr>
<tr>
<td>Lagged DV</td>
<td>1.174**</td>
<td>2.787***</td>
<td>2.231***</td>
</tr>
<tr>
<td></td>
<td>(0.465)</td>
<td>(0.670)</td>
<td>(0.319)</td>
</tr>
<tr>
<td></td>
<td>(6.887)</td>
<td>(6.226)</td>
<td>(3.862)</td>
</tr>
<tr>
<td>N =</td>
<td>356</td>
<td>354</td>
<td>354</td>
</tr>
<tr>
<td>Pseudo R squared</td>
<td>0.7355</td>
<td>0.6664</td>
<td>0.5403</td>
</tr>
</tbody>
</table>

*significant at 0.10; **significant at 0.05; ***significant at 0.01

The estimations are the result of logit regressions. Standard errors, defined as clustering on the cross-section, are in parentheses. The estimations are done in STATA 8.
rebellion (Table 1, model 2). The interaction terms Ethnic Regional Concentration*Interregional Inequality and Copartisanship*Ethnic Copartisanship affect ethnic protest in the expected directions (Table 1, model 3). Nevertheless, as a growing body of methods literature makes clear, interpreting regression output for interactive models is complicated by a number of factors associated with the conditional relationships among the variables. First and most important, the coefficients in interaction models no longer indicate the average effect of a constitutive variable as they do in an additive model. Indeed, the coefficients on the constitutive terms themselves may not have substantive meaning and rarely speak directly to the interactive relationships of interest. The coefficient for fiscal decentralization, for instance, indicates the impact of a one-unit increase of fiscal decentralization when regional inequality is 0. But there are no cases in our data set that score a 0 on regional inequality, which varies from 1.12 to 5.46. Second, multicollinearity between constitutive and interaction variables (a by-product of multiplicative terms) can inflate standard errors, making standard significance measures useless. Moreover, aside from the fact that we are not strictly interested in the model parameters, standard errors of interaction coefficients may tell us little about the standard errors of the estimated effects of the interaction, which depend on the values of the constitutive terms. In short, the nature of interactive models requires a different approach to interpreting statistical output than that pursued in standard additive models.

Therefore, as recommended by Robert Franzese, Cindy Kam, and Amaney Jamal, we present the impact of our interactive hypotheses on conflict graphically, as conditional expectations/predicted values with accompanying 90 percent confidence intervals. We do so by holding one constitutive variable constant at two theoretically interesting values (low and high, defined as one standard deviation below and one above the sample mean), interacting it across levels of the other constitutive variable, and generating predicted values of conflict on the basis of the results reported in Table 1. More intuitively, these graphs show how

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117 Franzese, Kam, and Jamal (fn. 116).

118 An alternative would be to plot conditional coefficients, for example, Clark, Gilligan, and Golder (fn. 116), but we find the conditional predictions more substantively interesting.

119 We use King, Tomz, and Wittenberg’s Clarify software to generate these predicted values. See Gary King, Michael Tomz, and Jason Wittenberg, “Making the Most of Statistical Analyses: Improving Interpretation and Presentation,” American Journal of Political Science 44 (April 2000).
the interaction of the variables impact conflict. The reader will note that we have not graphed all of the hypothesized relationships. For the sake of parsimony, we have presented only those relationships that are significant. In assessing the significance of the interactive relationships, we use two rules of thumb: first, whether there is a significant difference in the predicted value of conflict between high and low values of a constitutive variable; and second, whether there is a significant change in the predicted value of conflict across the value of a constitutive variable. If either condition holds, we graph the predicted value of conflict. Even when we cannot have great confidence in our findings, it is worth noting that the results are generally consistent with our hypotheses. Appendix 3 includes the graphs that are consistent with our hypothesized relationships but do not fulfill these statistical significance criteria.

Figure 2 presents our significant results with regard to armed, as opposed to specifically ethnic, conflict. Though we find only suggestive evidence in support of hypotheses 2 and 3 (Appendix 3, a and b), we find solid evidence for the fourth hypothesis concerning the interaction between copartisanship and ethnic copartisanship as it bears on general armed conflict in a society. The graph in Figure 2 underscores the importance of intergovernmental partisan relations in shaping violent conflict. It shows that intergovernmental copartisanship, as indicated by the share of regional governments held by the nationally governing party or coalition, has a divergent impact on conflict conditional on whether ethnic regions are copartisans of the center. As expected, the likelihood of conflict mounts with the intergovernmental strength of the nationally governing party when ethnic regions are governed by an opposition party. When ethnic regions are copartisans of the center, however, increased intergovernmental partisan coherence does not significantly increase the likelihood of conflict. This is consistent with accounts by Lijphart and others of the unity-promoting effect of the Congress Party in India.120 Similar arguments have been made about the less democratic United Malays National Organisation (UMNO) and Partido Revolucionario Institucional (PRI) parties in Malaysia and Mexico, respectively, but here we specify that minority/majority regions need to be part of the governing coalition and test the argument across a large number of cases. Such an interpretation receives additional support in the results presented in Figure 3, where we graph the predicted probability of an ethnic rebellion existing in a federation. Consistent with the information in Figure 2, it shows that the probability of eth-

120 Lijphart (fn. 15).
nic rebellion rises once ethnic regions are excluded from the nationally governing party or coalition.

The results are even more supportive when we turn squarely to ethnic conflict as opposed to armed conflict more generally. Figure 4 illustrates how fiscal decentralization affects ethnic conflict conditional on interregional inequality (hypothesis 2). As we expected, when interregional inequality is high—as in Brazil, Ethiopia, Mexico, Nigeria, Russia, South Africa, the USSR, and Yugoslavia—increased fiscal decentralization increases the likelihood of ethnic rebellion quite drastically. While decentralization in such cases serves to underscore inequalities, fiscal centralization, in contrast, probably facilitates central redistribution that can serve to mediate the impact of regional inequities. Contrary to what we expected, however, increased fiscal decentralization appears to have no clear mitigating effect in countries characterized by low interregional inequality—as in, for example, Australia, Czechoslovakia, Pakistan, Spain, Switzerland, and the U.S. While the figure suggests that increased fiscal decentralization has less of a conflict-promoting effect under conditions of low interregional inequality than under high interregional inequality, based on the overlapping confidence intervals, we cannot be certain that is the case.

**FIGURE 2**
THE IMPACT OF COPARTISANSHIP ON ARMED CONFLICT, CONDITIONAL ON ETHNIC COPARTISANSHIP

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a Dashed lines are 90 percent confidence levels.
Figure 5 underscores the interaction between a federation’s ethnic makeup and interregional inequality (hypothesis 1). The graph suggests that in societies characterized by regional ethnic concentration, as in India and the USSR, the likelihood of ethnic conflict rises as interregional inequality increases. Two explanations present themselves: rich minority/majority regions may take umbrage at redistribution away from them, and/or poor minority/majority regions may feel a strong sense of grievance. As a number of recent papers have argued, particularly wealthy regions may find subsidizing the rest of the country burdensome and hope to improve their economic lot by escaping via secession.121 A second possibility is that the combination of ethnic concentration and poverty spur conflict.122

When turning from ethnic violent conflict to ethnic protest in Figures 6, 7, and 8, we find further evidence for our conditional hypotheses. As with ethnic rebellion, Figure 6 illustrates that as a state becomes more

121 For example, Alesina, Spolare, and Wacziarg (fn. 48); and Sambanis and Milanovic (fn. 2).
122 For example, Horowitz (fn. 34), Gurr (fn. 14), and Stewart (fn. 51). In order to try to distinguish among these two hypotheses, we exchanged the interaction term Ethnic Concentration*Interregional Inequality with an indicator measuring the relative wealth of a country’s ethnic regions (calculated as the average of the ethnic regions’ wealth over the country’s average level of wealth) and found the indicator to be negative but not significant, suggesting that more research is needed to determine whether it is relatively wealthy or poor regions that may spur ethnic rebellions.
FIGURE 4
THE IMPACT OF FISCAL DECENTRALIZATION ON ETHNIC REBELLION, CONDITIONAL ON INTERREGIONAL INEQUALITY

Dashed lines are 90 percent confidence levels.

FIGURE 5
THE IMPACT OF INTERREGIONAL INEQUALITY ON ETHNIC REBELLION, CONDITIONAL ON ETHNIC CONCENTRATION

Dashed lines are 90 percent confidence levels.
fiscally decentralized, the likelihood of protest increases if the society is characterized by high levels of interregional inequality. Because of the wide confidence intervals around the line representing low levels of interregional inequality, we are not able to say with certainty that there is an opposite trend in more egalitarian societies. Whereas we found no evidence for an appeasement effect of fiscal transfers on ethnic rebellion and armed conflict, Figure 7 tells us that in states where ethnic groups are regionally concentrated, higher levels of central transfers are associated with less likelihood of major ethnic protest. Again, the confidence intervals around the line representing low ethnic concentration are too wide to say with certainty that transfers have a different effect in relatively homogenous societies.

Finally, as in the case of armed conflict in general and ethnic conflict more specifically, Figure 8 lends support to the notion that party ties across tiers of government are important. The graphs suggest that as general copartisanship increases, there is a higher chance of major ethnic protest if ethnic regions are excluded from the nationally governing party. Likewise, it is also seems that as general copartisanship rises, there is a decreasing chance of major ethnic protest if ethnic regions are copartisans of the center.
**Figure 7**
The Impact of Central Transfers on Major Ethnic Protest, Conditional on Ethnic Concentration

*Dashed lines are 90 percent confidence levels.*

**Figure 8**
The Impact of Copartisanship on Major Ethnic Protest, Conditional on Ethnic Copartisanship

*Dashed lines are 90 percent confidence levels.*
Though we have gone to great pains to collect as much data as possible on these federations, we would like to emphasize that the relatively small number of cases under analysis (about 355) suggest the need for caution in interpreting these results. To increase confidence in the findings, we have estimated a number of alternative models. First, we removed the interaction terms from our models and compared their performance to our full models. Relying on the area under the Receiver Operating Characteristic (ROC) curve as a measure for accuracy, we found that the models that include the interaction terms fare slightly better. As indicated in footnote 110, our models also slightly outperform more standard models in the large-N conflict literature.

Second, we exchanged the measure of ethnic concentration based on majority/minority regions with one that includes the population of regions in which more than a quarter of the population belongs to an ethnic minority group (listed in Appendix 2, column 2), which made for no major changes in our results. We also estimated our models without Nigeria and without Ethiopia, as they are the two countries for which we do not have income data based on regional GDP (see footnote 94) and, in the Nigerian case, regional ethnic data are questionable. These exclusions made no difference to our main findings regarding conditional effects. Furthermore, estimating all of the models without the clustering of errors on countries produced similar results across the dependent variables.

**Conclusion and Further Research**

As policy discussions concerning both postwar Afghanistan and Iraq have shown, federalism, or decentralized governance, represents one option for managing conflict in divided societies. The literature on intrastate conflict has concluded, however, that federalism is both a cure and a curse for divided states: while the promise of federalism lies in its combination of shared rule and self-rule, the danger lies in the possibility that it encourages mobilization along ethnic lines. Moreover, while the federalism literature does a good job of pointing to the possible

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123 King and Zeng (fn. 110).
124 The area under the ROC curve ranges from 0.5 to 1, and numbers closer to 1 are preferred because 1 indicates that the diagnostic test for the model achieves both 100 percent sensitivity and 100 percent specificity. In our case, for the logit analysis of armed conflict, the area under the ROC curve of the full model was 0.9868, while the corresponding number for the analysis excluding the interaction terms was 0.9845. For the logit analysis of ethnic conflict, the area under the ROC curve for the full model is 0.9611, while the number for the limited model is 0.9477 and the corresponding numbers for ethnic protest are 0.9386 and 0.9282.
effects of a number of institutional variables, it has not systematically taken into account how these institutions may produce different effects in different societies. The premise of this inquiry is that the peace-preserving merits of federalism depend not only on the design of the institutions but also on how these institutions respond to the characteristics of the societies they govern. Specifically, we propose that the conditions under which federalism mitigates political violence are a function of the interaction between federal institutions, regional inequality, and ethnic diversity in a society.

The empirical analysis lends support to our major proposition. In a number of figures, we illustrate how institutional effects vary—often dramatically—on the underlying social makeup of societies. We find that the degree to which federal states politicize both ethnicity and inequality affect conflict patterns in these states—the interaction of high interregional inequality and ethnic concentration increases the likelihood of ethnic conflict. We also find that fiscal decentralization’s contribution to ethnic peace is conditional on the distribution of wealth in federal states. If there are wide disparities in income across regions, a large degree of fiscal decentralization increases the likelihood of ethnic rebellion and major ethnic protest, suggesting that particularly under such conditions of inequality, fiscal decentralization should be limited. Finally, copartisanship between the national and provisional levels of government helps “hold the state together” only when the national government’s copartisans include ethnic minority/majority regions. In contrast, a strong national party that excludes ethnic regions serves to exacerbate ethnic conflict.

These findings have important implications for the specific literatures on intrastate conflict and federalism, as well as for the general literature on institutions. With regard to civil conflict, we take the advice of Stephen M. Saideman, David J. Lanoue, Michael Campenni, and Samuel Stanton, who argue that most large-N, cross-national studies of conflict lack many of the domestic-level variables that many theorists expect to influence the propensity for violence within and between societies. In finding evidence that federal institutions matter, our research provides impetus to further theoretical and empirical specification of the role of decentralized and intergovernmental politics in shaping conflict. Indeed, given our data constraints and the nature of this large-N project, we believe our findings suggest the need for substantial case-study work to more carefully examine the mechanisms underpin-
ning those findings. With regard to the literature on federalism, we expand the scope of recent research that has focused overwhelmingly on the role of decentralized governance in the formulation of economic policy. We find further evidence that federalism matters, but in this case its implications reach beyond fiscal, monetary, and redistributive policies to include the very prospects for peace in societies. In contrast to some recent work in comparative federalism, however, we emphasize that the impact of federal institutions is not independent of the underlying features of the societies in which those institutions operate. As Filippov, Ordeshook, and Shvetsova note in an excellent recent work on the design of federal institutions, scholars can identify the key institutional parameters on which federations vary, but the impact of those institutions is likely to vary with several other noninstitutional features of polities.126

At the broadest level, our research has implications for the ongoing emphasis on institutions in international relations and comparative politics. While one branch of research has emphasized the independent importance of institutions in shaping outcomes, another has emphasized the endogeneity of institutions and their dynamic interaction with other features of societies and the international system in affecting politics. With its emphasis on the interactions between institutions and society, our research squarely falls in the latter category. One crucial implication of the evidence and emphasis presented here is that prescribing institutional fixes for the economic and political divisions that a number of contemporary federations face is fraught with difficulties. Indeed, one important policy implication of this research is that successful institutional design requires in-depth knowledge of the societies the institutions are meant to govern. If institutions and societies interact in complex ways, institutional engineering becomes a very tricky endeavor indeed. That a certain hegemonic power finds itself engaged in several attempts to engineer institutional solutions in sharply divided societies suggests that its current policymakers have failed to appreciate the intricate connections between states and societies.

126 Filippov, Ordeshook, and Shvetsova (fn. 32), 5.
APPENDIX 1: DATA SOURCES

Data on fiscal decentralization and grants are taken from the IMF, Government Finance Statistics Yearbook, various years, with the following exceptions:

Argentina  Unpublished Ministry of Finance Data.


Unpublished data provided by the Finance Ministry of the state of Baden-Württemberg.

Mexico  Combination of IMF’s Government Finance Statistics and “Finanzas Públicas Estatales y Municipales de México” (Aguascalientes: Instituto Nacional de Estadística, Geografía e Informática, various years).


Pakistan  Government of Pakistan, Finance Division, Economic Survey (Karachi: Manager of Publications, various years).
Russia
Data on Russian Public Finance Data, 1993–99, provided by Judith Thornton, Department of Economics at the University of Washington, Seattle.

South Africa

USSR

Gosudarstvennyi biudzhet SSSR (Moscow: Finansy i statistika, various years).


Venezuela
República de Venezuela, Oficina Central de Estadística e Informática, Anuario Estadístico de Venezuela (Caracas: La Dirección, various years).

Data on copartisanship are taken from the Europa World Yearbook, various years, with the following exceptions:

Argentina
Ministry of the Interior election data.

Australia

Belgium

Canada

Unpublished data provided by John Wilson at the University of Waterloo.

Czechoslovakia

Juan J. Linz and Alfred Stepan, Problems of Democratic Transition and Consolidation: Southern
DIVERSITY, DISPARITY, CIVIL CONFLICT


**Ethiopia**


**Germany**

American Institute for Contemporary German Studies, aicgs.org.

**India**

Election Commission of India. At eci.gov.in/infoeci/key_stat/keystat_fs.htm.

**Malaysia**


**Nigeria**


**Pakistan**


**Russia**


*Vybor i parti i v regionakh Rossi: sbornik uchebnykh materialov po kursu “Politicheskaia regionalistika”* (Moscow: IGPI Letnii sad, 2000).


Center for Russian Studies, Norwegian Institute of International Affairs: Database on Russian politics. At www.nupi.no/RUSSLAND/DATABASE/start.htm.

United States  
America Votes (Washington, D.C.: Congressional Quarterly, various years).

Yugoslavia  

Data on ethnicity:

Belgium  

Canada  
2001 census data from Canadian Statistics. At www.statcan.ca.

Colombia  

Czechoslovakia  

Ethiopia  

India  

Malaysia  
Buku tabunan perangkaan, Malaysia (Kuala Lumpur: Jabatan Perangkaan, various years).
Laporan banci penduduk (Kuala Lumpur: Jabatan Perangkaan, various years).
Laporan penduduk kawasan pihak berkuasa tempatan (Kuala Lumpur: Jabatan Perangkaan, 1995).
Laporan penduduk negeri (Kuala Lumpur: Jabatan Perangkaan, various years).

Mexico

Nigeria

Pakistan

Russia/USSR
1989 census data from Goskomstat. At the Web site of Robert J. Kaiser at the University of Wisconsin at Madison, polyglot.lss.wisc.edu/creeca/kaiser/ethnic.html.

South Africa

Spain
Eduardo Alemán and Daniel Treisman, “Fiscal Politics in ‘Ethnically-Mined,’ Developing, Federal


The European Commission’s “Languages of Europe,” europa.eu.int/comm/education/policies/lang/languages/index_en.html.

Switzerland Linguistic data from Bundesamt für Statistik. At www.bfs.admin.ch.


Venezuela *Censo Idigena de Venezuela* (Caracas: Oficina Central de Estadistica e Informatica, 1985).


Data on regional income are taken from Jonathan Rodden and Erik Wibbels, “Beyond the Fiction of Federalism: Macroeconomic Management in Multitiered Systems,” *World Politics* 54 (July 2002), with the following exceptions:

Austria GDP data from the OECD’s Territorial Database.


Colombia GDP data from Departamento Administrativo Nacional de Estadística (DANE) Estadistica. At www.dane.gov.co/.

Czechoslovakia *Statistická rocenka Ceskoslovenské socialistické republiky / Státní úrad statistický, Ceskoslovenské socialistické republiky* (Prague: Státní nakl. technické literatury, various years).
Ethiopia


Malaysia

*Malaysia Plan* (Putraja: Economic Planning Unit, Prime Minister’s Office, Government of Malaysia, various years).

Nigeria


Pakistan


Russia

Data from Lev Freinkman at the World Bank.

Soviet Union


Switzerland


Venezuela


Yugoslavia

*Statisticki godisnjak Jugoslavije: Socijalisticka Federativna Republika Jugoslavija, Savezni zavod za statistiku* (Belgrade: Zavod, various years).

Data from Branko Milanovic at the World Bank.

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<th>Federation</th>
<th>Ethnic Majority/Minority Regions&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Ethnic Minority Regions&lt;sup&gt;b&lt;/sup&gt;</th>
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<td>Minority Region(s)</td>
<td>Note</td>
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<td>(Bosniak)</td>
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<td>Kosovo (Albanian)</td>
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*Ethnic minority/majority regions (M/M regions) are defined as those in which at least half of the population belongs to an ethnic group that is different from the largest ethnic group in the country as a whole (based on census category ethnic affiliation, religious affiliation, and/or mother tongue/regional language spoken at home). Capital territories are not counted as M/M regions.

*Ethnic minority regions are defined as regions where at least one quarter of the population belongs to an ethnic group different from the largest ethnic group in the country as a whole (based on census category ethnic affiliation, religious affiliation, and/or mother tongue/regional language). In this category, regions where more than 25 percent of the population belongs to one or more indigenous groups are also counted. Capital territories are not counted as minority regions.

*In Ethiopia, there is no one national majority group and the two largest ethnic groups are almost of the same size (in 1994, the Oromo made up 32 percent of the population and the Amara 31 percent of the population). Thus, we consider both the Oromo and Amara to be the largest ethnic groups.

*This is based on Nigeria expert Rotimi Suberu's classification of which ethnic and religious groups dominate in the different states. The Hausa-Fulani is the largest ethnic group (29 percent), while Islam is the dominant religion (50 percent) in the country as a whole. Census data in Nigeria are highly disputed.

*This is based on language groups (language most often spoken at home). There is no one majority language group in South Africa. The largest language group consists of the Zulu speakers who, per the 1996 census, made up 23 percent of the population (the second largest group was Xhosa speakers at 17.9 percent).

*Based on language (spoken at home). California and Texas are not minority regions until 2000, but already in 1990, more than 25 percent of the population in these states declare that it is of Hispanic origin. In the 1980 census, none of these regions are minority regions based on language or ethnic origin. Maryland does not have an African American population exceeding 25 percent until the 1990 census.
APPENDIX 3: ADDITIONAL FIGURES

(a) THE IMPACT OF FISCAL DECENTRALIZATION ON ARMED CONFLICT, CONDITIONAL ON INTERREGIONAL INEQUALITY

(b) THE IMPACT OF CENTRAL TRANSFERS ON ARMED CONFLICT, CONDITIONAL ON ETHNIC CONCENTRATION

* Dashed lines are 90 percent confidence levels.