TRIBE OR NATION?
Nation Building and Public Goods in Kenya versus Tanzania

By EDWARD MIGUEL*

I. INTRODUCTION

THE design of public policies that promote interethnic cooperation remains poorly understood nearly twenty years after the appearance of Horowitz’s seminal work.¹ Recent research suggests that ethnically diverse societies are prone to corruption, political instability, poor institutional performance, and slow economic growth and that in the United States higher levels of diversity are related to lower provision of local public goods across municipalities. Addressing ethnic divisions is likely to be particularly important for Africa, the most ethnically diverse and poorest continent.

This article examines how central government nation-building policies affect interethnic cooperation, by comparing the relationship between local ethnic diversity and public goods across two nearby rural districts, one in western Kenya and one in western Tanzania, using colonial-era national boundary placement as a “natural experiment.” Despite their largely shared geography, history, and colonial institutional legacy, governments in Kenya and Tanzania have followed radically different ethnic policies along a range of dimensions—most notably in national language policy, the educational curriculum, and local institutional reform—with Tanzania consistently pursuing the more serious nation-building policies during the postcolonial period.

The empirical evidence in this article suggests that the Tanzanian nation-building approach has allowed ethnically diverse communities

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tion, slow financial development, poor schooling outcomes, and less infrastructure investment.

Empirical researchers have since documented many specific instances where ethnic diversity produces subpar collective action outcomes, and for the remainder of this section I survey this growing body of evidence. To illustrate, Peruvian microcredit groups have higher loan default rates when members are from different cultural backgrounds. U.S. municipalities with higher levels of racial diversity raise considerably less funding for local public goods. Rural Kenyan communities with greater ethnolinguistic diversity—across “tribes,” as they are called in East Africa—have considerably less primary school funding, worse school facilities, and poor maintenance of water wells.

There is less consensus regarding the underlying mechanisms generating these patterns, and two sets of theories have emerged, although the theories are not mutually exclusive and both in most cases probably capture important aspects of reality. The first theories are what I call taste explanations for negative ethnic diversity effects. There are several variants of this theory, mainly developed in research on the United States. For example, Alesina, Baqir, and Easterly have argued that individuals from different ethnic groups prefer distinct types of public goods—roads versus libraries, for instance—and this leads to less agreement on public goods choices and thus to lower funding in diverse areas; Alesina and La Ferrara have asserted that, for the most part, individuals from different groups dislike “mixing” across ethnic lines, and this drives the poor collective outcomes in diverse areas; and Vigdor finds that individuals prefer to fund public goods that benefit their own ethnic group. Unfortunately, none of these theories explain where ethnic taste differences come from or how they are affected by policy. They therefore cannot address the central concern of this study—ameliorating ethnic divisions.

The second set of theories emphasizes the important role of community social sanctions in sustaining collective action and how diverse

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4 Dean Karlan, “Social Capital and Group Banking” (Manuscript, Department of Economics, Princeton University, 2002).
7 Alesina, Baqir, and Easterly (fn. 5).
settings can render sanctions ineffective. Observers of less developed
countries have long noted the importance of community pressure and
dense social ties in sustaining good collective outcomes, and recent em-
pirical studies tend to emphasize this mechanism. The basic idea is that
it becomes difficult to sustain cooperation across ethnic groups in areas
where members of different groups tend not to have frequent social in-
teractions or personal affinity. In this view, public policies that promote
interaction, information sharing, and coordination across groups are
plausible vehicles for reducing the inefficiencies associated with diversity.

Yet there is limited empirical evidence regarding which public poli-
cies are most successful in addressing ethnic divisions. One possible in-
istitutional reform would be to promote power sharing across groups
within governments or other organizations. Under power sharing, eth-
nic minorities are assured some minimum representation in govern-
ment and some influence over policy, including veto power over certain
policies. Although intuitively attractive, power sharing has failed to
resolve ethnic conflict in many cases, especially in Africa. In fact, at
the same time that power sharing structures competition among ethnic
groups in the political arena, it institutionalizes divisions across groups
rather than bridging them and may hinder the development of new so-
cial identities—or multiethnic political coalitions—that cut across pre-
existing divisions.

A second and perhaps more promising approach advocates promot-
ing dialogue and interaction among the leaders of distinct ethnic com-
munities, who are then better able to coordinate responses to violations
of intergroup cooperation norms. One variant of this approach, associ-
ated with the work of Fearon and Laitin, would have group leaders
punish violators from within their own ethnic group, so-called within-
group policing. A closely related form of elite coordination is the estab-
lishment of formal associational bonds across ethnic groups. It has recently
been argued that the density of cross-group associational ties is the
critical determinant of interreligious relations in India during episodes
of communal violence.

However, these theories too have limitations. Approaches predicated
on the existence of cooperation among ethnic group leaders beg the

10 Miguel and Gugerty (fn. 6).
13 James Fearon and David Laitin, "Explaining Interethnic Cooperation," American Political Science
Review 90, no. 4 (1996).
14 Ashutosh Varshney, Civic Life and Ethnic Conflict: Hindus and Muslims in India (New Haven: Yale
University Press, 2002).
question of how this cooperation comes about in the first place. In fact, elite cooperation is as much a manifestation of better ethnic relations as a cause, and thus it is difficult to draw strong causal claims about how associational links actually affect relations.

NATION BUILDING AND POLITICAL SOCIALIZATION

The literatures on nation building and political socialization have concerned themselves with these and related questions, namely, with how individual political ideals, opinions, identities, and preferences are created. Research on political socialization has focused primarily on how the mass media and the educational system can be employed by political leaders to inculcate citizens with “desirable” political ideals, including often a strong attachment to the nation over ethnic and regional identities. Thus, to the extent that it is successful, political socialization offers a way out of the dilemma of determining the origin of “tastes” for ethnic cooperation. Nation-building policies may therefore be viewed more generally as investments in “social capital.”  

Nation-building reforms in the newly independent East African nations figured prominently in the political socialization literature of the 1960s and 1970s. However, this body of research did not reach strong empirical conclusions about how useful political socialization actually was in manufacturing a coherent national identity or political culture, in part because of the limited time that had elapsed between the implementation of nation-building programs in the 1960s and the research conducted only a decade later.

III. A NATION-BUILDING CASE STUDY: KENYA versus TANZANIA

GEOGRAPHIC AND HISTORICAL COMMONALITIES

Kenya and Tanzania are a natural paired comparison, with similar geography and histories, but they have followed radically different nation-building policies since independence. Barkan writes:

Comparison between Kenya and Tanzania [is] . . . appealing because of their resemblances with respect to a number of variables that impinge upon the developmental process and that could be held constant or nearly constant in an

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examination of the countries. Both are populated mainly by small peasant households of similar cultures. . . . Both experienced British colonial rule and inherited a common set of political, administrative, and economic institutions. . . . As adjacent countries, they share a common climate and have similar natural resource endowments.18

The two districts in this study—Busia, Kenya, and Meatu, Tanzania (see Figure 1)—are the sites of field offices for the same Dutch non-governmental organization (ICS Africa) and were originally chosen for development assistance according to the same criteria, as poor rural areas in particular need of assistance. Although the Tanzanian district is

somewhat more arid and less densely populated than the Kenyan district, the two are similar along many other important characteristics. Busia, Kenya, and Meatu, Tanzania, are located near each other (roughly five hundred kilometers apart) on opposite sides of Lake Victoria, both are overwhelmingly rural and have the same staple crops (maize, sorghum, and cassava), although most of Meatu, Tanzania, has only one harvest per year while Busia, Kenya, has two. The areas were also part of a shared precolonial historical universe, with extensive migration across what is today the Kenya-Tanzania border. The current border was drawn in the period 1886–90 by British and German colonial authorities largely ignorant of the ethnic and political entities that existed in the region, and it consists of a straight line drawn from the western edge of Mount Kilimanjaro to the point where the shore of Lake Victoria intersects one degree south latitude (the latitude at which Britain and Germany had decided to split the lake roughly in half). The arbitrary nature of African boundary creation during the colonial period is at the heart of the empirical strategy of this article.

The total 1989 population of Busia was 401,658 and the current population of Meatu is approximately 201,981. The two districts have similar ethnic compositions, with majority Niger-Kordofanian (Bantu) populations and substantial Nilo-Saharan minorities: the dominant Luhya ethnic group (which is Bantu speaking) constitutes nearly 70 percent of the population in the Kenyan district, while the majority Sukuma group (also Bantu) constitutes roughly 85 percent of the population of the Tanzanian district. Armed conflict associated with cattle raids was common in both areas during the precolonial period, and interethnic relations were qualitatively similar. Another similarity lies in the realm of language use: unlike many other regions of Tanzania, Meatu district had minimal trade ties with Swahili speakers from the

19 The ideal research design should not choose districts literally straddling a common border, since border areas might be influenced by the neighboring country, and the existence of these "spillovers" would complicate the interpretation of differences across the districts.
20 Average annual rainfall in Meatu and Busia is approximately 700 millimeters and 1500 millimeters, respectively.
East African coast during the nineteenth century, so few residents of the area spoke Swahili upon independence,\(^25\) and Swahili similarly was not widely spoken in western Kenya during the precolonial period.\(^26\) None of the main ethnic groups in either district have been dominant in national politics (for their respective countries) during the post-independence period.

Moreover, community members are leading players in funding local public goods in both countries, through school committees and water committees in Kenya and through village councils in Tanzania, so it is possible to compare local fund-raising across the two districts. Public finance expenditures were increasingly decentralized in Tanzania during the 1990s, although the central government continues to play the leading role in paying teachers' salaries, as in Kenya.\(^27\)

The East African Citizenship Project—which surveyed representative national samples of eight thousand schoolchildren in Kenya and Tanzania in 1966–67—provides further evidence of commonalities. Results from nearly identical survey instruments administered in both countries on politics, citizenship, and ethnicity support the claim that political attitudes were extremely similar. In fact, Koff and Von der Muhll\(^28\) conclude that “there is an often startling similarity between the responses given by Kenyan and Tanzanian students. . . . The cross-national similarities are so constant as to raise questions about the significance of the nation-state as a differentiating variable.”\(^29\)

Of course, this is not to say that Kenya and Tanzania were identical at independence. Nairobi was the cosmopolitan capital of British East Africa, with a growing industrial base, and Kenya had experienced a much more violent path toward independence than Tanzania, most dramatically illustrated in the so-called Mau-Mau uprising of the 1950s. Tanzania is also somewhat more ethnically diverse than Kenya on the whole, although the differences are relatively minor.\(^30\) Nonetheless, many social scientists have taken the fundamental similarity of


\(^{29}\) A limitation is that the dataset does not contain preindependence information, and since nation-building policies had begun to diverge by 1967 (the year of the Arusha Declaration), it cannot serve as a baseline.

\(^{30}\) For a discussion of preindependence differences, see Court and Kinyanjui (fn. 17).
Kenya and Tanzania as an analytical starting point, and this article follows in that tradition. Beyond East Africa, other scholars have also used the colonial-era placement of other African national borders as natural experiments to evaluate the impact of policies and institutions.

**POSTINDEPENDENCE DIVERGENCES**

Despite these geographical, historical, and institutional commonalities in western Kenya and western Tanzania, postcolonial central governments in the two countries have pursued radically different public policies toward ethnicity, and we argue that this divergence has had an impact on current ethnic relations.

National language policy is an area of major differences. Barkan writes that “the potential for [ethnic] conflict in Tanzania has . . . been muted by the near universal use of Kiswahili, which replaced English as the country’s official language in the mid-1960s.” Swahili (or Kiswahili in East Africa) is an indigenous African language originating on the Indian Ocean coast of East Africa and is seen as largely ethnically neutral in both countries. The Tanzanian regime quickly pushed for total Swahilization of government administration after independence and established the National Swahili Council to promote its use in all spheres of public life. In contrast, although Swahili has long been widely spoken in Kenya as a lingua franca, it competes with English and local “vernacular” languages such as Kikuyu in official settings, including political forums and schools. For example, vernaculars—rather than Swahili—typically serve as the medium of primary school instruction through the fourth grade; after that English becomes the principal language.

The public school curriculum in Tanzania has been aggressively employed as a nation-building tool. The curriculum stresses common Tanzanian history, culture, and values and inculcates students with a strong sense of national and Pan-African identity. By the late 1960s political edu-

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31 Barkan (fn. 18).


34 Barkan (fn. 18).

cation was included as a standard curriculum subject in both primary and secondary school, and it was tested on national exams. Moreover, by the 1970s all future teachers were required to serve in the paramilitary national service organization, which indoctrinated them in the ideals of the regime. Prewitt, Von der Muhll, and Court asserted that "Tanzania is unique among African nations in the extent to which it has self-consciously sought to adapt the educational system inherited at independence to the goals of the postcolonial leadership.

Although the Kenyan Ministry of Education made several nation-building pronouncements in the 1960s, Court and Ghai observed that these were merely "vague invocations," as "there [was] little evidence within schools that the rhetoric [was] followed by any serious attempts to make real changes." Nearly twenty years after independence, Court and Kinyanjui concluded that "Tanzanian students have a stronger sense of national identity than their Kenyan counterparts." Unlike in Tanzania, the central government in Kenya has not used the school curriculum to promote a coherent national linguistic or ideological identity: the official geography, history, and civics (GHC) curriculum does not study Kenya as a nation until grade 5. The focus on provincial geography and history in grades 1–4 probably serves to exacerbate regional and ethnic divisions, especially among the many Kenyans who drop out of primary school before grade 5.

Another important component of the reform package carried out in Tanzania was the complete overhaul of local government institutions, with the aim of strengthening village councils and district councils. In Kenya, by contrast, the colonial-era system of centrally appointed tribal


36 Court and Kinyanjui (fn. 17), 67.


38 Prewitt, Von der Muhll, and Court (fn. 16), 222.

39 Koff and Von der Muhll (fn. 28).


41 Ibid., 19.

42 Court and Kinyanjui (fn. 17), 69.

43 Quantitative evidence from current schoolbooks also suggests that the Kenyan curriculum is considerably less Pan-Africanist in orientation than the Tanzanian curriculum. As a rough measure of curricular emphasis, we counted the number of times the word "Africa" (or "African") appears in nine current Kenyan and Tanzanian GHC textbooks for grades 3–6 and found more than twice as many instances in the Tanzanian textbooks (66.5 times per book) as in the Kenyan books (28.6).
chiefs has been retained. Kenya has no local government institution comparable in authority to the elected Tanzanian village council. Traditional rural authorities and customary tribal law inherited from the colonial period were completely dismantled in Tanzania upon independence, and this may have played a role in further diminishing the place of ethnicity in Tanzanian public life relative to that in Kenya.

Part of these policy divergences can be attributed to the personalities and philosophies of the respective independence leaders, Jomo Kenyatta and Julius Nyerere. Inspired by a Pan-Africanist and socialist political philosophy, the gifted Tanzanian leader Nyerere forcefully downplayed the role of ethnic affiliation in public life and instead emphasized a single Tanzanian national identity. A founding principle of Nyerere’s ruling TANU political party was “to fight tribalism and any other factors which would hinder the development of unity among Africans.”

The nation-building role of the Kenyan central government could not be more different. The first two postindependence presidents, Kenyatta and Daniel arap Moi, are perceived within Kenya as “tribalists,” political opportunists who thrived on the politics of ethnic division. Ethnicity has become the primary cleavage of political life in Kenya—as in many other African countries—and the Moi regime was widely implicated in arming and financing violent ethnic militias before national elections in 1992 and 1997. The clashes that were fomented left hundreds dead.

Finally, the regional distribution of central government resources—for education, health, and infrastructure—has politicized ethnicity to a far greater extent in Kenya. While the equitable regional distribution of public investment in education, health, and infrastructure has been a centerpiece of Tanzanian socialist policies since the 1960s, the post-independence regime in Kenya heavily favored the ethnically Kikuyu areas that formed the core of Kenyatta’s political support, and the same has been true of political appointments. After 1978 favorableism toward ruling party areas continued, but shifted to reflect Moi’s new ruling coalition centered in the Rift Valley, as documented by Barkan and Chege. This further contributed to the political salience of regional

46 Court and Kinyanjui (fn. 17).
and ethnic identities. A recent article asserts that in Kenya “ruling tribes get more than those out of power. . . . As [Moi] leaves office, the nation is dead, only the tribe remains.”

Taken together, the various components of the Tanzanian reforms—the promotion of Swahili as a national language, political and civic education in schools, the dismantling of tribal authorities, and the relatively equal regional distribution of resources—contributed to the growing strength of a coherent and popular national identity that binds Tanzanians together across ethnic lines. The recent Afro-Barometer public opinion surveys conducted among representative adult samples in twelve countries during 1999–2001 (although not in Kenya, unfortunately) provide further evidence that popular notions of ethnic and national identity in Tanzania are in fact radically different from those in other African countries. When asked the open-ended question, “Which specific group do you feel you belong to first and foremost,” only 3 percent of Tanzanians responded in terms of an ethnic, language, or tribal affiliation, the lowest of the twelve countries in the sample with the exception of small and homogeneous Lesotho (at 2 percent). Instead, 76 percent of Tanzanians answered in terms of an occupational category (for example, farmer). This low rate of attachment to ethnic identity stands in sharp contrast to other countries—Nigeria (48 percent), Namibia (46 percent), Mali (39 percent), Malawi (38 percent), and Zimbabwe (36 percent)—where, as in Kenya, ethnic divisions have been politicized. Of the twelve countries surveyed, Tanzanians also show among the highest levels of support for democracy, confidence in government institutions, and trust in fellow citizens. Chaligha et al. conclude:

President Nyerere’s efforts to mould a national identity (for example, by emphasizing Kiswahili and abolishing traditional rule) have borne fruit. . . . If Tanzania was once an artificial construct of colonial mapmakers, it is no more. . . . [T]he extent of common perception of nationhood and the lack of ethnic considerations in politics is an important reason that Tanzania has been one of the most politically stable countries in the region.

These findings link up with the two theories of diversity and collective action presented in Section II. First, as the national Tanzanian

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49 Afro-Barometer Network, Afro-Barometer Round I: Compendium of Comparative Data from a Twelve-Nation Survey, Afro-Barometer Paper, no. 11 (2002).
50 The other countries are Botswana, Ghana, South Africa, Uganda, and Zambia.
52 Ibid., 11.
identity gains political salience, "taste" theories become less important, since individuals increasingly identify with all citizens as fellow Tanzanians rather than just with their own tribe. They are thus willing to fund public goods that benefit "other" groups. Second, to the extent that the reforms also increase interethnic social interactions—for instance, at the large public meetings regularly held in Tanzanian villages—they also increase the likelihood of stronger "social sanctions" across ethnic groups, thereby reducing free riding and improving local collective action.

IV. Data


Data from Busia, Kenya

Detailed data for 100 of the 337 rural primary schools in Busia and Teso districts were collected from pupil, school, and teacher questionnaires in early 1996 as baseline information for a nongovernmental organization (NGO) assistance project, and not for this study explicitly. A variety of financial and demographic data for these schools were collected in 1996, and a pupil questionnaire was administered by trained survey enumerators in grades 6–8, focusing on pupil schooling background, family educational characteristics and asset ownership, and self-described ethnic affiliation. In total, 100 school questionnaires and 861 teacher questionnaires were also administered. NGO enumerators used portable Global Positioning System (GPS) machines to collect latitude and longitude for all primary schools and water wells in the sample. The analysis below includes the 84 of 100 schools with complete data.

Ethnolinguistic fractionalization (ELF) is used as the principal empirical measure of ethnic diversity in this study, mainly because this measure has the advantage of comparability with the existing literature. Ethnolinguistic fractionalization is the probability two people randomly drawn from the population are from distinct groups, and is closely related to a Herfindahl index; formally, $ELF = 1 - \sum_i$ (Proper-

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53 In 1996 the original Busia district was split in two: Teso district is the northern part of the original district, and Busia district the southern part; for simplicity, the combined area is referred to as "Busia."

54 School questionnaires—filled out by schoolmasters with the assistance of a trained enumerator—contain detailed information on school finances, infrastructure, inputs, and pupil enrollment.
tion of group $i$). In Kenya the principal measure of “local” ethnic diversity for a primary school is computed among all pupils located within five kilometers of that school, where all distances are determined using the GPS data. The five-kilometer radius appears to be a rough upper limit on the distance that children may walk to attend school on a daily basis and thus on what may constitute a school “community,” although the empirical results are robust to radiuses of three to six kilometers (results not shown). These data were created from 1996 government District Education Office examination name lists.

Both the central government and local school committees play important roles in Kenyan primary school finance: while the national Kenya Ministry of Education pays teacher salaries, school committees raise funds locally for desks, classrooms, books, and chalk. Although the teacher salaries and benefits paid by the central government account for most spending—approximately 90 percent—a reduction in local funding could have an important impact to the extent local inputs and teachers are complements in educational production. Each primary school is managed by its own committee, which is composed of class representatives directly elected by parents.

Parents raise local school funds through two mechanisms: school fees and local fund-raising events. Annual school fees are set by the school committee and collected by the headmaster. The other important source of local primary school funding in western Kenya, accounting for approximately one-third of local funding, are village fund-raisers called *harambees*. At these events parents and other community members publicly pledge financial support for a school project (for example, classroom construction). While contributions at these events are supposedly voluntary, school committees often announce expected contributions for parents, and actual contributions may be recorded by the committee. The main school finance outcome for Kenya in this study is total local school funding collected per pupil in 1995 from both fees and *harambees*, while school facilities and inputs—the number of desks per pupil, latrines per pupil, and classrooms per pupil in 1996—are other outcome measures.

Water wells are another important local public good in rural East Africa, since well water is generally safer to drink than alternative water sources, such as stream or lake water, and the lack of safe drinking water is a major public health problem that contributes to the spread of such diseases as amebiasis, cholera, and schistosomiasis. The vast ma-

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ajority of community wells in western Kenya were constructed in 1982–91 with the assistance of the Finnish government, through an organization called the Kenya-Finland Development Cooperation (KEFINCO). KEFINCO identified well sites in cooperation with communities, dug the boreholes, and provided the equipment for operating the wells. Communities were then responsible for forming well committees in charge of maintenance and collecting usage and repair fees from local residents. The committees operate on a voluntary basis with little explicit public authority for revenue collection, so, as with school funds, their ability to collect fees largely depends on their success in exerting social pressure in the local community.

The data on well maintenance were collected for this study in a survey of 667 wells conducted in Kenya from October 2000 to August 2001 by NGO field-workers for this study. The sample consists of the universe of modern borehole wells constructed between 1982 and 1991 by KEFINCO. The current condition of the wells thus reflects the success of local collective action in maintenance from the 1980s through 2001. The principal dependent variable for well maintenance is an indicator variable that takes on a value of one if water flow was judged “normal” by field-workers, and zero if either no water flows or if water flow is “very low.” Only 56 percent of the wells had “normal” water flow at the time of the survey, suggesting widespread collective action failures.

In the empirical analysis for Kenya, the unit of observation is a “primary school community”; we consider all wells within five kilometers of the school as “assigned to” that primary school. Unlike Tanzania, rural Kenya does not have coherent villages with fixed boundaries, and for this reason the Kenya analysis focuses on school communities; this is also necessary in order to perform joint tests across the school and well outcomes, as described below.

Data from Meatu, Tanzania

Data collection was carried out in all seventy-one villages in Meatu, Tanzania, during 2001–2 by NGO field staff. The surveys were designed to be comparable with the existing survey data from Kenya, but considerable additional information was also collected. The village council survey data relied both on interviews with village council members and on local administrative records—especially the tax register. Specifically, we collected retrospective information on all village public goods projects by year from 1997 to 2002, including contributions from community members as well as outside funding from government agencies and NGOs. Field-workers also observed the current condition of primary
schools and water well maintenance using the same survey instruments employed to collect the Kenya data, as well as information on road and health clinic infrastructure. They recorded total village population, and they determined ethnic composition by gathering the ethnic affiliation of individuals in a 20 percent random sample of the tax register (with the assistance of local officials, enumerators counted off each fifth name in the tax register for inclusion in the sample). The tax register includes all village adult males; unfortunately there are no comparable data for females.

Once the village council has decided on a local project and set contribution levels, local contributions are collected in cooperation with subvillage chairs (each village contains six to ten subvillages) and the leaders of the local elders council. Each household is obliged to make a standard contribution, which may be in cash or in kind, usually as materials and labor. Some funding for local projects in Tanzania also comes from the Meatu District Council (MDC), other Tanzanian government agencies (for example, the Tanzanian Social Action Fund, TASAF), or NGOs in a few cases, and this assistance is typically structured as cost sharing: for example, the MDC provides assistance for classroom construction provided that the village council raises a certain portion of the costs locally. NGOs often follow similar cost-sharing policies both in Meatu, Tanzania, and in Busia, Kenya; hence, in both districts the bulk of funding, materials, and labor for public goods is raised locally, with some limited outside assistance. The local public finance outcomes described in this article thus mainly capture the ability of communities to raise funds and supplies locally, as well as their ability to secure some additional funds from other donors. Both are important collective action outcomes in their own right.

We also collected information on social capital, including local community groups, attitudes regarding trust and cooperation, and attendance at village meetings (total attendance at all 2001 meetings per household). Village meetings are held for local elections, to discuss development projects, and to disseminate information from higher levels of government (for example, to promote HIV/AIDS awareness), and they serve as the focal point for local politics.

The 2001–2 household surveys were administered to approximately 15–20 households from each village, with 1,293 households surveyed in all. Households to be surveyed were randomly chosen from the tax register, as were neighbors of the register households. The household survey included detailed socioeconomic, migration, and demographic questions and a consumption expenditure module for a subset of
households, and these data are used to create village controls. Five villages are missing at least some survey data, reducing the final sample to sixty-six villages.56

V. IDENTIFYING ETHNIC DIVERSITY EFFECTS

There are two steps in the econometric identification strategy. First, we estimate the impact of ethnic diversity on local collective action outcomes in both Kenya and Tanzania. Second, we argue that differences across the districts—in terms of the impact of ethnic diversity on local outcomes—were most likely caused by divergent nation-building policies, rather than by other factors.

ETHNIC DIVERSITY IN KENYA

Busia and Teso districts in Kenya are moderately ethnically diverse: the largest ethnic groups are the Luhya (67 percent of the sample), Teso (26 percent), and Luo (5 percent). The Luo and Teso are Nilo-Saharan ethnolinguistic groups with pastoralist traditions, and the Luhya are a Bantu (Niger-Kordofanian) group. Luhyas are the majority ethnic group in southern Busia district and Tesos are numerically dominant in the north, although there are minority communities spread throughout the area.

The main concern regarding econometric identification is the possibility that it could be local unobservable characteristics correlated with ethnic diversity in each district—rather than ethnic diversity itself—that are in fact driving the estimated diversity effects. The exogeneity of ethnic land-settlement patterns forms a basis for the empirical identification strategy in Busia, as a variety of evidence suggests that current levels of local ethnic diversity in Busia district is largely the product of historical accident rather than recent migration: “The nineteenth century was a time of considerable unrest throughout the District, with conflict between the Luhya groups, Luo, Teso and Kalenjin.”57 Were writes that “various factors—famine, epidemics, domestic disputes, the spirit of adventure and warfare—made the inhabitants of the region extremely mobile” from the seventeenth to the nineteenth century.58

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56 Ethnic diversity (ELF) in the villages with missing data is nearly identical on average to diversity in villages that are included in the sample, and the small difference in ELF (0.16 to 0.13) is not statistically significantly different than zero at traditional confidence levels. Hence, even if the five villages with some missing data happened to be poor performers in terms of local collective action, the inclusion of these villages would be unlikely to substantially change the main empirical results.

57 Government of Kenya (fn. 24).

The emergence of British colonial authority in western Kenya in 1894 brought an end to wars and cattle raiding, as well as to the large movements of populations that accompanied them. Morgan and Shaffer write that ethnic land claims were "frozen by the Colonial Government by the demarcation of 'African Land Units.' This prevented the expansion of tribes into another's territory and thus eliminated the principal source of major inter-tribal wars." Land demarcation and individual land registration during the postcolonial period "has frozen the previously fluid situation and virtually halted the traditional mobility." Busia was free of European settlement—and resulting disruptions of land claims—during the colonial period.

Comparing residential ethnic composition at the geographic division level in 1996 (using pupil survey data) with residential composition in 1962 (using Kenyan census data) suggests that ethnic residence patterns have been largely stable: the ordering of residential ethnic diversity across geographic divisions is identical in 1962 and 1996 (results not shown). Recent survey evidence also suggests that land sales and residential mobility are extremely rare. Although residential patterns in this area are stable, households can choose which primary school their children will attend and which water well to use, creating endogenous populations of schoolchildren and water users. To limit bias due to endogenous sorting within walking distance of the household, we employ ethnic diversity within five kilometers of each school as our principal local diversity measure in the Kenya analysis, rather than the diversity of actual pupils or well users.

ETHNIC DIVERSITY IN TANZANIA

An empirical methodology similar to that used in the Kenya analysis is used to estimate the relationship between local ethnic diversity and provision of public goods in Meatu, Tanzania. As in Kenya, understanding patterns of land settlement is central to the econometric identification strategy. Meatu district was relatively sparsely populated until the mid-twentieth century, after which increasing numbers of ethnically Sukuma, Taturu, and Nyiramba individuals from neighboring areas migrated there in search of farmland, so unfortunately, unlike

60 Government of Kenya (fn. 24).
62 Miguel and Gugerty (fn. 6).
Busia, Kenya, there is no compelling historical migration "natural experiment" that can be used to identify effects of ethnic diversity. Short-run endogenous local sorting is less salient in Meatu, however, since individuals live in separated villages and population density is lower; hence, households generally have fewer schools and wells to choose from.

The relative stability of residential patterns helps rule out the most obvious forms of recent sorting in response to either socioeconomic or public good variation. There was local migration associated with the forced villagization program of the mid-1970s (described below), but there is no evidence villagization per se significantly altered local ethnic diversity since individuals seldom moved more than a few miles from their original homes.\(^3\) Stringent residency regulations during the socialist period further dampened migration, and, as in rural Kenya, the absence of a well-functioning land market currently contributes to low rates of mobility. Survey evidence also indicates that residential patterns have in fact been largely stable in Meatu recently: to illustrate, over 80 percent of the young adult (under thirty years) male respondents in the sample have been living in the same village for at least ten years, and as a further check, rates of residential stability are also nearly identical in relatively high ethnic diversity (\(ELF > 0.15\)) and low diversity (\(ELF \leq 0.15\)) villages, at 80 and 83 percent, respectively.\(^4\)

Moreover, to the extent that there is endogenous sorting in Meatu, Tanzania, the sorting bias is likely to be negative. There is a widespread view that diverse areas—mainly in Nyalanja division—are marginalized and have relatively poor-quality land, and the unconditional correlation between village per capita income and diversity is in fact negative (although not statistically significant; results not shown). To the extent that land quality is unobserved and is not entirely captured by other controls, this would negatively bias estimated diversity effects, insofar as poorer villages are less successful in the provision of public goods.

The above arguments do not definitively eliminate omitted variable bias as a potential problem, and it remains the central concern with the identification strategy in Meatu district. Yet the fact that omitted variable bias is likely to be negative argues against the existence of negative diversity effects in this case, since estimates of ethnic diversity effects in Meatu are near zero or even positive, as discussed below.

\(^4\)It is natural to focus on male residential stability. Since marital exogamy is practiced in this region, most women move to their husband's home upon marriage.
IDENTIFYING THE IMPACT OF NATION BUILDING

The two main methodological weaknesses of the cross-district comparison are, first, the small sample size of only two countries and, second, the lack of longitudinal data on collective action outcomes, which would greatly strengthen the case that the two districts were in fact largely comparable in the 1960s and have since diverged. However, these methodological weaknesses are impossible to overcome at this time, given the lack of internationally comparable data on ethnic policies, historical patterns of ethnic relations, and current local public goods outcomes.

Unfortunately, there is no quantitative evidence (that we are aware of) on interethic cooperation in these districts in the preindependence period. But as there is also no compelling evidence suggesting that ethnic relations were dramatically different in the two areas, we maintain the assumption that current interethnic cooperation in the two districts would have been largely similar in the absence of the nation-building policy divergences described in Section III.

A third concern is that preexisting ethnic relations endogenously affected the nation-building policies that were ultimately chosen, such that causality actually runs from ethnic cooperation to nation-building, rather than vice versa. Although the nation-building policies chosen in Kenya and Tanzania, as well as the characteristics of postindependence leaders, may indeed have been related to the nature of average ethnic relations at the national level in both countries, all that is necessary for a valid comparison of the impact of nation-building policies on Busia, Kenya, and Meatu, Tanzania, is that the choice of national policies was not directly related to ethnic relations in these two small and politically marginal districts, and this seems plausible.

The study is also unable to separately estimate the effects of various components of the Tanzanian nation-building package, in language, education, and institutional reform. These components may in principle interact in complex and multiple ways, and we are entirely unable to estimate these interactions in this study. Instead, the effects presented below should be seen as the estimated impact of the entire Tanzanian reform package on local collective action in diverse areas, relative to Kenya.

A reading of the recent history of western Kenya and western Tanzania indicates that differences in current levels of interethic cooperation across Busia, Kenya, and Meatu, Tanzania, are most likely due to their strikingly different nation-building policies during the post-
colonial period, rather than to other factors. Other than the nation-building policies described above, the most sustained policy divergences between Busia, Kenya, and Meatu, Tanzania, occurred during the 1970s: from August 1974 through 1977 the Shinyanga regional government pursued a policy of forced villagization in which over 340,000 rural residents were compelled to leave their homes and move to nearby villages, sometimes by force—including the burning of resistors’ homes. The centerpiece of Tanzanian socialism was the goal of concentrating Tanzania’s scattered populations into Ujamaa villages, where government could, in theory, more efficiently provide public services and where collectivized farming would take place. Nationally, during this period of radical reform, Tanzanian economic growth rates lagged far behind Kenyan rates.

If anything, however, the policies of this period appear likely to have inflamed ethnic tensions rather than promoting cooperation: the non-Bantu Taturu and Hadzabe minority ethnic groups were particularly hard hit by villagization, since it contributed to the erosion of their traditional seminomadic lifestyles. To the extent therefore that ethnic relations are currently better in western Tanzania than in western Kenya, it is unlikely to be due to the arbitrary and violent villagization policies—and anemic economic growth—of the Ujamaa period. Yet it is impossible to rule out definitively that villagization per se improved interethnic cooperation in Tanzania over the long run by promoting frequent social interactions among members of different ethnic groups in the new villages.

Two other considerations that might account for differences between western Kenya and western Tanzania merit discussion. First, if greater prosperity allows communities to partially overcome ethnic divisions in local fund-raising, this would imply that diverse communities in the Kenyan district would likely have somewhat better outcomes than in the Tanzanian district—but we find the opposite, as discussed below.

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65 Mwapachu (fn. 63).  
66 Dean E. McHenry, Jr., Tanzania’s Ujamaa Villages (Berkeley: Institute of International Studies, University of California, Berkeley, 1979).  
67 Barkan (fn. 18).  
68 An alternative explanation for the existence of a stronger national identity in Tanzania could be the successful 1979 war repelling a Ugandan invasion. Although victorious wars have long been credited with promoting national unity, this hypothesis appears unlikely here for at least two reasons: first, the Uganda war lasted only three months, and second, the war led to an exhausting six-year occupation of Uganda that nearly bankrupted the country and contributed to the financial crisis of 1982; see D. F. Gordon, “International Economic Relations, Regional Cooperation, and Foreign Policy,” in Joel D. Barkan, ed., Beyond Capitalism versus Socialism in Kenya and Tanzania (Boulder, Colo.: Lynne Rien-ner, 1994).
suggesting that our estimated effects may be lower bounds. A second possible channel is different levels of foreign aid to Kenya and Tanzania. However, the focus of this study is local community fund-raising and there is little external assistance to these districts.\textsuperscript{69}

**Econometric Estimation Equation**

The basic empirical specification is presented in Equation 1. \( Y_{ik}^k \) is the outcome measure, where \( k \) may denote local school funding, school infrastructure quality, well maintenance, or another outcome. \( ELF^k_{ic} \) is the measure of local ethnic diversity (ethnolinguistic fractionalization), where \( i \) denotes a community (within five kilometers around a school for Kenya, and a village for Tanzania), and \( c \) denotes the country. \( X_{ic} \) is a vector of local socioeconomic, demographic, and geographic controls.\textsuperscript{70}

\[
Y_{ic}^k = a^k + X_{ic}' \beta^k + \tau^k ELF_{ic} + u_{ic}^k
\]

Regression disturbance terms are assumed to be independent across geographic zones (Kenya) or wards (Tanzania) but are clustered within the zones or wards (results are similar when disturbance terms are allowed to be spatially correlated across schools using the method in Conley\textsuperscript{71} results not shown).

Equation 2 presents the empirical estimation framework for the cross-district comparison, where data are pooled from both countries. An indicator variable is included for Kenyan communities (\( KENYA_k \)) to capture any differences in average outcomes across the two districts (for instance, due to differences in local fund-raising institutions or in average socioeconomic status across Busia and Meatu), and this term is also interacted with the vector of local controls:

\[
Y_{ic}^k = a_1^k + a_2^k KENYA_k + X_{ic}' \beta_1^k + \{X_{ic} * KENYA_k\}' \beta_2^k + \tau_1^k ELF_{ic} + \tau_2^k \{ELF_{ic} * KENYA_k\} + \mu_{ic}^k
\]

captures the impact of ethnic diversity on local outcomes in Tanzania for outcome \( k \), while \( \tau_1^k + \tau_2^k \) is the effect in Kenya. The main hypothe-

\textsuperscript{69}Only six of eighty-four sample schools report having received over U.S.$100 in outside funding in the 1996 survey, and U.S.$100 is a low level for schools with three hundred to four hundred students on average. Similarly, a minority of projects in the Tanzanian district received any external central government or NGO assistance, and in many cases the amounts received were modest.

\textsuperscript{70}Unfortunately, there are no data on income (or consumption expenditures) for the Kenyan villages, so income cannot be included as a control variable in the main regressions.

sis of this article can be restated as $H_0: \tau_{ij}^k = 0$, jointly for all outcomes $k$. Rejecting this hypothesis means that ethnic diversity has a significantly different effect on local collective action in the two districts under study, and this can be interpreted as the difference between the effects of the exceptionally serious Tanzanian nation-building policies versus policies in Kenya that may have exacerbated ethnic divisions.

The existence of multiple collective action outcomes provides additional statistical power to reject the hypothesis that the impact of diversity is the same in the two districts, since outcomes for a given village are only imperfectly correlated due to various idiosyncratic factors, for instance, the competence of local committee officials who deal with schools and water. To illustrate, the correlation between desks and classrooms per pupil in Busia, Kenya, is approximately 0.4, while the correlation between school funding per pupil and the quality of well maintenance is positive but low, at only 0.1; similar patterns hold in Meatu, Tanzania. So the confidence interval around the estimated impact of diversity when data are pooled across outcomes is considerably narrower than the interval for any single outcome. We use seemingly unrelated regression (SUR), in which disturbance terms are allowed to be correlated across outcome measures for a village (or school) during hypothesis testing, to test whether the overall effect of ethnic diversity differs across Busia and Meatu.

SUR regression coefficient estimates are identical to OLS here since the explanatory variables are the same for all outcomes. The advantage of SUR lies in allowing us to perform joint hypothesis tests utilizing information across all five regressions. When there is limited correlation in village disturbance terms across the different dependent variables, this method is equivalent to an increase in sample size—and this explains why statistical significance may be higher for SUR hypothesis tests than for any single OLS coefficient on its own.

VI. EMPIRICAL RESULTS FROM WESTERN KENYA AND WESTERN TANZANIA

DESCRIPTIVE STATISTICS

Average levels of local ethnic diversity are similar in the two districts, although somewhat higher in the Kenyan district: the average level of ELF in Busia, Kenya, is 0.23 and in Meatu, Tanzania, 0.13 (see Table 1, panel A). Nonetheless the supports of the two local ELF distributions

### Table 1
**Descriptive Statistics**

<table>
<thead>
<tr>
<th>Panel A: Data for Tanzania and Kenya</th>
<th>Meatu District, Tanzania</th>
<th>Busia District, Kenya</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std Dev.</td>
</tr>
<tr>
<td>Local ethnic fractionalization (ELF)</td>
<td>0.13</td>
<td>0.16</td>
</tr>
<tr>
<td>Average years of education</td>
<td>4.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Proportion formal sector employment</td>
<td>0.06</td>
<td>0.07</td>
</tr>
<tr>
<td>Proportion of homes with iron roofs</td>
<td>0.26</td>
<td>0.20</td>
</tr>
<tr>
<td>Proportion households grow cash crops</td>
<td>0.61</td>
<td>0.25</td>
</tr>
<tr>
<td>Proportion households own cattle</td>
<td>0.47</td>
<td>0.17</td>
</tr>
<tr>
<td>Proportion Catholic</td>
<td>0.17</td>
<td>0.12</td>
</tr>
<tr>
<td>Annual expenditures on local primary school projects per pupil (U.S.$)</td>
<td>4.88</td>
<td>3.90</td>
</tr>
<tr>
<td>Desks per primary school pupil</td>
<td>0.19</td>
<td>0.09</td>
</tr>
<tr>
<td>Latrines per primary school pupil</td>
<td>0.011</td>
<td>0.005</td>
</tr>
<tr>
<td>Classrooms per primary school pupil</td>
<td>0.013</td>
<td>0.005</td>
</tr>
<tr>
<td>Teachers per primary school pupil</td>
<td>0.013</td>
<td>0.004</td>
</tr>
<tr>
<td>Proportion wells with “normal water flow”</td>
<td>0.57</td>
<td>0.37</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B: Data for Tanzania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of households per village</td>
</tr>
<tr>
<td>Annual per capita consumption expenditures (U.S.$)</td>
</tr>
<tr>
<td>Gini coefficient of annual per capita consumption expenditures (at village level)</td>
</tr>
<tr>
<td>Annual local expenditures on all public goods projects, per household (U.S.$)</td>
</tr>
<tr>
<td>Annual local expenditures on health and water well projects, per household (U.S.$)</td>
</tr>
<tr>
<td>Annual local tax collection, per household (U.S.$)</td>
</tr>
<tr>
<td>Average number of completed local public goods project, per year</td>
</tr>
<tr>
<td>Average household spending on local taxes and school expenses (U.S.$) [HH Survey]</td>
</tr>
<tr>
<td>Wells with normal water flow, per household</td>
</tr>
<tr>
<td>Average road quality (scale 1–4)</td>
</tr>
<tr>
<td>Total community groups, per household</td>
</tr>
</tbody>
</table>
Table 1 (cont.)

<table>
<thead>
<tr>
<th>Panel B: Data for Tanzania</th>
<th>Meatu District, Tanzania</th>
<th>Busia District, Kenya</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std Dev.</td>
</tr>
<tr>
<td>Community group memberships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[HH survey]</td>
<td>2.25</td>
<td>0.93</td>
</tr>
<tr>
<td>Proportion survey respondents who are community group members [HH Survey]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Village meeting attendance, per household</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportion households attending a village meeting [HH Survey]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In general, can you trust people in other tribes?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spirit of cooperation across tribes in village, proportion stating &quot;above average&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Village unity, proportion stating &quot;above average&quot;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nation is more important than tribe to respondent</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Busia, Kenya, data are from the 1996 ICS School and Pupil Questionnaires, 1996 Government Examination Name lists, and Global Positioning Systems (GPS) readings taken by NGO field-workers. Each Kenyan data point refers to a primary school or to the five kilometer radius around a school (in the case of the ethnic composition and water well maintenance). Meatu, Tanzania, data are from the 2001-2 household village council surveys, and ethnicity measures are for the village, computed using a 20 percent random sample of the village tax register.

For “Annual local expenditures on primary school projects per pupil (U.S.$),” the Kenyan data are from school records about parent and community contributions to the school in 1995. For Tanzania, local project values were obtained from the Meatu District Council and the Dutch Rural Development Programme, and then combined with 2001-2 village council survey information on the types of project completed in each village to determine the overall value of local project activity. Thus measures for the two countries are not entirely equivalent. All dollar figures for both countries are in 2002 U.S.$.

Local characteristics (education, employment, etc.) for Kenya are from the 1996 Pupil Questionnaire, and are data about pupils’ fathers. Local characteristics for Tanzania are from the 2001-2 household survey, in which both men and women were surveyed, though two-thirds of respondents were men. The gender of respondents may partially explain differences in average reported socioeconomic characteristics between Busia, Kenya, and Meatu, Tanzania, since educational attainment and formal sector employment are higher among men in both countries. In addition, the Tanzanian sample contains both men and women, while the Kenyan sample contains only men (fathers); some Tanzanian respondents were also elderly, and the elderly tend to have less education and formal employment.
are nearly identical, ranging from 0 to 0.6, and there is considerable variation in local ethnic diversity in both districts. Busia, Kenya, is similar to Meatu, Tanzania, along certain socioeconomic characteristics—including the proportion of homes with iron roofs, that grow a cash crop, and livestock ownership—but is better off along several others. For example, both average educational attainment and the proportion of respondents with formal sector employment are substantially higher in Busia, Kenya, than in Meatu, Tanzania. These socioeconomic characteristics, as well as the proportion of Catholic households, are included in all specifications as control variables.

In terms of local public goods, school fund-raising levels are somewhat higher in Meatu, Tanzania, but the quality of school infrastructure in Busia, Kenya, is better along certain dimensions. For example, while there are only 0.013 classrooms per pupil in Tanzania, there are more than twice as many in Kenya and there are also differences in the provision of latrines and in the pupil-teacher ratio across the two districts, with Kenya having better infrastructure—most probably due to its somewhat higher average socioeconomic level. Yet the proportion of wells with “normal water flow” is nearly identical, at 57 percent in Meatu, Tanzania, and 56 percent in Busia, Kenya, suggesting pervasive local collective action failures with respect to water supplies in both districts.

Table 1, panel B, presents data that exist for the Tanzanian district but not the Kenyan district, including average total annual expenditures on local projects. Tanzanian villages funded U.S.$8.65 worth of local public finance projects per household per year on average from 1997 to 2002, and there was considerable variation across villages (standard deviation 6.39). Most of the funding was spent on education, health, and water projects, and villages completed 0.67 projects per year.

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73 These differences are somewhat misleading: the Kenyan data are for pupils’ fathers, while, even though two-thirds of Tanzanian respondents were male and young adults—and thus comparable to the Kenyan respondents—some Tanzanian respondents were women or elderly. Women and the elderly have less education and formal employment than young men on average, and thus actual socioeconomic gaps between the two districts are likely to be somewhat smaller than those reported in Table 1.

74 Religious diversity is not included as an explanatory variable in the analysis since local religious affiliation is not plausibly exogenous due to extensive missionary activity in both districts. Correlations between religious fragmentation and local outcomes would be misleading if evangelical activity is most successful in the poorest areas or in areas with low levels of social capital. The numerical strength of “traditional” religions in Meatu—over 60 percent of the sample—also complicates the interpretation of the religious fragmentation index, since it is difficult to disentangle different traditional belief systems from ethnicity. Finally, since the most politically salient religious cleavage in East Africa is that between Christians and Muslims, the absence of large Muslim populations in these districts blunts the most likely source of religious divisions.
ETHNIC DIVERSITY AND LOCAL COLLECTIVE ACTION OUTCOMES IN KENYA AND TANZANIA

The two key terms in Table 2 are the coefficient estimate on the ELF*KENYA interaction term, which is the difference between the impact of ethnic diversity on the public goods outcome in Kenya versus Tanzania, and the coefficient estimate on local ethnic diversity (ELF), which can be interpreted as the relationship between ethnic diversity and the local public goods outcome in Tanzania. The sum of these two coefficient estimates is the impact of ethnic diversity in Kenya (the bottom row of Table 2).

The estimated relationship between ethnic diversity and local provision of public goods in Busia, Kenya—the sum of the coefficient estimates on the ELF and ELF*KENYA terms—is negative for all five local public goods outcomes on which there are data for both countries (local primary school funding per pupil, desks per pupil, latrines per pupil, classrooms per pupil, and the proportion of water wells with normal flow), and statistically significantly different than zero for school funds per pupil and desks per pupil. The school funds result implies that the change from ethnic homogeneity to average levels of diversity in Busia, Kenya, is associated with a drop of approximately 25 percent in average funding—a large effect—while the estimated effect for Meatu, Tanzania, is positive and statistically insignificant. Figure 2a graphically presents the negative relationship between ethnic diversity versus local school funding in Busia, Kenya, and Figure 2b presents the relationship for desks per pupil.

In Miguel and Gugerty,75 each well is considered a separate data point, and an ethnic diversity measure specific to that well (typically diversity within five kilometers of the well) is constructed. By way of contrast, in Table 2 we examine well maintenance within five kilometers of each primary school and consider the local diversity measure of that primary school as the key explanatory variable. This school diversity measure is a noisy measure of the ethnic diversity of each well, and the resulting attenuation bias is the most likely explanation of why the results in Table 2 are weaker than in Miguel and Gugerty, where the comparable coefficient estimate on local diversity in Busia is −0.26 (standard error 0.14).

In Meatu, Tanzania, the coefficient estimate on ELF is positive for all four primary school outcomes (and statistically significant for latrines per pupil), suggesting that there is not a negative relationship

75 Miguel and Gugerty (fn. 6).
### Table 2
**Ethnic Diversity and Local Public Goods: Kenya and Tanzania**

<table>
<thead>
<tr>
<th>Explanatory Variable</th>
<th>Annual School Spending/ Pupil, U.S. $</th>
<th>Desks/ Pupil</th>
<th>Latrines/ Pupil</th>
<th>Classrooms/ Pupil</th>
<th>Proportion Wells with Normal Flow</th>
<th>F-statistic</th>
<th>H₀: β = 0 p-value (SUR)b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local ethnic diversity (ELF)* Kenya Indicator</td>
<td>-7.7</td>
<td>-0.40**</td>
<td>-0.014</td>
<td>-0.014</td>
<td>0.20</td>
<td>0.02**</td>
<td></td>
</tr>
<tr>
<td>Local ethnic diversity (ELF)</td>
<td>4.1</td>
<td>0.08</td>
<td>0.007**</td>
<td>0.006</td>
<td>-0.26</td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td>Kenya indicator variable</td>
<td>-4.1</td>
<td>-0.08</td>
<td>0.025**</td>
<td>0.024**</td>
<td>-0.43</td>
<td>0.03**</td>
<td></td>
</tr>
</tbody>
</table>

#### Socioeconomic Controls

<table>
<thead>
<tr>
<th>Variable</th>
<th>Annual School Spending/ Pupil, U.S. $</th>
<th>Desks/ Pupil</th>
<th>Latrines/ Pupil</th>
<th>Classrooms/ Pupil</th>
<th>Proportion Wells with Normal Flow</th>
<th>F-statistic</th>
<th>H₀: β = 0 p-value (SUR)b</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average years of education</td>
<td>0.52</td>
<td>0.013</td>
<td>0.0013***</td>
<td>0.0013*</td>
<td>-0.083**</td>
<td>0.08*</td>
<td></td>
</tr>
<tr>
<td>Proportion formal sector employment</td>
<td>-11.0</td>
<td>0.30*</td>
<td>0.015**</td>
<td>0.016</td>
<td>-0.31</td>
<td>0.38</td>
<td></td>
</tr>
<tr>
<td>Proportion homes with iron roofs</td>
<td>-1.9</td>
<td>-0.05</td>
<td>-0.006***</td>
<td>-0.002</td>
<td>0.12</td>
<td>0.82</td>
<td></td>
</tr>
<tr>
<td>Proportion households grow cash crops</td>
<td>-0.8</td>
<td>-0.03</td>
<td>0.000</td>
<td>-0.001</td>
<td>-0.12</td>
<td>0.96</td>
<td></td>
</tr>
<tr>
<td>Proportion households own cattle</td>
<td>-2.6</td>
<td>-0.05</td>
<td>0.011***</td>
<td>-0.002</td>
<td>-0.27</td>
<td>0.37</td>
<td></td>
</tr>
<tr>
<td>Proportion Catholic</td>
<td>1.9</td>
<td>-0.06</td>
<td>-0.003</td>
<td>-0.011</td>
<td>-0.64</td>
<td>0.37</td>
<td></td>
</tr>
</tbody>
</table>

| Socioeconomic controls* Kenya Indicator | Yes | Yes | Yes | Yes | Yes |

<table>
<thead>
<tr>
<th>Measure</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²</td>
<td>0.15</td>
</tr>
<tr>
<td>Root MSE</td>
<td>3.07</td>
</tr>
<tr>
<td>Number of observations</td>
<td>150</td>
</tr>
<tr>
<td>Ethnic diversity effect, Kenya</td>
<td>-3.6*</td>
</tr>
</tbody>
</table>

*Huber robust standard errors in parentheses. Significantly different than zero at 90% (*), 95% (**), 99% (***)) confidence. Regression disturbance terms are clustered at the zone level for Kenya, and at the ward level for Tanzania. The data contain eighty-four primary schools in Busia, Kenya, and sixty-six villages in Meatu, Tanzania.

bThe hypothesis that the coefficient estimate on each term is equal to zero across the five outcomes in the table is tested using SUR in the final column.
between village diversity and local school funding there. For one outcome—the proportion of water wells with normal flow—the coefficient estimate on ELF is negative but statistically insignificant. However, Table 3 (discussed below) provides more compelling evidence on the water infrastructure in Meatu, Tanzania: the number of functioning wells per household is not in fact any lower in diverse villages. Figure 2c graphically presents the weak estimated relationship between ethnic diversity and school funding in Meatu, Tanzania, and Figure 2d presents the relationship for desks; and these offer a sharp contrast to the negative relationships in Kenya.
<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Coefficient Estimate on Local ELF&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Panel A: Public Finance Outcomes, 2001–2 Village Council, Household Data</strong></td>
<td></td>
</tr>
<tr>
<td>Annual total local expenditures on all public goods projects, per household (U.S.$)</td>
<td>7.0</td>
</tr>
<tr>
<td></td>
<td>(8.3)</td>
</tr>
<tr>
<td>Annual local expenditures on health and water well projects, per household (U.S.$)</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td>(1.3)</td>
</tr>
<tr>
<td>Total annual local tax collection, per household</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>(2.7)</td>
</tr>
<tr>
<td>Average number of completed local public goods projects, per year</td>
<td>−0.33</td>
</tr>
<tr>
<td></td>
<td>(0.42)</td>
</tr>
<tr>
<td>Average household spending on local taxes and school expenses (U.S.$)</td>
<td>7.3</td>
</tr>
<tr>
<td></td>
<td>(11.0)</td>
</tr>
<tr>
<td><strong>Panel B: Local Infrastructure</strong></td>
<td></td>
</tr>
<tr>
<td>Wells with normal water flow, per household</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>(0.006)</td>
</tr>
<tr>
<td>Average road quality (scale 1–4)</td>
<td>−0.0</td>
</tr>
<tr>
<td></td>
<td>(0.4)</td>
</tr>
<tr>
<td><strong>Panel C: Community Group and Village Meeting Activity</strong></td>
<td></td>
</tr>
<tr>
<td>Total community groups, per household (Source: Village Council Survey)</td>
<td>0.027</td>
</tr>
<tr>
<td></td>
<td>(0.017)</td>
</tr>
<tr>
<td>Household community group memberships, total (Source: Household Survey)</td>
<td>−0.42</td>
</tr>
<tr>
<td></td>
<td>(0.69)</td>
</tr>
<tr>
<td>Proportion household survey respondents who are community group members</td>
<td>−0.27**</td>
</tr>
<tr>
<td>(Source: Household Survey)</td>
<td>(0.10)</td>
</tr>
<tr>
<td>Village meeting attendance, per household (Source: Village Council Survey)</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>(0.94)</td>
</tr>
<tr>
<td>Proportion households attending a village meeting, 2001–2</td>
<td>0.02</td>
</tr>
<tr>
<td>(Source: Household Survey)</td>
<td>(0.07)</td>
</tr>
<tr>
<td><strong>Panel D: Subjective Measures of Trust and Cooperation, 2001–2 Household Data</strong></td>
<td></td>
</tr>
<tr>
<td>In general, can you trust people in other tribes?</td>
<td>0.20**</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
</tr>
<tr>
<td>Spirit of cooperation across tribes in the village, proportion stating “above average”</td>
<td>0.26**</td>
</tr>
<tr>
<td></td>
<td>(0.10)</td>
</tr>
<tr>
<td>Village unity, proportion stating “above average”</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>(0.18)</td>
</tr>
<tr>
<td>Nation is more important than tribe to respondent</td>
<td>−0.15</td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
</tr>
</tbody>
</table>

<sup>a</sup> Huber robust standard errors in parentheses. Significantly different than zero at 90% (*), 95% (**), 99% (***) confidence. Regression disturbance terms clustered at the ward level. The data is for 66 villages in Meatu, Tanzania. The socioeconomic controls are as in Table 2.

<sup>b</sup> Using SUR across the twelve outcomes in Table 2 and Table 3 Panels A–B, the hypothesis that the coefficient estimate on ELF is equal to zero is not rejected at traditional confidence levels (F-statistic = 1.0, p-value = 0.46).
The key coefficient for our purposes is that on the $ELF^{*}KENYA$ term, which captures how the relationship between ethnic diversity and local public goods differs between Busia, Kenya, and Meatu, Tanzania. We find that the coefficient estimate is negative in four of the five outcomes we examine (with $t$-statistic $> 1$ for all four) and is negative and statistically significant at 95 percent confidence for desks per pupil. The seemingly unrelated regression (SUR) method combines information across dependent variables; using this method we reject the hypothesis that the coefficient estimate on $ELF^{*}KENYA$ is equal to zero at over 95 percent confidence ($F$-statistic $= 2.7$, $p$-value $= 0.02$). In other words, local ethnic diversity has a significantly more negative effect on local public goods provision in Busia, Kenya, than in Meatu, Tanzania. This is the main result of the article. Similarly, using SUR we reject the hypothesis that the effect of local ethnic diversity in Kenya is zero at over 95 percent confidence ($F$-statistic $= 2.7$, $p$-value $= 0.02$) but cannot reject the hypothesis that ethnic diversity is unrelated to local public goods outcomes in Tanzania ($F$-statistic $= 1.0$, $p$-value $= 0.44$).

The SUR results are robust to aggregating the data up to the ward level (for Meatu, Tanzania) and the zone level (for Busia, Kenya); the sixty-six Tanzanian villages in our sample are located in nineteen wards and the eighty-four Kenyan primary schools are in twenty-two zones (results not shown). The main empirical results are also robust to the inclusion of a linear ethnic diversity measure—the proportion of the largest ethnic group in the community—as an alternative diversity measure, and robust to constraining the coefficient estimates on the socioeconomic controls to be the same in the two countries (results not shown).

OTHER PUBLIC FINANCE AND SOCIAL OUTCOMES IN MEATU, TANZANIA

The remaining results from the Tanzanian district relate to various additional public finance and social capital measures. Since we do not have comparable data from the Kenyan district, we are unable to employ the same identification strategy in estimating the impact of divergent nation-building policies across the two countries. Nonetheless, these relationships are interesting in their own right.

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76 Ethnic diversity is unlikely to be proxying for higher local income inequality in Tanzanian villages, since the correlation between diversity and inequality is small, negative, and not statistically significant (regression not shown).

77 We attempted to examine analogous issues in the Kenyan district, but data on registered community group membership were only available for part of the study area. Restricting attention to registered community groups is also not ideal, since many groups are not registered in Kenya. The relationship between local diversity and registered group membership in this limited sample is typically negative (not shown), but due to the data limitations mentioned above, we do not highlight the Kenyan results.
Ethnic diversity is unrelated to a range of other local public finance outcomes in Meatu, Tanzania. Total local expenditures per household on public goods projects—perhaps the best estimate of overall village council activity—is not significantly related to local ethnic diversity, and the coefficient estimate is near zero (coefficient estimate U.S.$7.0, standard error 8.3). The same holds for local expenditures on health and water projects, total local tax collection, the number of completed local public goods projects, and average spending on local taxes and school expenses (Table 3, panel A). There is no evidence that the quality of local water well or road infrastructure is related to local ethnic diversity (panel B). The main results are robust to the inclusion of average village per capita income and the village income Gini coefficient as explanatory variables (results not shown). We cannot reject the joint hypothesis that the coefficient on ELF is equal to zero for all twelve local public finance outcomes for Meatu presented in Table 2 and Table 3, panels A–B (F-statistic = 1.0, p-value = 0.46).

The results on ethnic diversity and social capital in Meatu, Tanzania, are mixed: there is no significant relationship between village ethnic diversity and the total number of community groups (usually self-help groups) or with attendance at village meetings, and in fact the point estimates on ethnic diversity are positive though insignificant (Table 3, panel C). There is, however, a strong negative relationship between local ethnic diversity and the probability that a household survey respondent was a member of a community group, echoing recent findings from the United States.78 This membership effect is reasonably large: the change from complete ethnic homogeneity to average levels of diversity in the district is associated with an 11 percent drop in group membership.79 Yet individuals in diverse villages express significantly higher levels of trust and cooperation across ethnic lines—perhaps due to more frequent interactions, and thus closer social ties, with people from other ethnic groups in diverse villages (panel D).

Qualitative Evidence from Structured Interviews

Evidence from structured interviews is consistent with the econometric findings and sheds light on how nation-building policies have allowed communities to overcome ethnic divisions in Tanzania.

The case of Matumbai Primary School in Kenya illustrates how low

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78 Alesina and La Ferrara (fn. 8).

79 The correlation between social capital and ethnic diversity is similar in a nationally representative sample of eighty-seven rural Tanzanian clusters, using data from the World Bank's 1995 Social Capital and Poverty Survey (SCPS) and 1993 Human Resource Development Survey (HRDS) (not shown).
interethnic cooperation in Kenya leads to reduced school investment. Matumbai is one of the most ethnically diverse schools in the Kenyan study district, with sizable ethnic Luhya, Teso, and Kalenjin communities. The headmaster of Matumbai stated in a June 2000 interview that ethnic “rivalry over ownership” of the school and over which group “will take control of the school” was the central challenge facing Matumbai. Most parents have refused to participate in community fund-raisers (barambees) or in school meetings in recent years due to a general lack of trust across ethnic groups and the absence of a feeling of “ownership” for the school. As a result, per pupil local school funding in the 1996 survey was one-third of average local funding in Busia and no classrooms had been constructed at the school. The result was that all classes took place under a tree—which meant that school was canceled when it rained. Many other headmasters report similar ethnic divisions in western Kenyan schools, in the absence of an overarching national identity to bind different groups together.

Miguel and Gugerty\(^8\) collected information from Kenyan primary school records on the number of times that school committees imposed sanctions on parents late with their school fees—for instance, embarrassing free riders by announcing the names of parents late with school payments at village meetings or sending a local chief to their home to pressure them to pay their fees. Miguel and Gugerty find that there are significantly fewer sanctions imposed in ethnically diverse villages in the Kenyan district, and the interview evidence mentioned above provides a possible explanation: in diverse Kenyan villages, where community cohesion and trust are low, informal sanctions imposed across ethnic lines are usually ineffective methods of pressuring individuals to contribute to the public good.

In sharp contrast, ethnic divisions are reported to be minimal in the Tanzanian study district: in the 2001 village council surveys, respondents claimed that local ethnic relations were “good” in 97 percent of the villages. Primary school committee members in Imalasek village were puzzled at the suggestion that ethnic divisions could play a role in local school funding decisions. In fact, ethnicity played such a minor role in Imalasek that the committee even had difficulty assigning an ethnic affiliation (Sukuma or Nyiramba?) to an absent committee member in one case. A schoolteacher responded to a question about possible ethnic divisions on the school committee in a November 2000 interview by stating flatly: “This is Tanzania—we do not have that sort of

\(^8\)Miguel and Gugerty (fn. 6).
problem here.” In an August 2002 interview, an official in Mwamishali village explained that there was good cooperation across ethnic groups because “we are all Tanzanians,” and an elder in Mwambiti village responded similarly, suggesting good ethnic relations resulted from the fact that “they [village residents] simply live as Tanzanians” (“Wanaishi kama watanzania tu”; author’s translation from Swahili).

The bottom line from the interviews is that while local politics in Busia are characterized by ethnic “us versus them” appeals, such arguments are considered illegitimate and downright “un-Tanzanian” in Meatu. The elimination of ethnic appeals from acceptable political discourse may be the most important legacy of the Tanzanian nation-building program. Tanzanian nation-building policies foster trust across ethnic groups and a strong sense of identification with members of other groups as fellow Tanzanians; these emotional bonds—together with frequent village meetings and active local government institutions—have allowed diverse Tanzanian communities to thrive where diverse Kenyan communities fail.

VII. CONCLUSION

To summarize the main results, although western Kenya and western Tanzania were similar along key dimensions in the 1960s, after independence Tanzania adopted arguably the most serious nation-building program in sub-Saharan Africa. And in forty years these regions appear to have diverged: ethnic diversity leads to lower public goods funding in western Kenya but is not associated with poor collective action outcomes in western Tanzania.

Moving to the national level for further evidence, Tanzanian economic growth rates were also substantially faster than Kenyan growth rates during the 1990s, measures of governance and institutional quality consistently better, and national politics less violent. Although we should not read too much into the national differences—which are the product of many factors—these broad patterns are also consistent with the claim that Tanzanian nation-building policies have indeed had a beneficial long-run impact on political stability and economic development. On a less formal level, visitors to Kenya and Tanzania are routinely struck by the different popular attitudes toward tribe and nation in the two countries, and the far greater degree of attachment to na-

tional ideals, political leaders, and the Swahili language in Tanzania (although the lingering separatist dispute with Zanzibar indicates that regional divisions have not been entirely eliminated).

Yet there are also legitimate sources of concern regarding nation-building policies: Tanzania may have successfully defused ethnic tensions, but at what cost? First, the articulation and imposition of a single national identity through coordinated public policies may have serious negative costs for communities that do not fit neatly into the dominant national vision, as the well-known examples of the United Kingdom and France illustrate. As a result, in many societies the fear remains that the construction of a national identity will accelerate the erosion of indigenous cultures and perhaps lead to a backlash by those who perceive these policies as a threat to their way of life. Nation-building policies could also be employed by opportunistic ethnic majority leaders to repress the legitimate political aspirations of minorities under the guise of benign reform. Where ethnic divisions are pronounced, the process of nation building may be slow, such that in the short term other solutions—perhaps even the secession of regions dominated by dissident minority groups—may lead to less conflict.

However, even if nation-building policies should not be promoted in every ethnically diverse society, the Tanzanian case suggests that nation building can succeed in an African context without jeopardizing indigenous cultures and languages. Most vernacular languages—like the Sukuma language in Meatu—continue to thrive in nonofficial contexts in Tanzania decades after independence, coexisting with Swahili in homes and markets, just as the Tanzanian national identity coexists with ethnic identities rather than replacing them. In fact, one key to the success of the Tanzanian reform program may be that the central government never made efforts to stamp out vernacular languages or most indigenous cultural practices, or to deny the very existence of particular ethnic groups.

Another reasonable concern about nation building is that, although it binds people together within a society—reducing the likelihood of domestic civil strife—it may provoke nationalistic sentiments that lead to war with neighboring countries. However, once again, this fear has not materialized in Tanzania. In fact, Tanzania has been an excellent neighbor, accepting millions of refugees fleeing armed conflicts in the region, and working consistently for negotiated settlements to regional civil wars—most recently in Burundi. Internal stability and interna-

tional peace have gone hand in hand for Tanzania, perhaps as a result of the Pan-Africanist ideals at the heart of Nyerere’s political philosophy.

Turning to policy implications, nation building will require a dramatic restructuring of cultural, educational, and language policies in many countries, and the centralized nature of this reform runs against current “Washington Consensus” thinking about economic development, which is suspicious of state-led development strategies. Nation building in less developed countries is also likely to be opposed by powerful politicians in the global North, concerned that increasingly nationalistic regimes will promote anti-Northern views. Moreover, the benefits of nation building may take decades to materialize.

Nonetheless, the results of this article suggest that the risks may be worth taking, and that nation building should move onto government policy agendas, especially in Africa. The articulation of new national political identities and institutions has been under way in many African countries since the democratization wave of the early 1990s, which re-opened the public debate on the nature of the state in Africa. As a result, the coming decade may be a special window of opportunity, similar to the postindependence period, for progressive African leaders to adopt elements of the Tanzanian nation-building “model” as investments in long-run social stability and economic growth.