Coping with Partition
Wealth, Security, and Migration in Post-Separation Sudan*

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Abstract

In January 2011, the people of Southern Sudan voted to secede from Sudan, and the country divided into two states six months later. Given this momentous shift in Sudan's political boundaries, this paper asks how Southerners located in northern Sudan decided to structure their lives in the shadow of partition. We ask under what conditions Southerners living in the North at the time of partition were more or less likely to migrate to newly created South Sudan. We find that both the poorest and the wealthiest Southerners are most likely to relocate swiftly, while middle income households depend more heavily on economic opportunities absent in the South and are therefore more likely to resist migration, in spite of the severe security risks associated with remaining in the North. As such, migration decisions in the shadow of Sudan's partition reflect a stark trade-off between security and prosperity for a highly vulnerable minority group. The paper analyzes data from a unique, original panel survey of 1380 respondents drawn from pre- and post-referendum Khartoum and post-referendum South Sudan, including 204 Southerners. The first round of the survey was implemented by the authors in the fall of 2010, and the second round was completed in the fall of 2011.

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1 Introduction

Between January 9 and 15, 2011, nearly 4 million South Sudanese voted in a referendum to determine whether their region should remain part of a unified Sudan or become an independent state. The referendum formed a core part of the Comprehensive Peace Agreement (CPA), signed between the Government of Sudan and the Sudan People's Liberation Movement (SPLM) in 2005 to end the devastating civil war that began in 1983. As polls predicted, Southerners voted overwhelmingly in favor of secession. Official results suggest that more than 98% of voters in South Sudan opted for independence, and South Sudan gained independence in July 2011.

In contrast to the near-unanimous views of residential South Sudanese, opinions on partition have were more divided among Southerners living in northern Sudan, with 58% voting in favor of separation and 42% voting in favor of unity with the North.[1] Attitudes on the referendum process and partition are intimately linked to the difficult choice many Southern residents in northern Sudan faced about whether to migrate to the South, a decision that involves navigating a trade-off between economic opportunities, which are far greater in Khartoum than in the South, and security, which was more precarious for Southerners in Khartoum in the aftermath of the referendum than in many areas of the South.

The thorny situation confronting South Sudanese in northern Sudan at the time of partition is not historically unique, but reflects common problems faced by ethnic minorities that find themselves on the ostensibly wrong side of newly meaningful borders.[2] Muslims in post-partition India, Hindus and Sikhs in newly formed Pakistan, Serbs in Kosovo in the late 1990s, and Eritreans in Ethiopia in the 1990s and 2000s, for example, were subject to violent attacks and were forced to weigh whether an improvement in personal security by way of migration justified leaving behind one's home and livelihood.

In aggregate, individual decisions to migrate can have profound effects on the costs associated with partition and the fate of newly separated territories. But the lively academic debate on partition in political science largely ignores such micro-level decision-making processes and pays little attention to the experiences and strategies of minorities left in post-partition limbo, a gap that this paper helps to fill.[3] One of its most vocal proponents, for example, lauds partition as a solution to intractable ethnic warfare and proposes that

[1] Josh Kron and Jeffrey Gettleman, "South Sudanese Vote Overwhelmingly for Secession," *The New York Times* (January 21, 2011). About 50% of Southerners in our sample said that they were opposed to separation at the time of the first wave of our survey (November and December 2010).

[2] We estimate that approximately a quarter of a million Southerners remained in greater Khartoum — roughly 5% of the metropolitan area's population— at the time of our first round survey. We discuss this estimate in greater detail in Section 4 below.

[3] For the debate about the merits of partition as a solution to ethnic conflict, see for example Kumar (1997); Kaufmann (1998); Sambanis (2000); Sambanis and Schulhofer-Wohl (2009).

partition could have saved "most of the lives" lost in the Bosnian war if the international community "had been able to overcome its squeamishness about large-scale population transfers" (Kaufmann, 1998: 166–7), but ignores both the costs such hypothetical transfers would impose on those being relocated as well as the empirical reality that migration decisions are at least as much in the hands of affected individuals as they are in the hands of the international community.

Our paper contributes to the existing literature by analyzing the decisions made at the individual- and household-level during the partition process. We use data from an original pre- and post-partition panel survey that we conducted in Sudan and South Sudan to ask how Southerners and other minority groups in northern Sudan cope with partition. We highlight in particular the role of household wealth as a key determinant of the decision to migrate. Relocation, we argue, should be most prevalent among the poorest and the richest potential migrants, but not those in the middle of the wealth distribution. Households in the middle are neither sufficiently well-off to be able to easily absorb the substantial costs of relocation, nor poor enough to lack meaningful economic incentives to stay. In the months leading up to and those immediately following the January 2011 referendum, Khartoum's deteriorating security environment for Southerners led households at both the upper and the lower end of the wealth distribution to decamp, but households in the middle were significantly more likely to risk repression, racist discrimination, and even physical injury in staying behind in order to hold on to their economic livelihoods.

The paper proceeds as follows. Section 2 describes the trade-off that we propose exists between migration and the promise of personal security on the one hand and economic opportunity on the other, and our argument that the latter will outweigh the former for individuals in the middle of the wealth distribution. We also suggest here that relatively lower rates of migration among middle income households can have adverse consequences for South Sudanese economic and political development.

Section 3 provides details about sampling procedures and other design features of the original survey data analyzed in this paper. We implemented a panel survey of 1380 randomly sampled residents of greater Khartoum, the sprawling city of 8 million that is home to the vast majority of Southerners living in the North. The analysis presented here forms part of a broader longitudinal study of the micro-level impact of the referendum process and the ongoing partition on intergroup relations and the status and security of minorities in northern Sudan. The first round of the survey was completed in the fall of 2010, and follow-up interviews were carried out in the fall of 2011. In this paper, we focus on our subsample of 204 Southern respondents.

Section 4 asks how population shares in Khartoum have changed since partition, and how many Southerners have left Sudan in the first place. Section 5 then investigates the

determinants of the decision to leave Khartoum and presents evidence that the poorest and the most well-off respondents are particularly likely to migrate.[4]

2 Migration and Conflict

Post-partition minorities that remain on the "wrong" side of a new international border can adopt one of two main strategies: They can try to cross the border, or they can stay behind and try to adapt. Adaptation is not usually easy—South Sudanese in Khartoum are reeling from their loss of citizenship and high rates of street-level intimidation and violence—but neither is relocation, which is expensive, can require liquidating assets at rock-bottom prices, and potentially leaves the migrant in a place with limited economic opportunities.

We argue that a typical migration decision is informed precisely by this trade-off between physical and economic well-being. In the Sudanese case, economic conditions are more favorable in the North, but the South offers greater personal security for Southerners. In fact, this is a trade-off that out-group members face in many peripheral secessions and partitions, because the core of a dividing state has usually benefited disproportionately from past economic development.[5] A minority's secessionist "home" region might offer greater security in the aftermath of a partition, but economic opportunities are often relatively limited.

We hypothesize further that the way in which different individuals trade off economic and security considerations depends on their wealth. Figure 1 illustrates this argument. The horizontal axis shows different wealth levels, from low to high. We place individual utility as a function of local conditions on the vertical axis. Local economic benefits generate positive utility, but must outweigh the disutility created by security concerns in order for a given individual to stay. Dotted lines demarcate the cut-points in wealth levels at which a given individual decides to "stay" rather than "leave" and vice versa.

The graph indicates that only individuals in the middle of the wealth distribution will stay, which is grounded in two assumptions. First, security conditions provide an incentive to leave across individual endowments. We show a linear decrease in the extent to which security worries generate disutility across wealth levels, consistent with research that links poverty to greater vulnerability to violent attack (Scacco, 2020). However, insecurity breeds

[4] In a separate working paper, we explore ways aside from relocation in which Southerners adapt to the changed circumstances in which they find themselves today, either in Sudan or as recent migrants in South Sudan. "Identity in Partition" (Beber et al. 2017*b*) offers evidence for adaptive behaviors such as changes in respondents' reported home language and self-described regional identity and discusses ways in which post-partition adaptation is constrained.

[5] For example, Eritrea was considerably poorer than Ethiopia when it gained independence in 1993, and East Timor was much poorer than Indonesia when it gained independence in 2002. The same pattern can be observed in Bangladesh's separation from India in 1947 and from Pakistan in 1971.

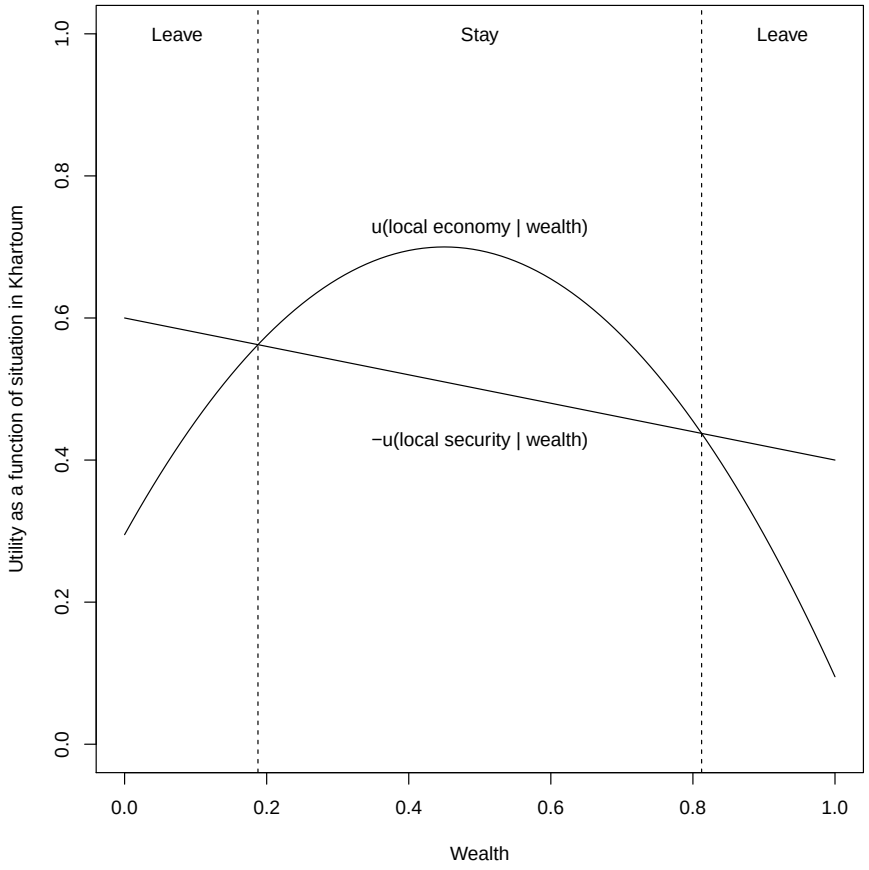

Figure 1: An illustration of the theoretical argument

some demand for relocation across the wealth spectrum.[6]

Second, we assume that the middle class derives the greatest amount of utility from participating in the local, relatively developed economy, so much so that its members resist migration. The poorest individuals have little access to economic opportunity in the first place, nor do they need to worry about liquidating any local economic assets. Wealthy individuals, on the other hand, are more likely to be enmeshed in profitable local economic activity, but they have three advantages compared to members of the middle class: First, they are more likely to possess non-local assets, such as foreign currency, deposits, and investments. The economic benefit that a wealthy individual derives from staying may be minimal if he or she can rely on payments from non-local revenue sources.

Second, relatively wealthy individuals can afford to relocate quickly, are more likely to have resources to bridge periods of unemployment, and are more likely to be able to access employment opportunities elsewhere. They are less likely to be daunted by the notion of forsaking local economic opportunities than middle class households, who must anticipate weeks, months, or even years without income. In the case of Sudan, well-to-do Southerners can move from capital to capital in a single day by taking a plane from Khartoum to Juba, while the more affordable mode of relocation to Juba involves a minimum of several weeks of travel on an upstream Nile barge from Kosti.[7]

Third, well-off households are relatively better equipped to extract assets that are bound up with the local economy. Both wealthy and ordinary middle class households may have local property or investments, but the former are likely able to extract their assets more quickly and more completely than the latter, with one reason being that wealthy households can afford to incur higher fixed transaction costs.

Overall, the middle class benefits the most from continued access to the local economy and wouldn't be able to relocate without significant economic burden. Middle class households also suffer from a poor security situation, but not enough to make it worthwhile to migrate.[8]

[6]Lozano-Gracia et al. (2010) find that individuals exposed to high levels of violence are not only more likely to relocate, but move to relatively more distant locations.

[7]In a detailed study of migration during India's partition, Kaur (2006) documents similar variation in the safety and speed of modes of transportation used by members of different social classes to cross the India-Pakistan border.

[8]McKenzie and Rapoport (2007) also report a non-linear relationship between wealth and the decision to migrate in the case of Mexican immigration to the United States. In this case, economic opportunities in the United States are particularly attractive to members of the middle class, who are most likely to migrate. Similarly, Massey, Goldring, and Durand (1994: 1492) find that early migrants from Mexican communities to the U.S. typically "came from the middle of the local hierarchy—not so poor that they could not afford the costs and risks of migration, but not so affluent that migration was unattractive." Our argument complements this observation: Southerners in the middle of the wealth distribution cannot in fact easily afford the costs associated with relocation, but are also not poor enough to make a continued stay in repressive conditions in Khartoum entirely unattractive. In both cases, migration out of Sudan and Mexican immigration to the United States, members of the middle class seek out economic opportunities that both

This has important potential consequences for underdeveloped destination countries, in this case South Sudan. If returnee households are mostly located on the lower and upper ends of the wealth spectrum, this could increase economic inequality in the new state, and could otherwise impair the new country's long-term economic prospects. Scholars have linked a robust middle class to long-run economic growth, peace and stability, and democratic consolidation (Esteban and Ray, 1999; Alesina and Rodrik, 1994; Easterly, 2001). Middle class households are least likely to relocate, but may well be the kind of migrants that South Sudan needs most urgently.

3 Research Context and Survey Design

The data for this paper comes from a panel survey of a representative sample of 1380 individuals, including 204 Southerners, from five administrative units (AUs) in greater Khartoum. We conducted an initial round of interviews in November and December 2010 and a follow-up in October through December of 2011. Greater Khartoum consists of the 23 out of 36 AUs in Khartoum State that contain any urban residential population according to Sudan's 2008 census, and it encompasses the three historic cities of Bahri, Omdurman, and Khartoum at the confluence of the Nile. We oversampled Southerners, Darfurians, and Nuba, as shown in Table 1.[9]

Khartoum is popularly described as a microcosm of Sudan and was an attractive survey site to sample respondents from a broad cross-section of Sudanese society.[10] We also selected Khartoum as project site because the vast majority of Sudanese displaced by the wars in the South and Darfur went to Khartoum and its environs. In fact, observers commonly believed that some 1.5 million out of an estimated 4.8 million Southerners eligible to vote in the 2011 referendum lived in greater Khartoum.[11] This was in all likelihood a significant

poorer and wealthier households have incentives to forgo. Van Hear (2004) discusses related observations in the contexts of Sri Lanka and Somalia.

[9]Shares do not add to 1 because of respondents and residents from elsewhere, including migrant workers from Nigeria. Respondents self-identified their region of origin. Darfur is located in Sudan's far west, and Kordofan extends over the country's central plains between Darfur and Khartoum. The Nuba Mountains are located in the southeastern corner of South Kordofan state, along the border with South Sudan. In contrast to Baggara tribes such as the Jawamaa and Misseriyya that populate much of Kordofan, both Darfurian and Nuba groups have a history of contentious relations with Sudan's central government. Violent conflict has marred Darfur since 2003 and Nuba groups supported and fought alongside Southern rebels during the civil war with the South.

[10]See for example Gwen Thompkins, "Khartoum, Sudan's Cosmopolitan Epicenter" (http://www.npr.org/templates/story/story.php?storyId=92621314).

[11]Sudan Tribune, "Rumbek Students Demand Immediate Return of Southerners to South Sudan" (October 16, 2010); Rebecca Hamilton, "This Doesn't Look Like Unity," *Slate* (October 12, 2010); Neil MacFarquhar, "Obama Presses for Peace in Sudan's Likely Partition," *The New York Times* (September 25, 2010); Agence France Presse, "South Sudanese Return Home Before Census" (March 17, 2008). Others located 1.5 million Southerners in the North more generally: Associated Press, "UN: 2.8m at Risk If Violence Breaks Out in Sudan"(December 22, 2010); Jeffrey Fleishman, "Southern Sudanese Head Home Despite Risk of War," *Los*

Figure 2: Sudan

	Sample size	Share of sample	Estimated population share	Estimated population (in million)
North-Central	491	36%	66%	2.76
Darfur	191	14%	10%	.43
Kordofan	141	10%	10%	.43
Nuba Mountains	258	19%	8%	.33
South	204	15%	5%	.22

Table 1: Sample and population shares by region of origin

overestimation. We estimate that no more than a quarter of a million Southerners resided in greater Khartoum at the end of 2010, as shown in Table 1, which matches a report by the Carter Center that about 116,000 Southerners had registered in North Sudan to vote in the referendum.[12] Still, Khartoum probably hosts the largest concentration of displaced people in Sudan.[13]

Initial sampling for round I proceeded as follows. We first randomly sampled a set of five administrative units, which we stratified by dominant region of origin. For each AU, we obtained an estimate of which group dominates from 24 individual assessments made by locally knowledgeable research assistants. In a given AU, we considered a group dominant if (a) it has a plurality in a given AU, and (b) constitutes at least one-third of the population in that AU. If no group makes up at least one-third of the population, the AU was coded as mixed. AUs were grouped in five strata (North-Central, Darfur, Nuba, South, and mixed), and we selected one AU from each stratum, with selection probabilities proportional to AU population shares. Figure 3 shows the location of these five administrative units by overlaying the relevant census maps over a satellite image.[14]

Second, we sampled 62 popular administrative units (PAUs), which we stratified by wealth and dominant region of origin within each AU. We oversampled PAUs where Darfurians, Nuba, or Southerners dominate, and otherwise allocated sampling units in proportion to stratum size. Figure 4 highlights sampled PAUs in Haj Yousif, an administrative unit in

Angeles Times (December 29, 2010).

[12]Jimmy Carter, "Trip Report by Former U.S. President Jimmy Carter to Sudan, Jan. 5-16," *All Africa* (January 20, 2011). We can only make inferences about areas under PAU administration, which excludes certain refugee camps under the supervision of the Humanitarian Affairs Commission (HAC). On the other hand, two of our AUs, Hai Yousif and Al Nasr, are believed to have among the highest concentrations of Southerners anywhere in Khartoum. Percentages shown in Table 1 do not add up to 100 because of a small number of respondents reporting no or some other region of origin.

[13]A complementary representative sample of residents of Kosti in the border state of White Nile was lost when state security failed to accept permits issued by the governor and other local authorities on the first scheduled day of survey administration.

[14]Census maps did not include coordinates and had to be approximately georeferenced using satellite imagery.

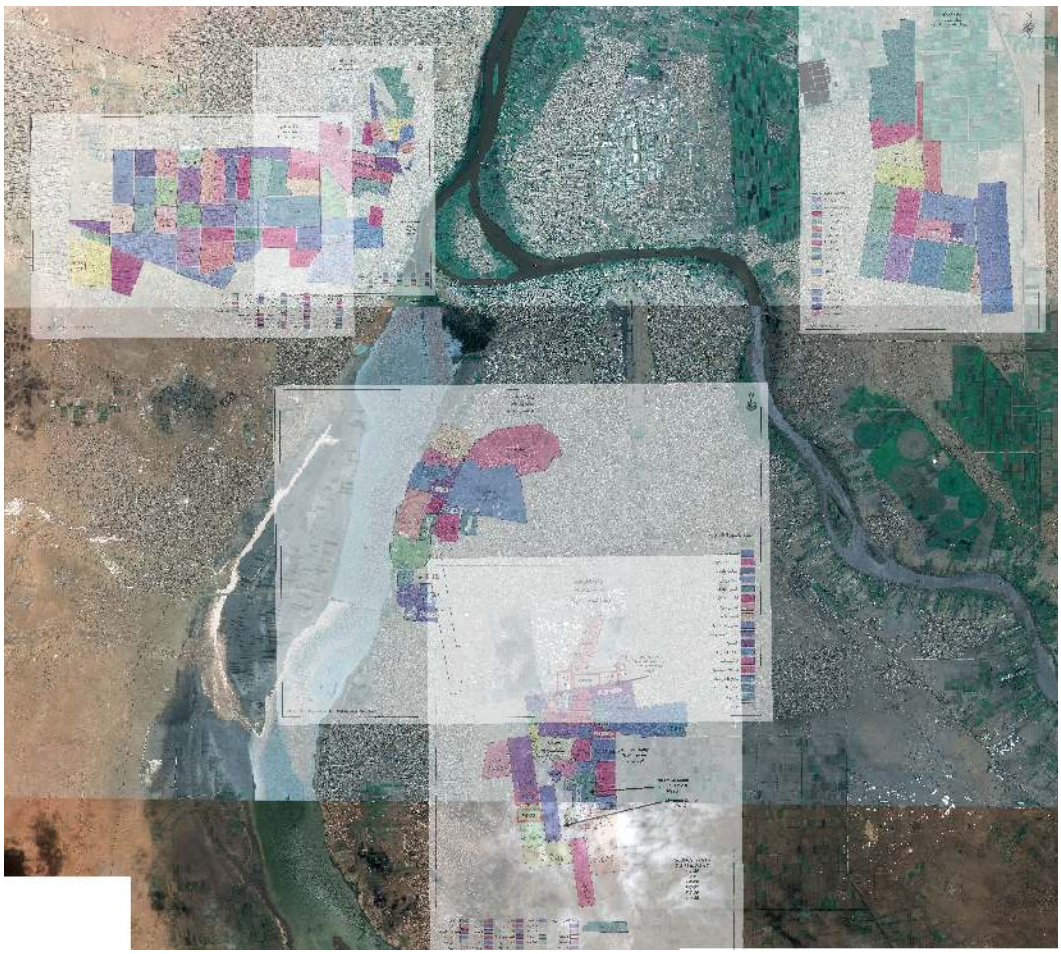

Figure 3: Location of administrative units, with overlaid census maps

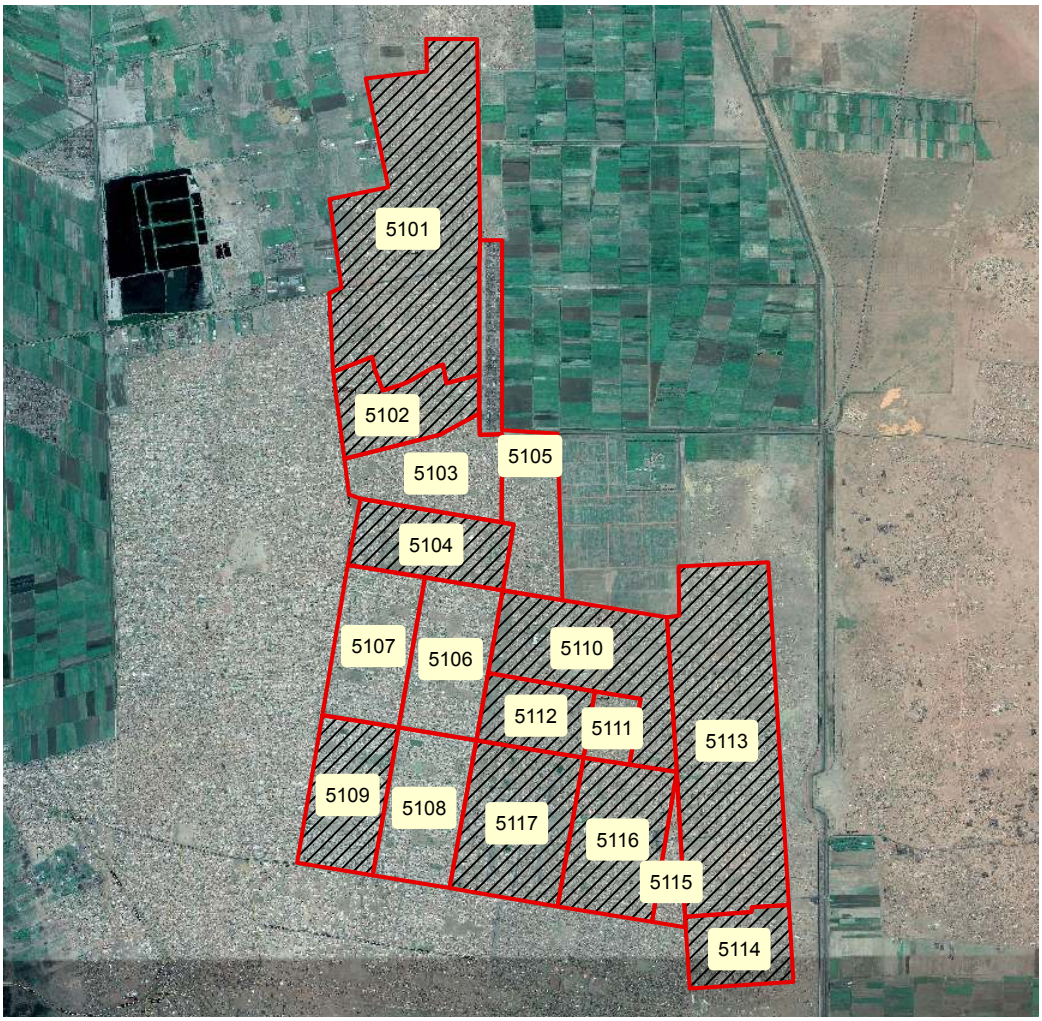

Figure 4: Composition of administrative unit

which Southerners dominate.

Third, we randomly sampled households within PAUs by drawing target coordinates that were then found by GPS-equipped enumerators in the field. Figure 5 shows an example of coordinates drawn in Al Shigla Central in Haj Yousif.[15]

Fourth, enumerators asked the head of each sampled household to construct a roster of adult household members, and individual respondents were sampled from this roster. Enumerators stressed the project's lack of any political affiliation and the random selection of respondents, and provided details about measures taken to protect respondents from any kind of retaliation (described below). Most respondents (87%) agreed to participate.

[15]Sampling points beginning with S had to be visited by enumerators. Replacement points begin with R were visited if a sampled household declined participation. Detailed sampling procedures are available upon request.

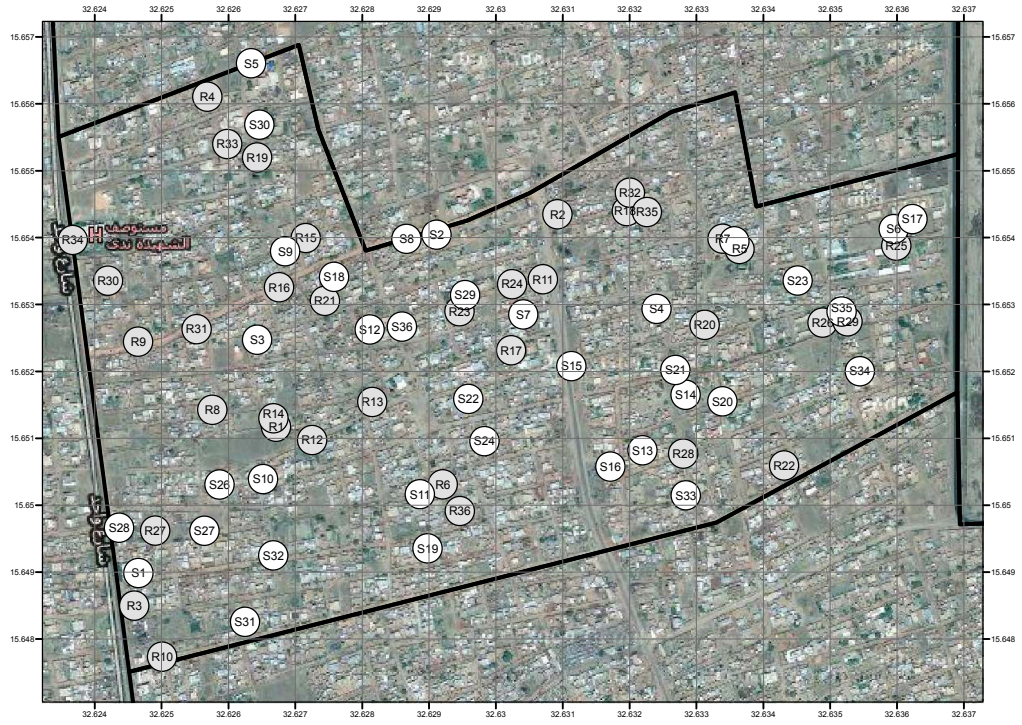

Figure 5: Sampling within a popular administrative unit

The survey consisted of more than 150 questions on political opinion and participation, social networks, interaction with government officials, exposure to media, war experiences, and individual and household background characteristics. We collected detailed contact information (local address, GPS coordinates, information on ancestral home, contact details for several non-household relations) in order to be able to locate respondents. About 84% of those who agreed to participate in the survey shared their contact information. They were contacted for a second interview in the fall of 2011.

Enumerators frequently reported that respondents were initially apprehensive. Surveys by most international organizations, such as recent intention-to-migrate surveys by the UNHCR and the International Organization for Migration (IOM), require supervision by Sudan's Humanitarian Aid Commission (HAC), which generally takes the form of minders who accompany enumerators. This was an important reason why we completed all survey work in-house, with our own staff, who obtained any necessary permissions from local, non-HAC authorities.[16]

We took a series of additional measures to protect respondents (and enumerators), who

[16]Our staff obtained permits from PAU, AU, and locality authorities. Localities are groupings of AUs within states.

could be at risk of being suspected that they participated in violent action in the past or who could hold political opinions that could make them a target of violent groups or Sudanese state authorities, and enumerators were instructed to provide a detailed description of these measures to respondents.[17] They aim primarily at making it impossible for anyone in Sudan, including enumerators and investigators, to link particular sets of responses to specific individuals, generic respondent profiles, or even other sets of responses from the same subject.

Three steps are particularly important. First, our staff was not allowed to observe a respondent's answers to potentially sensitive questions while administering the survey, but the relevant response sheet was completed by the subject him- or herself. While an enumerator read each question and the available response options (because many subjects do not know how to read), the subject marked the appropriate box in private. Upon completion, the respondent placed the response sheet in an envelope among other (possibly decoy) response sheets.

Second, any potentially sensitive responses and contact information were physically separated from each other and from a respondent's other answers. Response sets can be linked by matching separate identifiers generated for each respondent, but the required key makes it impossible for someone who obtains survey sheets to link sensitive information to specific individuals or broad participant profiles.

Third, we restricted circulation of the document containing potentially sensitive questions. Even if someone was able to obtain survey responses to sensitive questions, these responses would consist of checked boxes and would be meaningless without the relevant survey instrument. By controlling the distribution of question sheets, we minimize the possibility of unauthorized access to sensitive information.

Follow-up interviews were conducted in late 2011, and we were able to complete a second-round survey with approximately 80% of those respondents who shared contact information with us. The 204 Southerners initially interviewed in round I of the survey in 2010 were distributed as follows at the time of round II in October–December 2011:[18]

- 80 remained in Khartoum.
- 66 had left Khartoum. Of these, 53 had reached South Sudan, 9 were located elsewhere in North Sudan (nearly all on their way to South Sudan), and 4 had moved to a different country.

[17] We obtained IRB approval or an institutional equivalent from New York University, the University of Oxford, and the University of Khartoum. The University of Khartoum provided guidance under the aegis of the relevant dean and an Advisory Committee of faculty members established for this project.

[18] In 50 cases, our team was unable to complete an interview with the subject but obtained information about his or her post-partition location (either from the respondent him- or herself or from neighbors, relatives, co-workers, employers, or tribal leaders in Khartoum or in South Sudan).

	Count	Weighted proportion
Southerners remaining in Khartoum	80	56%
Southerners who have left Khartoum	66	44%

Table 2: Sample used to assess Southerners' relocation decisions

- 51 declined to share contact information with us and therefore could not be reached for round II.
- 7 shared contact information during round I but could not be located by enumerators during round II.

This leaves us with a sample of 146 Southerners for the analysis of migration decisions below. As Table 2 makes clear, this sample contains important variation to explain, with roughly 56% of respondents choosing to remain in Khartoum and roughly 44% choosing to migrate. For this analysis, we relate respondent attributes reported in round I (2010) with actual migration decisions taken by Southern respondents that the survey team learned about during round II (2011).

4 Relocation after Sudan's Partition

We first turn to the question of who has left and what this means for population shares in Khartoum. Table 3 shows our initial 2010 estimates of the size of key population groups, just as in Table 1; re-estimated population shares from the fall of 2011; and estimates of the size of different groups in absolute terms.[19]

The table suggests a slight uptick in the number of Darfuris and Kordofanis, and a small decline in the share of Nubas. But most crucially, our data picks up the departure of at least half and more probably about two-thirds of the Southern population in Khartoum and the surrounding metropolitan area, overwhelmingly due to migration to newly independent South Sudan. In absolute terms, our best guess is that the number of South Sudanese declined from about 210,000 to roughly 90,000 between the months leading up to the referendum and the months following separation.

Table 4 inspects further to what extent respondents that remained in Khartoum plan on leaving the metropolitan area. Aside from Southerners, Nubas were most likely to say that they have migration plans, with a total of about 22% interested in leaving either within a year or further in the future. The Nuba Mountains have been a flashpoint of violence in the months since separation, and the Sudanese government's ruthless campaign against SPLA

[19] Re-estimated figures are adjusted for out-migration flows, but not for any migration into Khartoum that may have occurred between the end of 2010 and the fall of 2011.

	Pre-partition estimate of population share	Post-partition estimate of population share	Post-partition population (in million)
North-Central	61%	64%	2.45
Darfur	10%	9%	.33
Kordofan	10%	8%	.33
Nuba Mountains	7%	8%	.30
South	5%	2%	.09

Table 3: Re-estimated population shares by region of origin

Do you intend to leave Khartoum?	Yes, within the next year	Yes, but not within the next year	No
North-Central	8%	11%	82%
Darfur	1%	13%	86%
Kordofan	4%	10%	86%
Nuba Mountains	7%	6%	87%
South	17%	61%	21%

Table 4: Migration intentions among those remaining in Khartoum

elements among the Nuba may explain some of the sentiment in favor of migration away from Khartoum. South Sudan does not appear to be an attractive alternative to Nubas, either: Only 3% of Nubas report that they intend to migrate to the South.

Even for Nubas, however, Khartoum remains a place few want to leave behind. Only Southerners indicated in large numbers that they intend to depart and move (usually) to South Sudan: 25% within the next year, and another 50% at some other time in the future. Although these numbers are much greater than for any other subgroup, it would seem reasonable to expect these numbers to be even higher given the extraordinary restrictions the Sudanese government has imposed on Southerners in the North in the aftermath of the referendum vote. All Southern government employees were fired, university enrollment has largely been suspended for Southerners, the government issued a new currency at the time of partition and instructed banks not to exchange Southerners' Sudanese pounds, and—most importantly—Southerners' nationality has been revoked and they are unable to obtain the national ID card that has technically been required for legal residence since 2012.

Our Southern interview subjects provided vivid descriptions of hardship in a changed Khartoum: One man was told that doctors "would not treat us in a hospital if we were sick after separation."[20] Another described the informal process by which those who "looked

[20]Interviewee no. 612. All quotes are from additional in-depth interviews conducted with survey respondents after completing the second round of the panel survey.

Southern" could lose their papers: "Even if you had nationality papers, the authorities would take them from you. They would even stop the bus or the car you were riding in and say, 'everyone show your papers.' Then they would take the papers from the Southerners and rip them up and tell you to go to your new country."[21]

These draconian measures had not been announced at the time of the referendum, when Bashir's government was making the case for unity and attempting to woo Southern voters, but they had been put in place prior to the second round of our survey. Yet despite the government-sanctioned hostility directed against Southerners, about a quarter of the remaining Southerners (20,000 people in absolute terms) expressed to enumerators during the second round of our panel survey that they had no intention of leaving Khartoum at any point in the future. Thus, there remains important variation to explain in terms of respondents' decision to migrate. We explore this variation below.

5 Security, Wealth, and Migration

We suggest that the decision to migrate is the result of a careful weighing of the advantages of being in the relatively more developed North (in terms of job and investment opportunities as well as access to basic infrastructure such as water, electricity, and health services) versus the disadvantage of risking harm as a result of punitive actions taken by either the government in Khartoum or by ordinary citizens against Southerners (in terms of bodily or psychological injury, the loss of property, or the loss of social capital). While the economic situation has deteriorated in the North as a direct consequence of partition, which brought with it the loss of between two-thirds and three-quarters of Sudan's oil reserves to South Sudan, the "Hamdi Triangle" within which Khartoum is located is dramatically more developed than any region or city in the South.[22]

We present empirical evidence with respect to both sides of this trade-off below. First, we observe that the security situation faced by Southerners in Khartoum is indeed precarious. By late 2011, fear of government security services and state-sponsored militias roaming through Khartoum had permeated the South Sudanese community. One interview respondent told us that his family was "always afraid of house inspections, sometimes at night, from the general order police."[23] Another also talked about "the militia in Khar-

[21] Interviewee no. 141.

[22] The UNDP estimated in late 2010 that about 90% of the population in the South were living on less than $1 per day (http://www.sd.undp.org/mdg_sudan.htm). Only about 15% of adults knew how to read and write, and a 15-year-old girl was more likely to die in childbirth than complete school (http://www.unsudanig.org/docs/scary statistics - Southern Sudan Nov. 2010.doc). Paved roads are largely limited to the capital Juba, which means that vast swaths of this country roughly the size of France become impassable during the rainy season, when the Sudd turns into one of the world's largest swamps.

[23] Interviewee no. 841.

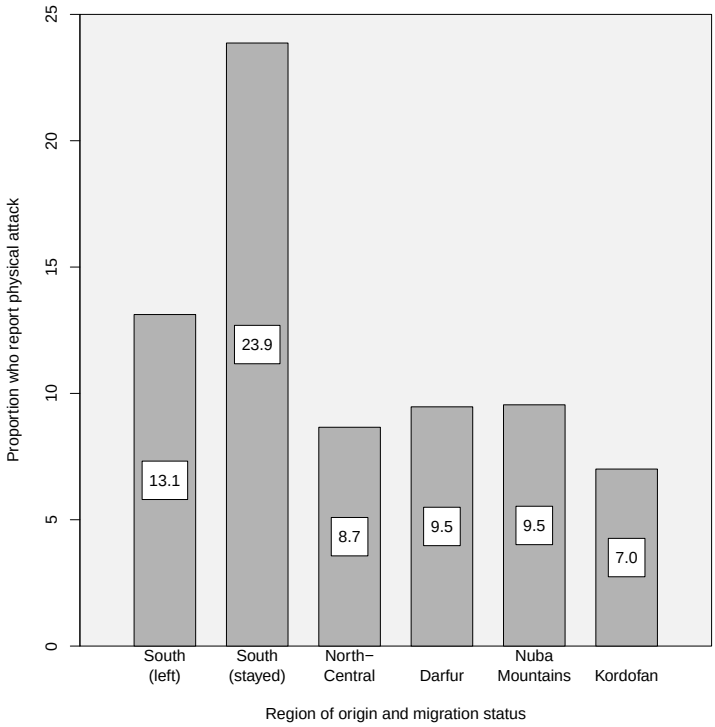

Figure 6: Physical attacks by region of origin

toum, supported by the Government of Sudan, disturbing people in Khartoum, forcing you to surrender your house, taking all the material in your house."[24] "They would come to your house with guns and ask, 'Why are you still here?' ... You cannot argue with them. You cannot say anything."[25]

Survey responses to a question about physical attacks directed against either the respondent or an immediate family member during the month preceding the follow-up interview paint a similarly stark picture of South Sudanese hold-outs under siege. Figure 6 shows that Southerners who remain in Khartoum are far and above the subgroup most vulnerable to physical attack in our sample. We estimate that more than a quarter of these Southerners were either themselves or had an immediate family member who was physically attacked in a one-month period in late 2011. Among Southerners who have left Khartoum, roughly 11% report a physical attack. For other subgroups, the figure ranges from 6.9% (Kordofanis) to 9.5% (Nuba).

Figure 7 provides evidence that the decision to migrate is responsive to the anticipated effects of partition on personal security. Round I respondents were asked a question about

[24]Interviewee no. 657.
[25]Interviewee no. 141.

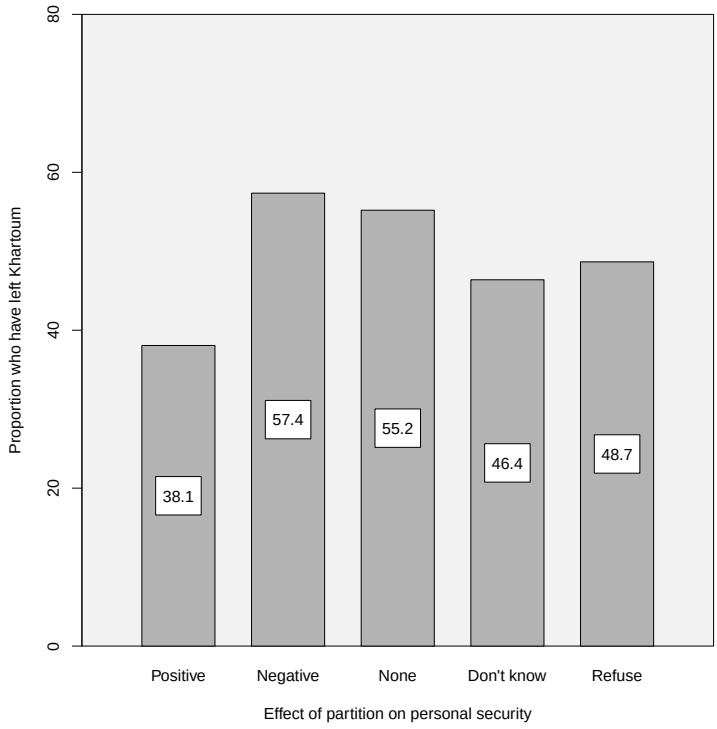

Figure 7: Relocation and anticipated effect of partition on personal security

whether they felt the separation of South Sudan would have a positive effect, a negative effect, or no effect on their personal security. Figure 7 shows proportions that indicate that those who thought partition would have a positive effect on their security were more likely to stay in Khartoum, while those who thought separation would have a negative effect, or no effect, were more likely to leave.[26]

Southerners in Khartoum are in a comparatively precarious security situation, but this does not imply that migration to the South is an obviously attractive exit option. Instead, we also need to consider the economic benefits associated with staying in Khartoum, in particular for the middle of the wealth distribution. Compared to the poorest Southerners, the opportunity costs of relocation are substantial for middle class households, who may not be able to replace well-paying jobs in Khartoum, a bustling metropolis, with similarly attractive jobs in the underdeveloped South. This problem is not as acute for individuals at the very top of the wealth distribution, who may have relatively more diverse sources of funds, may be able to liquidate and extract their assets from Sudan more effectively, and

[26] As with all questions on the survey, respondents were also given the option to reply "I don't know" or "I do not want to answer this question." For particularly sensitive questions about political opinions or security-related questions, these options were read aloud to respondents, to make clear that they were not obligated to answer.

may have investments internationally that will not need to be extracted from Sudan at all.

Wealthy individuals are also relatively better equipped to overcome the significant challenges of temporary unemployment and physical relocation to Juba, the most attractive destination for most Southerners living in Khartoum but located far beyond the refugee camps a short distance across the border in cities such as Renk and Malakal. The expectation of weeks or months of harrowing travel might not deter poor Southerners with little to lose, but can compel middle class individuals to remain in Khartoum.

In our interviews, many subjects described the difficulties of the relocation process as a major barrier to migration. One woman described how her family's property was stuck in Kosti, just north of the border between Sudan and South Sudan, for 10 months: "My father-in-law stayed there because of the property. It was very hard for him. The rain is hard. There is no good place to stay, no clean food, no clean water. People just go to the river and drink directly ... Even I was there with my children for one week. And they got sick. So I took them back to Khartoum. I thought, I can't leave them there."[27]

Another interviewee reported that "it took us 29 days to travel from Kosti to Juba. It was very difficult. We began our journey from the port in Kosti up to Malakal and arrived in Malakal safely. After leaving Malakal, our barge broke. Unfortunately, the deck on the barge where we were riding, and where our things were, became untied from the barge. We began to move without control for many hours. It was more than 9 hours before soldiers rescued us from what we thought would be our death, and tied our barge to the riverbank. We stayed there for several days. During that time, before we were able to get on another barge, it was terrible. We fished in the river just to feed ourselves. We also saw two people fall off a barge and drown. We thought we would starve during that journey."[28]

Figure 8 shows the geographic distribution of Southern respondents at the time of our post-partition follow-up, with clusters in Khartoum, Kosti, Renk, Malakal, Wau, and—most distantly—Juba. Even if returnees manage to get to Juba or other urban centers in South Sudan, it is clear that the security and freedoms they have gained and that were not available to them in the North come at a steep price in terms of their economic livelihoods.[29] One respondent remarked that "at home in Khartoum, we had power and TV. We had everything. Here, we don't have anything."[30] Another interviewee complained that "the house in Khartoum was big and everyone had their own room. Now we have to share. The electricity in Khartoum was daily. Here, sometimes it works for just half an hour. Water was also good in Khartoum. Here, you have to go buy a tank."[31] To the extent

[27]Interviewee no. 141.

[28]Interviewee no. 850.

[29]Most returnees from Khartoum vastly prefer to settle in an urban area in South Sudan, preferably Juba, which is by far the most developed place in the country.

[30]Interviewee no. 850.

[31]Interviewee no. 448.

Figure 8: Respondent locations in Round II

		Proportion
Southerners in ...	bottom quintile	32.5%
	second quintile	31.5%
	middle quintile	14.7%
	fourth quintile	11.7%
	top quintile	9.6%

Table 5: Asset index

that consumer goods are available, they are often unaffordable for all but the wealthiest returnees: "Life in Khartoum is very cheap. Here in Juba it is very expensive. All the commodities are very expensive because they are all brought in from outside the capital. Sometimes we don't have enough money and the children will stay all day without eating."[32] The anticipation of such economic hardship provides a powerful countervailing incentive for middle class individuals to try to stay in Khartoum.

We now turn to a quantitative analysis of the relationship between wealth and migration using our panel survey data. We first use an objective indicator of wealth, measured by an asset index of 13 items (including at least one refrigerator, radio, television, mobile phone, non-mobile phone, computer, electricity, Internet access, satellite dish, mattress, motorcycle or scooter, and car or truck).[33] The asset index is used to divide the sample into wealth quintiles. Not surprisingly, given how many Southern households arrived in Khartoum as refugees from the war-torn South and the economic discrimination they have faced since, Southern respondents cluster at the bottom of the overall wealth distribution, as indicated by Table 5.

FIX: Footnote: Asset index can be constructed from factor analysis for all respondents or Southerners only Correlation between indexes is .997, and they produce similar (but not identical) results Asset measure based on only Southerners carries more statistical power, but measure constructed based on all respondents perhaps more consistent with interpretation of middle tertile as "middle class"

Figure 9 illustrates that the poorest and the wealthiest Southerners were the most likely to have chosen to migrate. This finding is consistent with the story described above: the opportunity costs for the poorest South Sudanese in Khartoum may have been low enough to render the poverty they would surely face upon arriving in South Sudan acceptable, while the wealthiest South Sudanese possessed sufficient resources to move their belongings and family members without overwhelming hardship.

Table 6 shows that this relationship persists when we correlate relocation decisions with

[32] Interviewee no. 119.

[33] The asset index is the first factor from a principal factor analysis. This yields, in effect, a continuous, mean-centered measure of wealth in units of standard deviations.

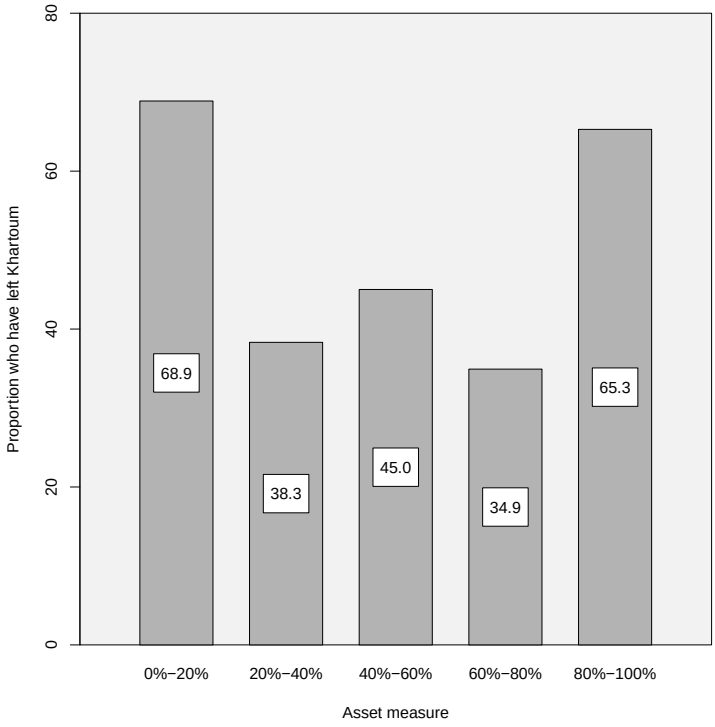

Figure 9: Relocation status and assets

Out-migration	(1)	(2)	(3)
Assets (second quintile)	-.235	-.218	-.229
	(.108) **	(.106) **	(.097) **
Assets (middle quintile)	-.267	-.290	-.228
	(.145) *	(.134) **	(.125) *
Assets (fourth quintile)	-.421	-.447	-.399
	(.161) **	(.155) ***	(.146) ***
Assets (top quintile)	-.070	-.070	-.092
	(.172)	(.185)	(.158)
Observations	143	143	143
Controls	Gender	Gender	Gender
	Age	Age	Age
	Working	Working	Working
	Education (log)	Education (log)	Education (log)
	Father's educ. (log)	Father's educ. (log)	Father's educ. (log)
	Household size (log)	Household size (log)	Household size (log)
		Annual visits to origin	Annual visits to origin
		Born in South	Born in South
		War (South)	War (South)
			Risk-acceptant
			Muslim
			English

Marginal effects from a probit model, with 3.8%–4.3% of cells multiply imputed.
*** significant at the 99% level, ** 95% level, * 90% level.

Table 6: Assets and Southern out-migration from Khartoum

objective wealth in a multivariate regression context, which allows us to control for the potentially confounding effects of a variety of other covariates.[34] The outcomes of interest in this table are respondents' actual migration choices, and we report four separate marginal effects for the respondent asset index, one for each quintile (with the bottom quintile of the asset distribution omitted).

Overall marginal effects are negative and significant for mid-range quintiles, but are insignificant for the top quintile of the asset distribution. Since the bottom quintile is the omitted reference category in these regressions, respondents who are either best- or worst-off (measured in terms of their household's ownership of items such as a refrigerator, a television, a computer, and Internet access) are relatively more likely to decide to migrate.

Next we check that results are robust to an alternative measure of the independent variables of interest, and we replace the asset-based indicators with a measure of respondents' subjective perception of their wealth relative to their neighbors. Most South Sudanese surveyed identified themselves as relatively poor: Among Southerners interviewed in round I,

[34]For the regressions, we use multiple imputations to minimize the effect of missingness due to item-specific non-response. In general, within-survey non-response was low: We impute about 4% of the relevant cells. Education is measured in log-years. War (South) indicates if a respondent fought in the civil war with the South. English indicates if a respondent can speak basic English. One star indicates statistical significance at the 90% level, two stars indicates significance at the 95% level, and three stars at the 99% level.

Out-migration	(1)	(2)	(3)
Asset index at 5th pctl.	-.249	-.258	-.240
	(.117) **	(.116) **	(.113) **
Asset index at 25th pctl.	-.151	-.163	-.152
	(.102)	(.094) *	(.088) *
Asset index at median	-.055	-.065	-.062
	(.075)	(.070)	(.064)
Asset index at 75th pctl.	.032	.026	.022
	(.078)	(.084)	(.074)
Asset index at 95th pctl.	.248	.251	.231
	(.134) *	(.152)	(.146)
Observations	143	143	143
Controls	Gender	Gender	Gender
	Age	Age	Age
	Working	Working	Working
	Education (log)	Education (log)	Education (log)
	Father's educ. (log)	Father's educ. (log)	Father's educ. (log)
	Household size (log)	Household size (log)	Household size (log)
		Annual visits to origin	Annual visits to origin
		Born in South	Born in South
		War (South)	War (South)
			Risk-acceptant
			Muslim
			English

Marginal effects from a probit model, with 3.8%–4.3% of cells multiply imputed.
Model includes continuous, standardized asset index and its square.
*** significant at the 99% level, ** 95% level, * 90% level.

Table 7: Migration and wealth (continuous)

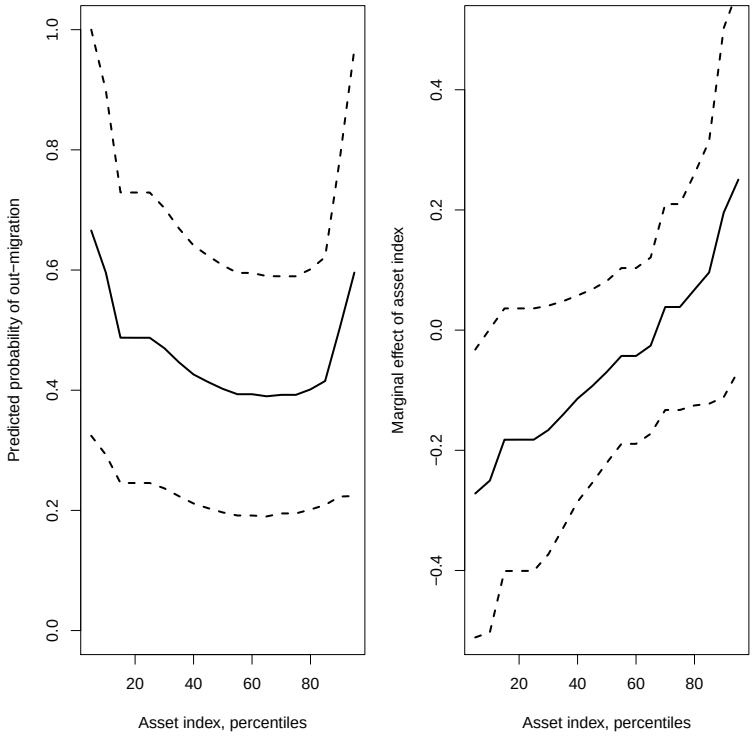

Figure 10: Migration and wealth, predicted values and marginal effects

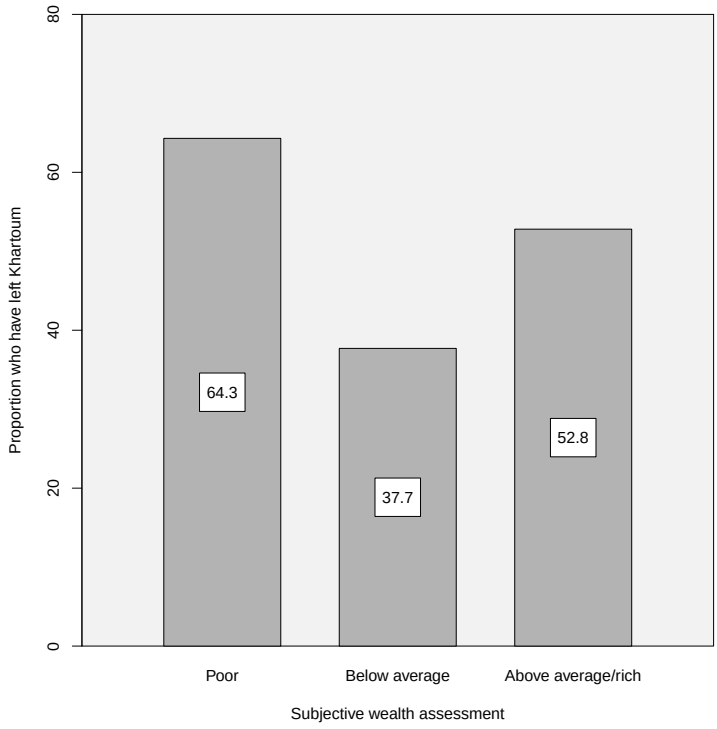

Figure 11: Relocation status and subjective wealth

40.1% described themselves as "poor" relative to their neighbors, 37.5 described themselves as possessing "below average" wealth, 19.3% as "above average," and 3% as "rich." Since only 6 respondents self-identified as rich, we collapse the two upper categories.

Figure 11 suggests that subjectively poor respondents were the most likely to have migrated away from Khartoum (with 64.3% migrating), those describing themselves as below average were the least likely to leave Khartoum (37.7%), and those who viewed themselves as above average or rich were about evenly split in their migration decision (52.8% migrating). The same pattern is evident in Table 8, with subjective poverty as the omitted reference category. Respondents whose subjective assessment of their relative wealth puts them in the middle of the distribution are most likely to resist migration.

Not only do the findings consistently indicate that middle-income respondents are particularly unlikely to relocate, there are also few other respondent attributes aside from being a Muslim that appear to have a comparable impact on migration decisions. Economic migration is often led by married men in their prime, which is a result of traditional economic roles in sender countries as well as gendered earning potentials in destination countries, but this is not the case here.[35] Nor are those who are more risk-acceptant, those who were born

[35]For a critical discussion of gender and migration, see Pedraza (1991).

Out-migration	(1)	(2)	(3)
Subjective wealth (middle)	-.261	-.280	-.239
	(.100) **	(.101) ***	(.091) **
Subjective wealth (high)	-.098	-.096	-.121
	(.141)	(.140)	(.124)
Observations	143	143	143
Controls	Gender	Gender	Gender
	Age	Age	Age
	Working	Working	Working
	Education (log)	Education (log)	Education (log)
	Father's educ. (log)	Father's educ. (log)	Father's educ. (log)
	Household size (log)	Household size (log)	Household size (log)
		Annual visits to origin	Annual visits to origin
		Born in South	Born in South
		War (South)	War (South)
			Risk-acceptant
			Muslim
			English

Marginal effects from a probit model, with 3.8%–4.3% of cells multiply imputed.
*** significant at the 99% level, ** 95% level, * 90% level.

Table 8: Subjective wealth and Southern out-migration from Khartoum

in South Sudan, and those who lived in Khartoum only relatively briefly any more likely to have migrated than others:

- We find almost no difference in age between Southern respondents who chose to leave Khartoum, and those who stayed behind. The average age of those who remained is 29.5 years versus 28.8 years for those who left Khartoum.

- Our survey contains a question intended to measure a person's willingness to accept risk. In a hypothetical scenario, the respondent is asked whether he or she would prefer to accept 10 chickens or play a game. The game involves guessing the outcome of a coin flip. Those who guess the outcome correctly receive 20 chickens and those who guess incorrectly receive none. Respondents are coded as risk acceptant if they prefer to play the game. According to this measure, risk-acceptance does not predict the decision to migrate. 51.4% of risk-acceptant respondents had migrated away from Khartoum by 2011, compared with 49.8% of risk-averse respondents, a statistically insignificant difference.

- Among Southerners in our sample, 41.5% were born in South Sudan, while 58.5% were born in North Sudan. A majority of those born in the North were born in Khartoum. Respondents who were born in South Sudan appear to be slightly more likely to have migrated away from Khartoum by December 2011 than respondents born in the North (52.9% versus 49.3%), but this difference is not significant at conventional levels.

	Min	Max	Mean if attrited	Mean if not attrited	Diff.	Std. Err.	P-value	Obs.
Asset index	-2	1.55	-.46	-.40	-.06	.13	.64	197
Subjective wealth	1	4	1.76	1.89	-.12	.14	.39	192
Female	0	1	.60	.59	.01	.08	.89	203
Age	18	75	28.96	29.89	-.93	1.69	.58	197
Working	0	1	.22	.24	-.02	.06	.75	198
Education (log)	0	2.77	1.80	2.03	-.23	.14	.10	201
Father's educ. (log)	0	2.77	1.19	1.32	-.13	.20	.53	176
Household size (log)	0	2.83	2.03	1.94	.09	.07	.25	200
Annual visits to origin (log)	0	3.43	.23	.27	-.04	.07	.55	203
Born in South	0	1	.48	.39	.10	.08	.21	205
War (South)	0	1	.83	.85	-.02	.06	.77	191
Risk-acceptant	0	1	.28	.46	-.18	.08	.02	184
Muslim	0	1	.17	.23	-.06	.06	.31	205
English	0	1	.44	.54	-.11	.08	.18	202

Table 9: Little imbalance due to attrition

- The average number of years lived in Khartoum among Southerners in our sample was about 19 years. The average length of residence in Khartoum is roughly equal among those who migrated (18.8 years) and those who remained in Khartoum (19.4 years).

To some extent these results reflect the fact that households relocate as a unit, which renders respondent-specific characteristics (a) less predictive of actual migration than they are of that particular individual's preference for migrating (indicated by an intention to migrate in round I, which does vary substantially across these attributes), and (b) less predictive than household characteristics such as an asset-based wealth measure.

One could object that some of these respondent attributes might spur attrition from our initial sample, which could interfere with our inferences about the relationships between these and other characteristics such as wealth on the one hand and migration on the other. Table 9 shows that there is little reason to be concerned. The profiles of attrited and non-attrited respondents are remarkably similar. The only significant difference that we observe is that attrited respondents are significantly less risk-acceptant. Since our team located 94% of the Southern first-round respondents who provided any kind of contact information, the vast majority of attrition is due to first-round respondents wanting to remain anonymous and unfindable. Although this set of subjects is similar to retained respondents in almost all respects, they are unsurprisingly relatively more risk-averse.

In order to rule out that the curvilinear relationship between wealth and migration is due to the attrition of risk-averse subjects, we repeat the analyis from Tables 6 and 8 for retained risk-averse subjects only. The results are very similar, despite the smaller sample size, which suggests that risk aversion and attrition due to risk aversion are not confounding the estimates for our measures of wealth.

Out-migration	(1)	(2)	(3)
Assets (second quintile)	-.275	-.227	-.221
	(.097) ***	(.089) **	(.097) **
Assets (middle quintile)	-.261	-.278	-.169
	(.127) **	(.112) **	(.125)
Assets (fourth quintile)	-.504	-.553	-.431
	(.157) ***	(.180) ***	(.154) ***
Assets (top quintile)	-.164	-.221	-.122
	(.205)	(.199)	(.166)
Observations	72	72	72
Controls	Gender	Gender	Gender
	Age	Age	Age
	Working	Working	Working
	Education (log)	Education (log)	Education (log)
	Father's educ. (log)	Father's educ. (log)	Father's educ. (log)
	Household size (log)	Household size (log)	Household size (log)
		Annual visits to origin	Annual visits to origin
		Born in South	Born in South
		War (South)	War (South)
			Muslim
			English
Marginal effects from a probit model, with 4.7% of cells multiply imputed.			
*** significant at the 99% level, ** 95% level, * 90% level.			

Table 10: Assets and migration, risk-averse respondents only

Out-migration	(1)	(2)	(3)
Asset index at 5th pctl.	-.354	-.294	-.317
	(.138) **	(.130) **	(.148) **
Asset index at 25th pctl.	-.265	-.241	-.209
	(.115) **	(.114) **	(.096) **
Asset index at median	-.144	-.159	-.108
	(.106)	(.101)	(.071)
Asset index at 75th pctl.	.073	.000	.063
	(.117)	(.122)	(.088)
Asset index at 95th pctl.	.274	.150	.230
	(.173)	(.197)	(.164)
Observations	72	72	72
Controls	Gender	Gender	Gender
	Age	Age	Age
	Working	Working	Working
	Education (log)	Education (log)	Education (log)
	Father's educ. (log)	Father's educ. (log)	Father's educ. (log)
	Household size (log)	Household size (log)	Household size (log)
		Annual visits to origin	Annual visits to origin
		Born in South	Born in South
		War (South)	War (South)
			Muslim
			English
Marginal effects from a probit model, with 4.7%–6.3% of cells multiply imputed.			
Model includes continuous, standardized asset index and its square.			
*** significant at the 99% level, ** 95% level, * 90% level.			

Table 11: Migration and wealth (continuous, risk-averse respondents only)

Out-migration	(1)	(2)	(3)
Subjective wealth (middle)	-.288	-.284	-.179
	(.091) ***	(.105) ***	(.095) *
Subjective wealth (high)	-.118	-.157	-.113
	(.149)	(.147)	(.129)
Observations	72	72	72
Controls	Gender	Gender	Gender
	Age	Age	Age
	Working	Working	Working
	Education (log)	Education (log)	Education (log)
	Father's educ. (log)	Father's educ. (log)	Father's educ. (log)
	Household size (log)	Household size (log)	Household size (log)
		Annual visits to origin	Annual visits to origin
		Born in South	Born in South
		War (South)	War (South)
			Muslim
			English

Marginal effects from a probit model, with 4.7% of cells multiply imputed.
*** significant at the 99% level, ** 95% level, * 90% level.

Table 12: Subjective wealth and migration, risk-averse respondents only

Footnote: attrition in the sense of us only interviewing people who've stuck it out until the referendum - what if all the middle class folks left earlier? would undermine claim that middle class stays. note that khartoum was saying all will be golden pre-referendum. so perhaps those most pro-south left, but probably not for econ-sec tradeoff we talk about here - when exactly did respondents move? variation? early versus late movers? perhaps use later to address former – were middle class departures trending downward? –¿ show that things really got worse from round I to round II, so people weren't really moving before round I also, it wasn't obvious that they were going to get independence! people were skeptical about referendum going ahead? IOM estimates 600k since nov 2010, out of 1.7 million total since CPA

Unpacking the wealth effect - mechanisms

Is the Southern middle class more integrated in Khartoum? Middle tertile about as likely to not have visited home of someone from a different region of origin in the past month as top tertile (38% compared to 36%, with 42% for bottom tertile), but top tertile reports higher average number of visits (4.2 compared to 3 for middle and bottom tertiles) Similar results for having shared a meal with someone from a different region of origin (42% in bottom tertile did not, compared to 24% and 25% for top and middle tertiles, but top tertile averages 8.6 meals compared to 5.2 and 4.2 for middle and bottom tertile) Marriage of family member to someone from a different region found acceptable by most, especially in lower tertile (89% compared to 84% and 82% for middle and top tertiles)

Is middle class just least political, feels less affinity with South?

Is middle class less worried about predation than upper tertile, but more secure than

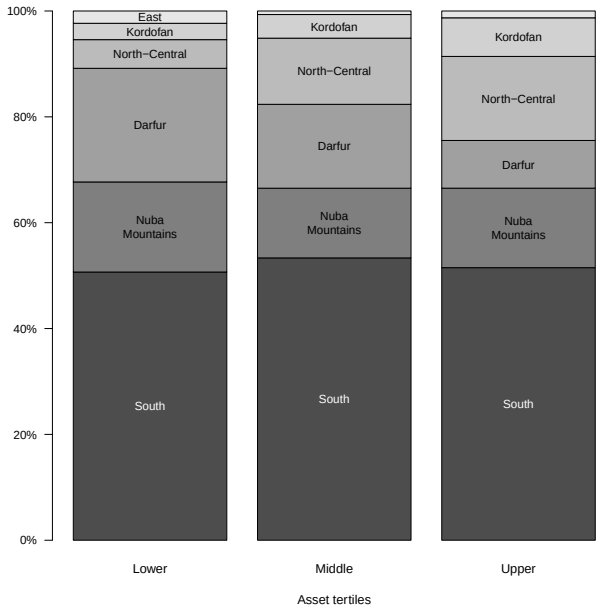

Figure 12: Region of origin for closest people outside family

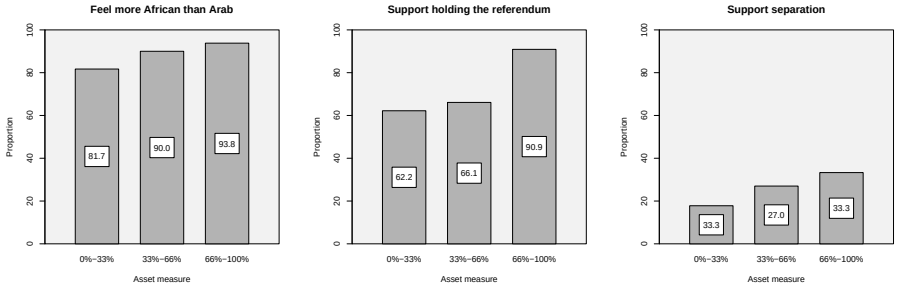

Figure 13: Nationalism and wealth

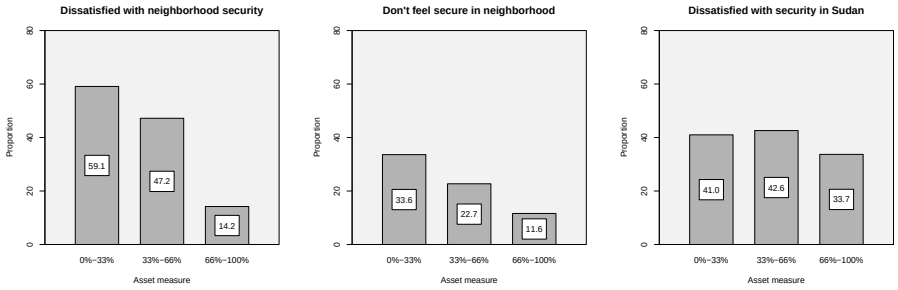

Figure 14: Security and wealth

lower tertile? No

But putting these together suggests that upper tertile leaves for political reasons, lower for security reasons. But they leave bc not dependent on econ opportunity

Could also look at same questions from round 2 (by fall 2011, the situation had really deteriorated considerably for Southerners in the North vs. fall 2010).

6 Life after partition in Khartoum and beyond

We now turn from the correlates of migration choices to the pressures and repercussions that Southerners who decide against migration (at least as of the end of 2011) face in the North. Figure 20 shows the share of respondents who reported a positive, negative, or no effect on their economic well-being, as well as the share of respondents who didn't know or refused to answer these questions. We report results separately for Southerners who have left Khartoum, Southerners who have stayed, as well as for respondents from other regions of origin (North-Central, Darfur, the Nuba Mountains, and Kordofan). Figures 21 and 22 do the same for questions about the perceived effects of partition on physical security and on the respondent's political rights.

Across measures, Southerners who have left Khartoum are the most optimistic about the effects that partition has had on them. They are roughly three times as likely to say that partition has had a positive effect on their political rights compared to Southerners who have stayed in Khartoum, and they are about twice as likely to say that partition has had a positive effect on their economic well-being and personal security situation. This could but does not necessarily imply an improvement in objective conditions faced by Southerners who have relocated. Table 13 summarizes the pre- and post-partition employment status for these respondents, which suggests a worsened total unemployment rate of about 78.8% compared to 56.6% prior to partition. (These figures include women, who are less likely to be formally employed, and others who are not necessarily seeking employment.)

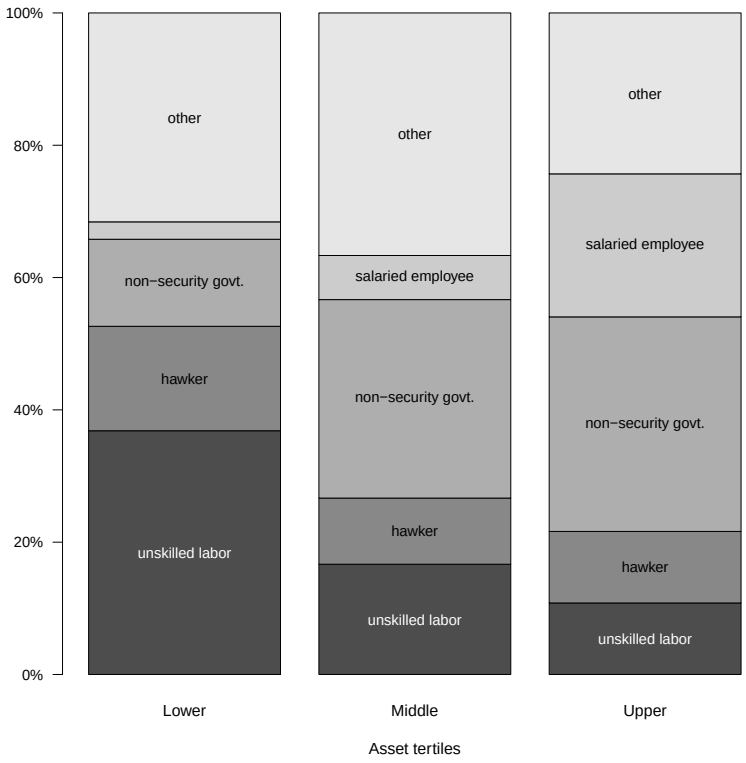

Figure 15: Occupations, by asset index, employed only

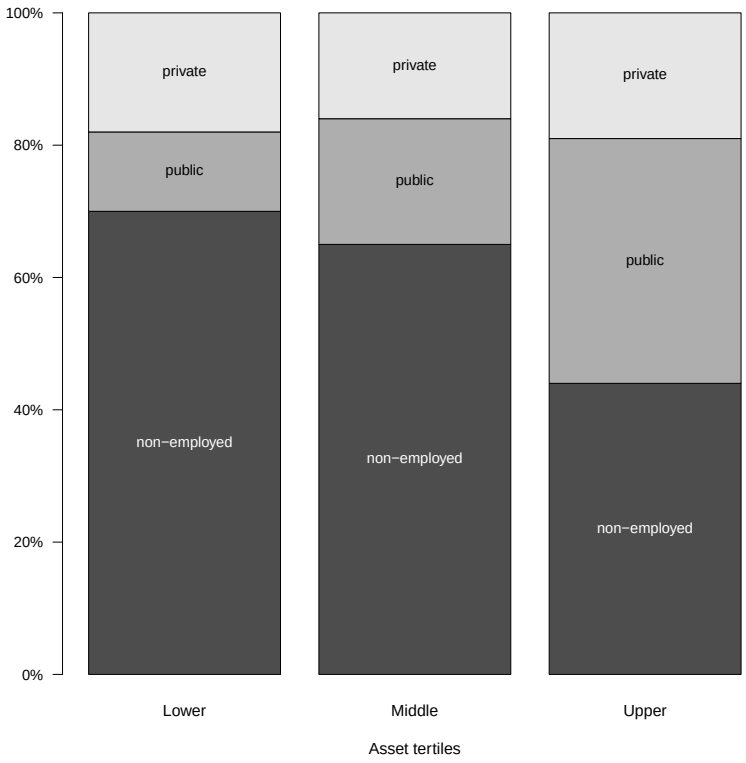

Figure 16: Employment, by asset index, non-students

Figure 17: Locations at follow-up, lower asset tertile

Figure 18: Locations at follow-up, middle asset tertile

Figure 19: Locations at follow-up, upper asset tertile

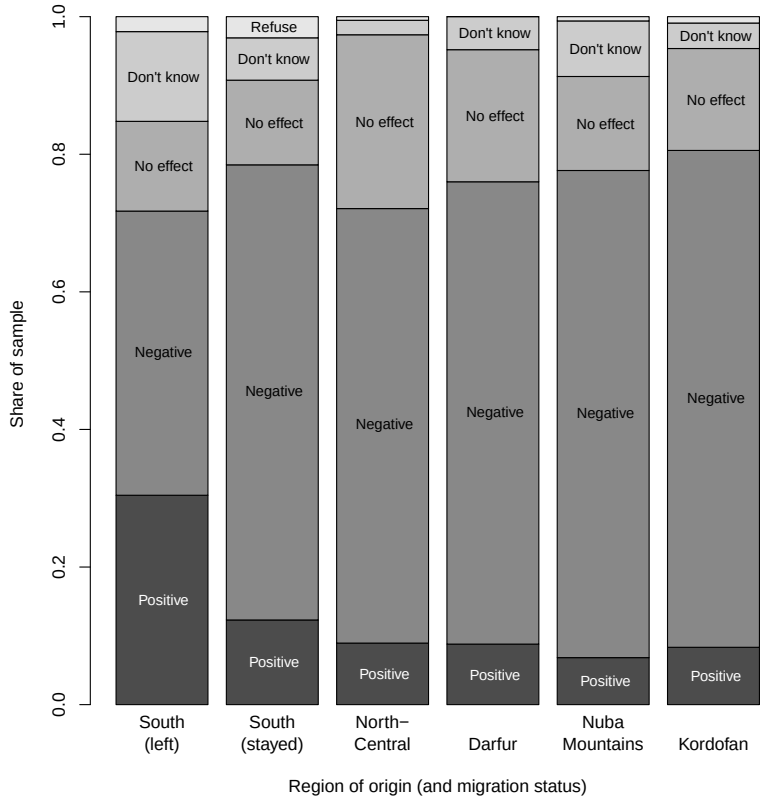

Figure 20: Reported effects of partition on economic well-being

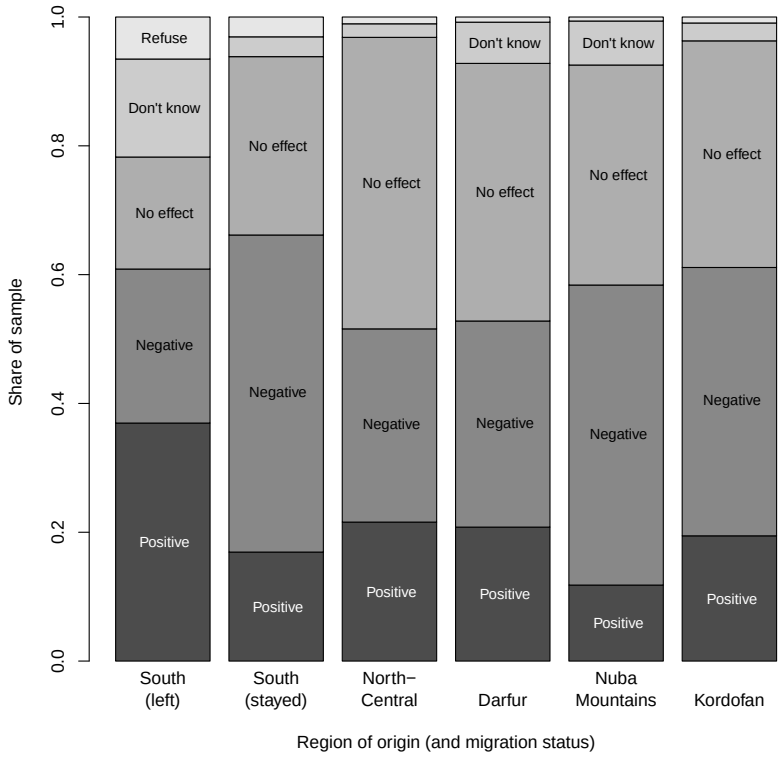

Figure 21: Reported effects of partition on personal security

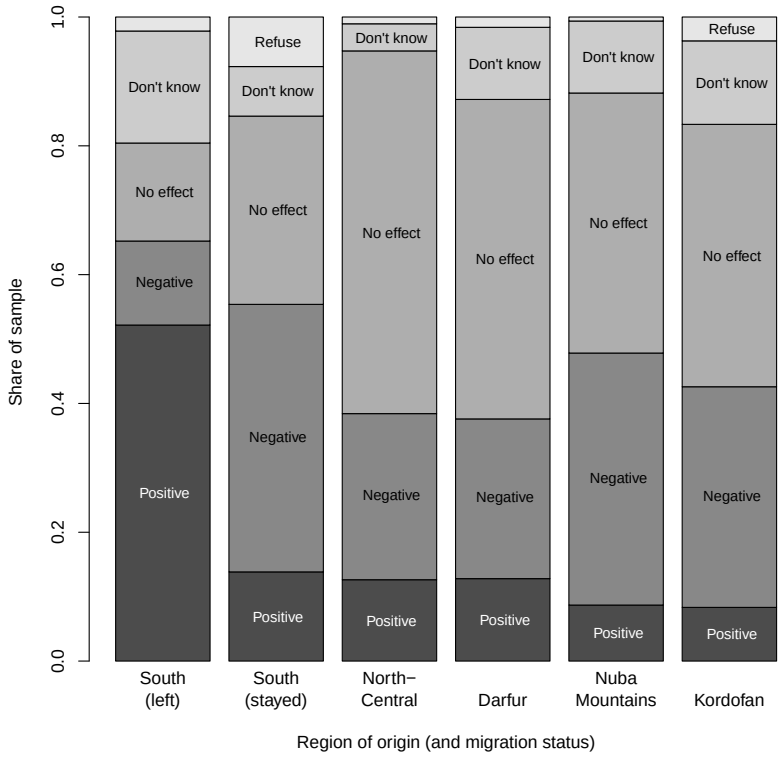

Figure 22: Reported effects of partition on political rights

		Employment status (Round II)		
		Working (full- or part-time)	Not working	Total
Employment status (Round I)	Working (full- or part-time)	8.8%	34.6%	43.4%
	Not working	12.4%	44.2%	56.6%
	Total	21.2%	78.8%	100%

Table 13: Employment status for Southerners who have migrated

		Employment status (Round II)		
		Working (full- or part-time)	Not working	Total
Employment status (Round I)	Working (full- or part-time)	20.7%	12.6%	33.3%
	Not working	17.0%	49.7%	66.7%
	Total	37.7%	62.3%	100%

Table 14: Employment status for Southerners remaining in Khartoum

Perhaps more surprising than the optimism of Southerners who have left Khartoum is the fact that Southerners who have stayed do not appear to report negative effects of partition at a higher rate than other Northern subgroups. In fact, Figure 20 shows that Southern Khartoum residents report positive effects on their economic well-being at a higher rate than any other subgroup, except for Southerners who have left.

This is also borne out in the employment data summarized in Table 14, which shows that Southerners remaining in Khartoum have not lost their jobs at a particularly high rate. In fact, the share of newly employed respondents is larger than the share of respondents who lost employment.

One likely explanation is that those groups of Southerners who were relatively more severely affected by the government's (and private companies') firing of Southern workers relocated to the South to a larger extent. If they had not and migration was not driven by economic concerns, we would expect the Southerners remaining in the North to report relatively more job losses.

We see similar results with respect to the reported effects of partition on physical security and political rights, as reported in Figures 21 and 22. Southerners are about as likely as Nuba respondents and somewhat more likely than other subgroups to indicate negative effects, but not overwhelmingly so.

This could again be partly the result of a selection effect: Those Southerners who were most concerned about their well-being after partition have already left. The fact that we see relatively little differences in the perceptions of the Southerners left in Khartoum and Northern respondents is what one would expect to see after a period of large-scale sorting fuelled by concerns about insecurity, economic and otherwise.

7 Security, Wealth, and Migration Beyond Sudan

8 Conclusion

Partition has given rise to challenging circumstances and questions for Southerners in Khartoum. Many Southerners have decided to relocate to South Sudan, but difficulties await these individuals either way: The prospect of discrimination in Khartoum is surely disagreeable, but so is the lack of comparable development and economic opportunity in the South. This paper provides analysis to indicate how Southerners who lived in the Khartoum metropolitan area prior to the referendum navigate this trade-off, and it suggests that it is middle-class households who are most likely to have decided against rapid relocation. We also show that, as they face a deteriorating situation in Khartoum, Southerners appear to be willing to adapt to changed circumstances.

Southerners in Northern Sudan face stark trade-off between prosperity and security Middle class households most dependent on local economy and thus least likely to migrate Important consequences for development and democratization in South Sudan Robust middle class linked to long-run economic growth (Estaban and Ray 1999), democratic consolidation (Easterly 2001)

Lessons for the international community? Middle class, not the poorest, may be most likely to endure harassment and violence Implications for development and democratization in South Sudan (Estaban and Ray 1999, Easterly 2001)? In order to minimize violence, provide attractive means of relocation

The paper forms part of a larger panel survey project that seeks to address how partition will affect ethnic minorities living in northern Sudan. Most of the prevailing analysis and assumptions about the referendum and Sudanese public opinion are based on impressionistic evidence. The survey presented here is the only one to bring systematic data on Sudanese attitudes at various points during Sudan's partition to bear on these issues.

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