

**Ethnicity and the Swing Vote in Africa's Emerging
Democracies: Evidence from Kenya**

Online Appendix

1. Survey Measures and Variable Definitions

Initial Attitudes and Beliefs (Figure 1):

Feel close to party: “Do you feel close to any particular political party?” If yes: “Which party is that?”

Undecided: “If the election were between only Raila Odinga and Uhuru Kenyatta, which candidate would you vote for?” Coded as 1 for respondent who said “Don’t Know.”

Disparity between candidates: “How well do you think each of the following candidates would represent the interest of your ethnic group if elected: very well, somewhat well, not well, or not at all?”

Models of Preference Change (Table 2):

Vote choice: “If the election were between only Raila Odinga and Uhuru Kenyatta, which candidate would you vote for?”

Mixed parentage: Constructed from questions that asked about the ethnic identity of respondents’ mother and father.

Spouse from different ethnic group: Constructed by asking whether respondents were married, and if so, the ethnicity of their spouse.

Non-co-ethnics in network: Constructed by first asking respondents to list up to four individuals with whom they discuss politics (“Is there anyone you talk with about politics and elections?”) and then asking about the ethnicity of each individual mentioned. This measure is a count ranging from 0 to 4 of the number of non-co-ethnics mentioned.

Non-co-ethnics in EA sample: Constructed as the share of non-co-ethnic respondents in each respondent’s sample cluster.

Political interest: “How much interest do you have in politics: a lot, some, a little, or very little?”

Education: “What is the highest level of education you have completed?”

Radio news consumption: “During a typical week, how many days do you listen to the radio?”

Newspaper consumption: “How many days do you read a newspaper?”

TV news consumption: “How many days do you watch TV?”

Vernacular radio source: To create this variable, the round 1 survey recorded the name of the radio station from which respondents obtained radio news most frequently. All stations were coded as either primarily English/Swahili or vernacular by a Kenyan research assistant. Among the 73 stations mentioned, we were unable to find information on 11.

Wealth: Measured by an asset index constructed using principal components analysis based on a series of seven questions that asked about household ownership of the following items: radio, television, bicycle, motorcycle, car, fridge, computer.

Age: “How old are you?”

Female: Recorded by interviewers.

Days between interviews: constructed as the number of days between the round 1 and round 2 interviews.

Additional Variables in Models of Direction of Change (Table 3 and Figure 2):

Beliefs about Kenyatta and Odinga’s ethnic intentions: Constructed from questions on both surveys that asked, “How well do you think each of the following candidates would represent the interests of your ethnic group if elected: very well, somewhat well, not well, or not at all?” Changes in beliefs about each candidate are defined as the round 2 response minus the round 1 answer.

Overall evaluation of Kenyatta and Odinga: Constructed from questions on both surveys that asked, “For each of the following politicians, please tell me whether you like the candidate very much, like him somewhat, neither like him nor dislike him, dislike him somewhat, or dislike him very much.” Changes in beliefs about each candidate are defined as the round 2 response minus the round 1 answer.

Additional Variables in Tests of Alternative Explanations:

Campaign exposure:

- *Contacted in home:* “Has a candidate or agent of any political party come to your home since the campaigns began?” If yes, “Which party or parties have come to your home?”
- *Received SMS:* “Have you received text messages encouraging you to vote for any particular party?” If yes, “For which party or parties did the messages encourage you to vote?”
- *Offered money:* “Since the beginning of the campaigns, how many times has a candidate or someone from a political party offered you or someone in this household money or a gift in return for you vote?” If >0, “Which party or parties have offered money or gifts?” [Up to three mentions].

- *Attended rally:* “Have you attended any campaign rallies since the campaigns began?” If yes, “Which parties’ rallies have you attended?”

Fear of social reprisal / fear of violence: The survey first asked, “Thinking about the upcoming presidential election, which candidate do you think most people in this area support?” To probe perceptions about social reprisal, it then asked, “Now imagine that you voted against [INSERT NAME]. How afraid would you be that others would exclude you from social gatherings like wedding and funerals because of your vote?” To probe fear of violent retribution, it asked, “If others in the area knew that you voted against [INSERT NAME], how afraid would you be that others would attack or harm you because of your vote?”

Additional Variables in Robustness Tests:

Beliefs about Mudavadi’s ethnic intentions: Constructed from questions on both surveys that asked, “How well do you think each of the following candidates would represent the interests of your ethnic group if elected: very well, somewhat well, not well, or not at all?”

Overall evaluation of Mudavadi: Constructed from questions on both surveys that asked, “For each of the following politicians, please tell me whether you like the candidate very much, like him somewhat, neither like him nor dislike him, dislike him somewhat, or dislike him very much.”

2. Attrition Weights

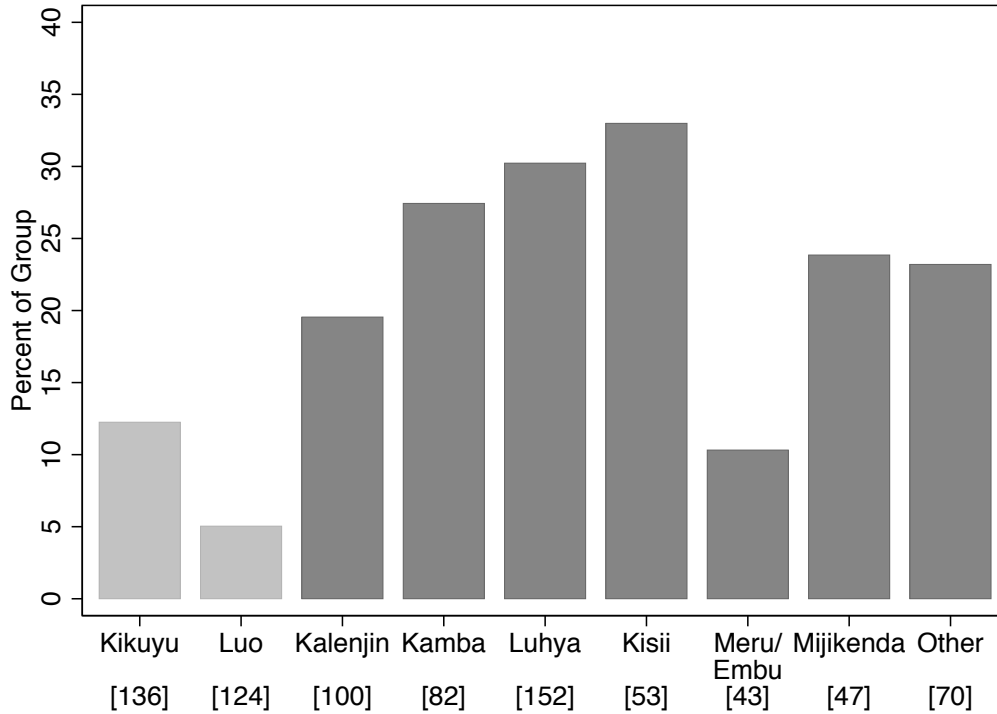
All analysis employs weights to reduce bias stemming from attrition between survey rounds. Following Fitzgerald, Gottschalk, and Moffitt (1998), I estimated inverse propensity weights (IPW) using a three-step procedure.

The first step was to identify factors that predict attrition. Feedback from the local survey company that conducted the interviews suggested that a primary source of attrition was variability in the quality of the seven teams (one per province) that conducted the second-round interviews. I therefore included province dummies. I also explored three other types of variable. First, I explored the individual-level covariates used in the models of preference change (measured in the first round): ethnicity dummies; whether respondents had a different spouse or partner; the diversity of social networks; the diversity of enumeration areas; political interest; education; the frequency of obtaining news from radio, newspapers, and TV; age; and gender. Second, I included measures of initial electoral preferences with dummy variables for Kenyatta supporters, Odinga supporters, those who were undecided between the two major candidates in the first round, and whether respondents reported feeling close to any party. Third, I included first-round variables that indicated a respondent might be disinclined to participate in a follow-up survey and/or might be difficult to reach. These included whether the respondent had a phone, the distance of his/her dwelling from the nearest major road, whether he/she was married, whether he/she was unemployed, and dummies for whether the interviewer rated the respondent as hostile, bored, or impatient during the first interview. I used bivariate logit models to test whether each of these 42 factors was significantly related to attrition, and retained all variables with a p-value less than .2.

Second, I estimated a logit model of attrition that included the 22 variables identified in the first step and generated predicted attrition probabilities for all respondents. Finally, I created inverse propensity weights by taking the inverse of 1 minus the predicted probability of attrition.

3. Additional Descriptive Statistics

Figure A1. Preference Change by Ethnic Group



Notes: This figure shows the proportion of respondents that changed stated electoral preferences between survey rounds for all ethnic groups that make up 5% or more of the population (and a residual “other “ category). Groups with a viable co-ethnic in the presidential race are shown in light grey, and other groups are shown in dark grey. Sample sizes are shown in brackets.

Table A1. Descriptive Statistics for Table 2

	Mean	SD	Min	Max
Preferences changed during campaign	.195	.40	1	1
Co-ethnic in the race (Kikuyu / Luo)	.32	.47	0	1
Mixed parentage	.08	.27	0	1
Spouse from different ethnic group	.07	.26	0	1
Non-co-ethnics in network [0 to 4]	.13	.46	0	4
Non-co-ethnics in EA sample [share]	.29	.32	0	.95
Political interest [4-point scale]	2.62	1.07	1	4
Education [8-point scale]	4.2	1.9	1	8
Radio news consumption [# days per week]	5.8	2.3	0	7
Newspaper consumption [# days per week]	1.5	2.4	0	7
TV news consumption [# days per week]	3.4	3.2	0	7
Vernacular radio source [yes]	.31	.46	0	1
Wealth index	.05	1.56	-1.54	6.05
Age	34.4	13.2	18	87
Female	.49	.50	0	1
Days between interviews	66	7.7	40	86

Notes: Data is weighted to adjust for attrition between survey rounds.

4. Alternative Explanations

4.1 Party Switching

Table A2. List of Party Switchers

Date	Name	Ethnic group	Prominence	Former party	New party
11/21/2012	Beatrice Kones	Kalenjin	Minor	ODM	URP
11/21/2012	Alex Mbui Muiru	Meru	Minor	PNU	URP
11/31/2012	James Nyoro	Kikuyu	Minor	TNA	GNU
12/1/2012	Wilfred Machage	Kuria	Major	DP	ODM
12/2/2012	James Rotich	Kalenjin	Minor	ODM	URP
12/2/2012	Kiptum Binott	Kalenjin	Minor	ODM	URP
12/4/2012	Gitobu Manyara	Meru	Major	CCU	ODM
12/5/2012	Alexander Ngeno	Kalenjin	Minor	URP	Kanu
12/5/2012	Emmanuel Imana	Turkana	Minor	ODM	Kanu
12/6/2012	Bishop Godfrey Shiundu	Luhya	Minor	New Ford-K	ODM
12/6/2012	Bishop Robert Makona	Luhya	Minor	New Ford-K	ODM
12/6/2012	Bishop Maurice Maelo	Luhya	Minor	New Ford-K	ODM
12/10/2012	Charity Ngilu	Kamba	Major	Cord	Jubilee
12/13/2012	Daniel Karaba	Kikuyu	Minor	Narc-K	TNA
12/15/2012	Joseph Nyagah	Kikuyu	Major	ODM	TNA
12/18/2012	Zachary Ogongo	Kisii	Minor	Narc	ODM
12/18/2012	Robert Masese	Kisii	Minor	Narc	ODM
12/18/2012	Jackson Mjagi	Meru	Minor	PNU	ODM
12/22/2012	Aden Sugow	Somali	Minor	TNA	ODM
12/26/2012	Chachu Ganya	Gabra	Minor	N/A	URP
12/26/2012	Jeremiah Kioni	Kikuyu	Minor	N/A	UDF
12/26/2012	Soita Shitanda	Luhya	Major	N/A	UDF
12/26/2012	George Khaniri	Luhya	Minor	N/A	UDF
12/26/2012	Yusuf Chanzu	Luhya	Minor	N/A	UDF
12/26/2012	Justus Kizito	Luhya	Minor	N/A	UDF
12/26/2012	Samuel Poghisio	Maasai	Major	N/A	URP
12/26/2012	Gideon Konchellah	Maasai	Major	N/A	URP
12/26/2012	Chirau Mwakwere	Mijikenda	Major	N/A	URP
12/26/2012	Aden Duale	Somali	Major	N/A	URP
12/26/2012	Kanzungu Kambi	Taita	Major	N/A	URP
12/26/2012	Ekwe Ethuro (MP)	Turkana	Major	N/A	URP
12/30/2012	David Koros	Kalenjin	Minor	ODM	URP
12/30/2012	Cyrus Jirongo	Luhya	Major	Pambazuka alliance	Cord
1/1/2013	Njagi Kumantha	Embu	Minor	Democratic	TNA

				Party	
1/1/2013	Martin Nyaga Wambora	Embu	Minor	APK	TNA
1/1/2013	Sylvester Gakumu	Embu	Minor	TNA	Narc-Kenya
1/8/2013	Peter ole Mositet	Maasai	Minor	ODM	TNA
1/9/2013	Catherine Wanjiku Irungu	Luhya	Minor	TNA	Mazingira Green Party
1/15/2013	Nderitu Mureithi	Kikuyu	Minor	PNU	UDF
1/15/2013	George Nyamweya	Kisii	Minor	PNU	UDF
1/15/2013	Stanley Livondo	Luhya	Minor	PNU	UDF
1/17/2013	Simon Lilan	Kalenjin	Minor	ODM	Wiper
1/17/2013	Laban Matelong	Kalenjin	Minor	ODM	Wiper
1/17/2013	Hassan Omar Sarai	Somali	Minor	ODM	Wiper
1/18/2013	Geoffrey Muturi	Embu	Minor	TNA	APK
1/19/2013	John Mututho	Kikuyu	Major	TNA	Narc
1/20/2013	Peter Ondieki	Kisii	Minor	ODM	PDM
1/20/2013	Mwakwazi Mtongolo	Taita	Minor	ODM	Wiper
1/21/2013	Hellen Sambili	Kalenjin	Minor	URP	Kanu
1/22/2013	Callen Orwaru	Kisii	Minor	TNA	The Independent Party
1/22/2013	Alfrida Gisairo	Kisii	Minor	ODM	Federal Party of Kenya
1/22/2013	Mary Orwenyo	Kisii	Minor	ODM	Progressive Party of Kenya
1/23/2013	Moses Changwony	Kalenjin	Minor	URP	Kanu
1/23/2013	Mark Chesegon	Kalenjin	Minor	URP	Kanu
1/23/2013	Irene Masit	Kalenjin	Minor	URP	Kanu
1/23/2013	Tabitha Seii	Kalenjin	Major	ODM	Wiper
1/24/2013	Mutua Katuku	Kamba	Minor	Wiper	CCU
1/26/2013	Adipo Akuome	Luo	Minor	ODM	Wiper
1/26/2013	Polynce Ochieng	Luo	Minor	ODM	Wiper
1/27/2013	Manyala Keya	Luhya	Minor	UDF	New Ford-K
1/27/2013	Soita Shitanda	Luhya	Major	UDF	New Ford-K
1/27/2013	George Munji	Luhya	Minor	UDF	Kanu
1/27/2013	John Shimaka	Luhya	Minor	UDF	Wiper
1/27/2013	Jared Okello	Luo	Minor	N/A	Ford-K
1/27/2013	Badi Twalib	Swahili	Minor	ODM	Wiper
2/4/2013	Zachary Obado	Luo	Minor	ODM	PDP

Table A3. Party Switching by Ethnicity

	Major	Minor	Total
Kikuyu	2	4	6
Luo	0	4	4
Kalenjin	1	11	12
Kamba	1	1	2
Luhya	3	11	14
Kisii	0	7	7
Meru/Embu	1	6	7
Mijikenda	1	0	1
Other	6	7	13
TOTAL	15	51	66

Figure A2. Party Switchers and Preference Change

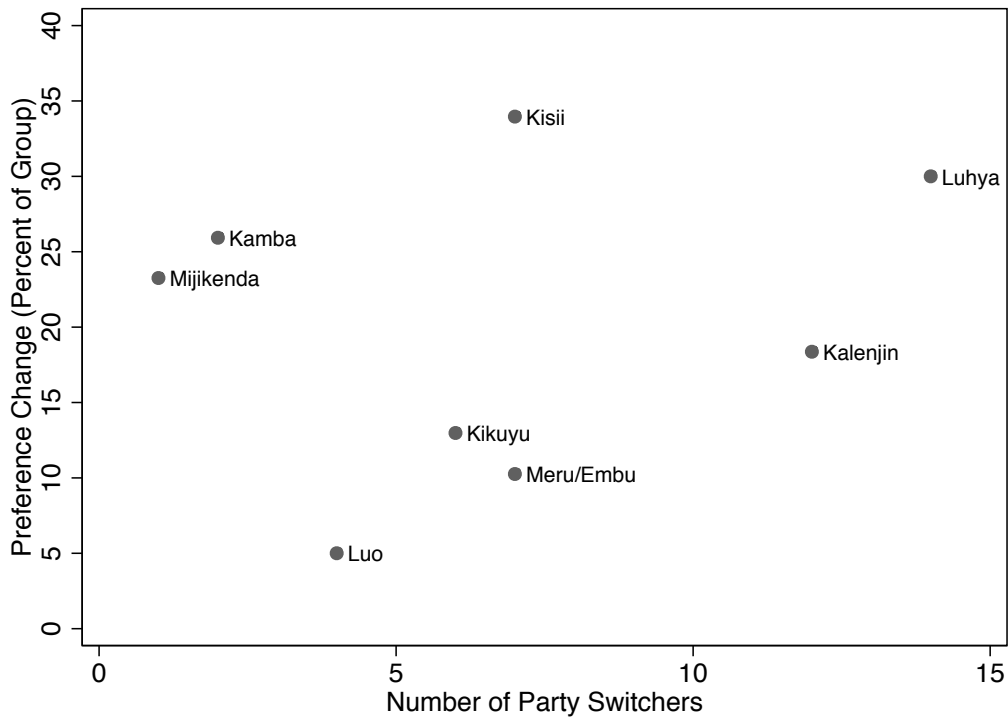


Table A4. Logit Models of Preference Change – Accounting for Mudavadi’s Departure from Jubilee

	(1)	(2)	(3)
Co-ethnic candidate in race	-0.89** (0.00)	-0.94** (0.00)	-0.90** (0.00)
Overall evaluation of Mudavadi		0.03 (0.79)	
Beliefs about Mudavadi’s ethnic intentions			0.14 (0.24)
Luhya respondents excluded	Yes	No	No
Controls from Table 2	Yes	Yes	Yes
Observations	583	660	696
Pseudo R-squared	0.08	0.08	0.08

Notes: Data is weighed to account for attrition. p-value in parentheses; ** p<0.01, * p<0.05, + p<0.1

4.2 Campaign Exposure

Table A5. Campaign Exposure (percentages)

	(1) Groups <i>with</i> a co- ethnic in the race	(2) Groups <i>without</i> a co- ethnic in the race	Difference (1-2)
Contacted by Cord	7.7	4.7	2.9
Contacted by Jubilee	3.5	3.1	0.4
Received Cord SMS	4.4	0.5	3.9**
Received Jubilee SMS	3.4	0.9	2.4*
Offered money by Cord	7.8	5.0	2.8
Offered money by Jubilee	3.4	2.7	0.7
Attended Cord rally	24.9	23.1	1.8
Attended Jubilee rally	16.4	20.4	-4.0

Notes: Data is weighed to account for attrition. *p<.05; **p<.01

4.3 Social Sanction

Table A6. Perceived Threat of Social Sanction

	(1) Groups <i>with</i> a coethnic in the race	(2) Groups <i>without</i> a coethnic in the race	Difference (1-2)
Fear of social reprisal (four-point scale)	1.91	1.76	0.15
Fear of violence (four-point scale)	1.79	1.72	0.07

Notes: Data is weighed to account for attrition. *p<.05; **p<.01

5. Robustness tests

5.1. Alternative Coding of Core Groups

As noted in the text, I treat two groups – the Kikuyu and Luo – as the core communities that had a co-ethnic leader in the 2013 race. Yet, one might think that having a vice-presidential nominee in the race would also provide a strong signal about which political alliance will best represent one’s ethnic group. It might therefore be appropriate to treat the Kalenjin and Kamba as core groups, given the presence of William Ruto (a Kalenjin) and Kalonzo Musyoka (a Kamba) as the vice presidential nominees on the Jubilee and CORD tickets. To test this, I generate an alternative specification of the key independent variable – co-ethnic candidate in the race – that takes a value of 1 for Kikuyus, Luos, Kalenjins, and Kambas. I re-estimate the main results from Table 2 using this alternative measure, again including all control variables from Table 2. The results in Table A7 show that the main findings are robust to treating the Kalenjin and Kamba as core groups.

Table A7. Logit Model of Preference Change – Alternative Specification of Core Groups

Co-ethnic candidate in race – alternative specification	-0.45* (0.04)
Controls from Table 2	Yes
Observations	728
Pseudo R-squared	0.07

Notes: Data is weighed to account for attrition. p-value in parentheses; ** p<0.01, * p<0.05, + p<0.1

5.2. Attrition

The data would be biased in favor of confirming the prediction that those without a co-ethnic in the race will be more likely to change their preferences during the campaign period if: 1) among core groups, those more likely to change their preferences were more likely to drop out of the panel; 2) among swing groups, those more likely to change their preferences were less likely to drop out; or both. The data suggest, however, that attrition biased the sample in the opposite direction.

The best predictor of preference change (other than having a co-ethnic in the race) identified in the analysis of preference change (Table 2) is political interest. However, among those with a co-ethnic in the race, attrition was substantially higher for the more politically interested while being nearly identical among those without a co-ethnic in the race. Among those with a co-ethnic in the race, the attrition rate was 40.8% for those more interested in politics and 26.8% for those less interested. For those without a co-ethnic in the race, the attrition rates were 32.4% and 33.1% among those with more and less political interest.

Second, the results showed that respondents who primarily obtained news from vernacular radio stations were less likely to update their preferences. However, vernacular listeners were slightly more likely to drop out among those with a co-ethnic in the race, and slightly less likely to drop out among those without a co-ethnic, biasing against the main hypothesis. Among those with a co-ethnic in the race, the attrition rate among vernacular listeners was 35.9% compared to 33.5% for others. Among those without a co-ethnic in the race, the dropout rate for vernacular listeners was 31.0% compared to 33.3% for others.

Finally, as noted, all analysis is weighted to adjust for attrition on observables following Fitzgerald, Gottschalk, and Moffitt (1998).

5.3. Interviewer Effects

Could the observed patterns of preference change be driven by interviewer effects? This would be a particular concern if many respondents were interviewed by a co-ethnic in one round and a non-co-ethnic in the other round. Another concern is that probability of being interviewed by a non-co-ethnic in one or both rounds could be higher for members of “swing” groups, accounting for the increase in preference change relative to “core” groups.

Table A8 provides details on interviewer-respondent co-ethnic matching. The table shows that in both rounds, the share of respondents interviewed by non-co-ethnic enumerator was similar across groups that did and did not have a co-ethnic in the race. I also re-estimate the main logit model of preference change from Table 2 including dummy variables for respondents who were interviewed by non-co-ethnics in round 1 and round 2. I also include an interaction term, which accounts for respondents who were interviewed by a non-co-ethnic in one round and a co-ethnic in the other (the inclusion of the interaction terms means that the coefficients for each of the dummy variables for round 1 and round 2 represent the effect of having been interviewed by a non-co-ethnic in that round and a co-ethnic in the other round). Caution should be exercised in interpreting the results because interviewer ethnicity was not randomly assigned, and the interviewer ethnicity variables could be confounded by other factors (for example, members of some groups were more likely to be interviewed by non-co-ethnics than members of others). Nonetheless, the results in Table A9 show that the main finding is robust to the inclusion of interviewer effects.

Table A8. Interviewer-Respondent Ethnicity Match (percentages)

	(1) Groups <i>without</i> a coethnic in the race	(2) Groups <i>with</i> a coethnic in the race	Diff. (1-2)	p-value
Non-co-ethnic interviewer, round 1	59.0	55.7	3.3	.39
Non-co-ethnic interviewer, round 2	61.1	54.3	6.7	.08
Non-co-ethnic interviewer in both rounds	52.6	48.9	3.7	.35

Notes: Data is weighed to account for attrition.

Table A9. Logit Model of Preference Change

Co-ethnic in the race	-0.98** (0.00)
Non-co-interviewer in round 1 (NCO_r1)	-0.41 (0.37)
Non-co-interviewer in round 2 (NCO_r2)	-1.62* (0.03)
NCO_r1 * NCO_r2	2.05* (0.02)
Controls from Table 2	Yes
Observations	728
Pseudo R-squared	0.09

Notes: Data is weighed to account for attrition. p-values in parentheses; ** p<0.01, * p<0.05, + p<0.1

6. Aggregate Gains and Losses

Table A10 provides details on aggregate movement by ethnic group across the campaign period for all communities that make up 5% or more of the population (these groups collectively account for roughly 86% of the Kenyan population). Though the small group samples mean that most of the observed changes are not statistically significant, the data suggests that with only one exception (the Kisii) each candidate gained support (or held steady) with groups in which the candidate was the more popular choice at the start of the race. Kenyatta's support among co-ethnic Kikuyus rose by approximately 5.2% and by a similar margin (4.8%) among the co-ethnic group of his Kalenjin running mate, Ruto. These gains strengthened Jubilee's position as a "Kikuyu-Kalenjin" alliance that drew nearly-universal support from these two core communities. Kenyatta also increased vote share among Meru/Embu voters (+7.4%), a group closely aligned to the Kikuyu. Likewise, Odinga's support remained high among co-ethnic Luos, nearly all of whom expressed an intention to support Odinga at the start of the race, and increased among voters from the Kamba (+5.9) ethnic group of his running mate, Musyoka, further cementing CORD as a "Luo-Kamba" coalition. Odinga also increased vote share among the Luhya (+21.4) and Mikikenda (+8.3) – groups that favored Odinga at the start of the race. In sum, these aggregate movements served to increase the extent of ethnic bloc voting. One plausible explanation for these trends is that the ethnic identity of the key leaders at the top of the ticket is important not only in shaping voters' initial preferences at the start of the race but also affects the success of parties' effort at persuasion during the campaign.

Table A10. Aggregate Gains/Loses by Ethnic Group

	Kenyatta			Odinga			Don't know		
	R1	R2	<i>Diff.</i>	R1	R2	<i>Diff.</i>	R1	R2	<i>Diff.</i>
Kikuyu	88.9	94.1	+5.2 ⁺	8.2	5.1	-3.1	2.9	0.8	-2.1
Meru/Embu	83.5	91.0	+7.4	15.2	6.3	-8.9	1.3	2.7	+1.4
Kalenjin	81.5	86.2	+4.8	10.6	11.6	+1.0	7.9	2.2	-5.8*
Kisii	24.7	30.8	+6.1	64.9	67.6	+2.7	10.4	1.6	-8.8*
Kamba	18.0	15.1	-2.9	76.6	82.5	+5.9	5.5	2.4	-3.0
Luhya	12.0	9.8	-2.2	64.5	85.9	+21.4**	23.5	4.4	-19.1**
Mijikenda	10.0	4.5	-5.5	78.3	86.7	+8.3	11.7	8.8	-2.9
Luo	2.7	2.3	-0.4	94.5	94.6	+0.1	2.7	3.1	+0.3
Other	40.3	44.5	+4.2	52.4	54.3	+1.9	7.3	1.2	-6.1*
TOTAL	44.0	46.7	+2.8	47.6	50.7	+3.1	8.4	2.6	-5.8**

Notes: Groups are ordered by strength of support for Kenyatta in Round 1. Round 2 figures are weighted to account for attrition. ** p<0.01, * p<0.05, + p<0.1