Ethnofederalism and ethnic voting

Richard Bluhm, Roland Hodler and Paul Schaudt

EEA-ESEM 2022

Motivation

Diversity paradox: National politics $\approx$ ethnic politics in many dev'ing countries, e.g., ethnic voting, ethnic favoritism, and ethnic conflict, are all part of the story.

The salience of ethnicity changes with elections, propaganda, national soccer, school curricula, and intergroup contact.

Big picture question: Can political institutions bridge the ethnic divide in diverse countries? Can they reduce ethnic grievances at the ballot box and avert outright conflict?

This paper: Can changes in the administrative-territorial structure modify ethnic voting behavior, in one of the most ethnically charged contexts (Kenya) ?

Boundaries and ethnic geography

Old question: *"How many units should there be, and should they be ethnically homogeneous or heterogeneous?"* (Horowitz 1985)
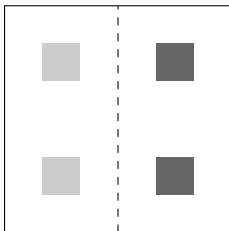
Illustration: Consider several stylized configurations in a country with 4 locations and 2 groups.
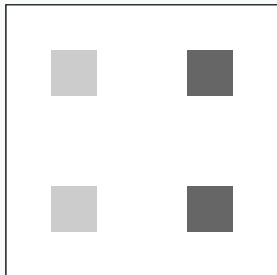
Ethnofederalism (Lijphart 1977, Horowitz 1985)

Characteristics

- Admin borders follow ethnic homeland boundaries.
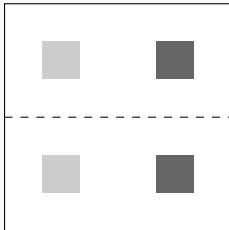- Devolution of power to subnational administrative units.

Arguments in favor

- Sensitive issues removed from national level (e.g. education).
- Changes costs of voting for ethnic candidate at national level.

Crosscutting (Lipset 1960, Roeder 1991)

- Subnational administrative borders intersect ethnic homelands.
- No special powers granted to the local level.

- Reduces salience of ethnicity in national politics.
- Regions become microcosm of nation (contact appeases?).

Related literature

Diversity, nation building and conflict

- Resettlement (Bazzi et al. 2019), propaganda (Blouin/Mukand 2018), school curricula (Miguel, 2004; Cantoni et al., 2017; Bandiera et al., 2019) and soccer (Depetris-Chauvin et al., 2020).
- Local diversity and conflict (Arbatlı 2020, Bazzi/Gudgeon 2021)

Theory and measurement

- Federalism and ethnofederalism (e.g. Horowitz 1985)
- Measurement (e.g., Taylor/Rae 1969, Desmet et al. 2017)

Ethnic politics and diversity

- Ethnic voting (e.g., Huber 2012, Ichino/Nathan 2013)
- Kenya (e.g., Gibson/Long 2009, 2015, Ferree et al. 2014, Burgess et al. 2015, Kramon/Posner 2016, Kramon et al. 2021).

1-slide summary

Contribution: First causal evidence on how political institutions affect ethnic voting in an ethnically charged context.

Novel approach for measuring (experienced) ethnofederalism and crosscuttingness at the *subnational* level.

Novel approach for measuring ethnic voting at individual level using bilateral specifications based on survey data.

Key results:

1. Ethnic voting at national level decreases when administrative regions become less ethnically diverse.
2. Weak evidence for a reduction when ethnic groups become less fragmented across regions.

Measurement

Measuring ethnic voting

A group-based perspective: The more members of a group vote alike, the more informative is their ethnic identity for the voting intention of its members (Huber, 2012).

Outcome: Common voting among pairs of respondents (i, j) in same ethnic group e at time t

$$CV_{ijt} = \mathbb{I}(vote_{it} = vote_{jt})$$

Interpretation: The expectation of common voting across all pairs within an ethnic group gives *the probability that two randomly selected respondents of this group vote for the same party*, or one minus vote fractionalization in this group.

Measuring ethnofederal and crosscutting structures

Regional fractionalization: Fractionalization *across* ethnic groups *within* administrative regions.

$$RF_c = 1 - \sum_{e=1}^{n}(s_e^c)^2,$$

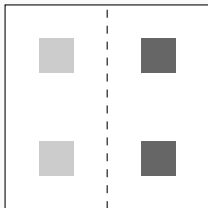where n is the number of groups and s_e^c the population share of group e in region c.

Ethnic fragmentation: Fractionalization *across* administrative regions *within* ethnic groups:

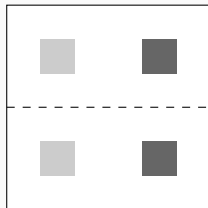$$EF_e = 1 - \sum_{c=1}^{m}(s_c^e)^2,$$

where m is the number of regions and s_c^e the population share residing in region c among members of group e.

Mapping to administrative designs

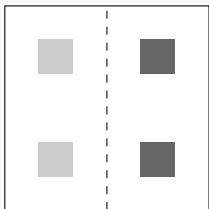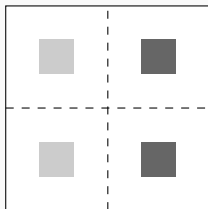
Ethnofederalism: ↓ EF, ↓ RF

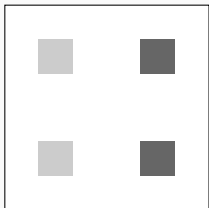Crosscutting: ↑ EF, ↑ RF

Mapping to administrative designs

Ethnofederalism: ↓ EF, ↓ RF

Provincialism: ↑ EF, ↓ RF

Unitarism: ↓ EF, ↑ RF

Crosscutting: ↑ EF, ↑ RF

Measurement
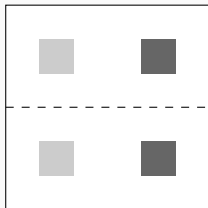
Real world

- RF_c and reform-induced changes ΔRF_c vary across regions c.
- EF_e and reform-induced changes ΔEF_e vary across groups e.
- "Experienced" ethnofederalism/cross-cuttingness varies across individuals.

Advantages of using ΔRF_c and ΔEF_e

- Two components of cross-cuttingness (Taylor/Ray 1969)
- Easier to identify causal effects than in a cross-country setting.
- More nuanced picture of administrative-territorial reforms and their effects (see "off-diagonals" on previous slide).

Kenya

Background

Demographics and ethnic politics

- About 50m inhabitants, 40^+ ethnic groups/tribes: Kikuyu 17%, Luhya 15%, Kalenjin 13%, Luo 11%, Kamba 10%, . . .
- Ethnicity is salient in national politics: ethnic voting, ethnic favoritism, inter-group violence. ▸ Parties, candidates & coalitions.

2010 constitutional reform, effective with 2013 elections

- Ethnic violence in Rift Valley (and elsewhere) after 2007 election. 1,000 died and hundreds of thousands displaced.
- Unity government presents new constitution in 2010 (approved by 68% of voters in referendum).
- 3/4 believed new constitution can prevent violence, 2/3 believed no group is being advantaged (Kramon/Posner 2011)

Features of the constitutional reform

Pre-reform situation: "Power rests with the executive branch and the most powerful force in local government is the provincial administration" (World Bank, 2008).

Political devolution: 15% of revenue central gov't revenue to counties, devolution of duties (health care, education & roads).

Territorial reform:

- 47 counties replaced 8 provinces as main subnational units.
- County borders correspond to colonial district borders just before independence. ▶ Maps from 1909 until 1963.
- County borders do not intersect province borders.
- Reform changed RF_c and EF_e for the all regions and groups.

Data and empirical strategy

Afrobarometer

Four surveys for Kenya, rounds 3–8

- 2 rounds in pre-treatment period: 2005 and 2008
- 1 round in-between decision and implementation: 2011
- 3 rounds in post-implementation period: 2014, 2016 & 2019

Structure of data

- Bilateral: Pairs of respondents surveyed in the same round t.
- Repeated cross-section of respondent pairs (i, j).
- Final sample: 69,118 co-ethnic respondent pairs residing within the same county with complete data.
- Geo-coordinates of cluster locations in R3–R6 (BenYishay et al. 2017) and GPS coordinates for R7–R8. ▸ Maps.

From common voting to ethnic voting

- Voting intention: "If presidential elections were held tomorrow, which party's candidate would you vote for?"
- This information is available for 7,724 respondents from 933 different clusters and 20 different ethnic groups.

- The probability of common voting is 67.9% for co-ethnic pairs (and 39% for non-co-ethnic pairs).
- Voting intentions match co-ethnic voting in exit polls. ▸ Figure.
- Common voting closely tracks probability of voting for same ethnic party (for the biggest groups). ▸ Figure.

Treatment

1989 Kenya Population and Housing Census

- Geocoded 5% sample, representative at the level of 3,600 sublocations (contained within counties).
- Last census which discloses ethnicity in microdata.
- Our indices change only in response to the borders and do not capture potential migratory responses.

ΔRF_c: Difference between post-reform county-level RF_c and pre-reform province-level $RF_{p(c)}$.

ΔEF_e: Difference between a group's EF_e given post-reform county borders and its EF_e given pre-reform province borders.

Event study specification

We estimate the following model:

$$CV_{ijt} = \sum_{t=3}^{8} \beta_t (I_t \times \Delta RF_c) + \sum_{t=3}^{8} \gamma_t (I_t \times \Delta EF_e) + \mu_{ce} + \lambda_t + \mathbf{Z}'_{ijt}\boldsymbol{\xi} + \epsilon_{ijt}$$

where

- I_t represents indicator variables for Afrobarometer survey rounds 3–8
- ΔRF_c change in regional fractionalization
- ΔEF_e change in ethnic fragmentation
- μ_{ce} are county–by–ethnicity fixed effects
- λ_t are survey round-fixed effects
- $\mathbf{Z}_{ijt}$ proxies for other potential cleavages, such as age, gender, economic status (measured by household assets), and the urban-rural divide

Identifying variation: Reform-induced changes in RF_c and EF_e
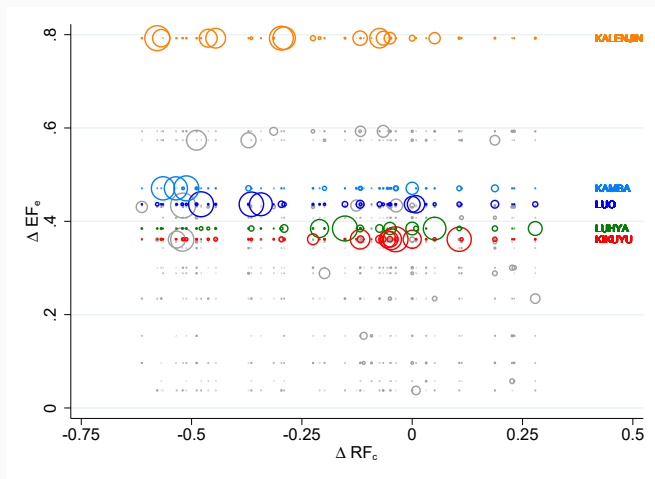
Notes: The figure shows a plot of ΔRF_c and ΔEF_e for each county-ethnic group combination. The size of the circles is proportional to the population of this combination.
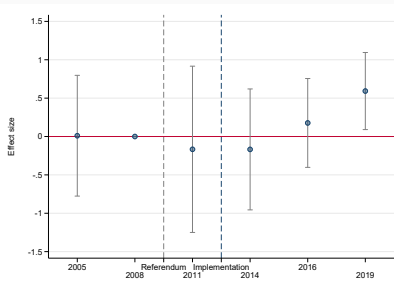
▸ Maps. , ▸ Decision to vote results.

Results

Main results fractionalization ΔRF_c & ΔEF_{ef}:

(a) Regional fractionalization   **(b)** Ethnic fragmentation
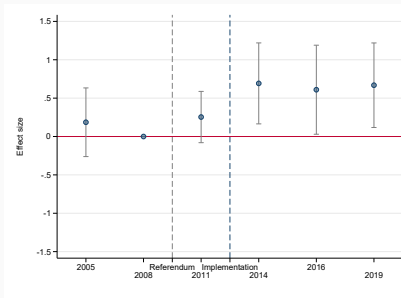
Notes: The figure plots the dynamic treatment effect of regional fractionalization (panel A) and ethnic fragmentation (panel B) on common voting. 95% confidence intervals are plotted as gray error bars and based on standard errors clustered at the ethnic-province and county level

Results robust to:

▸ All coethnic pairs , ▸ Alt. voting measures , ▸ Other boundary changes ,

▸ Alt. (in)dependent variables, sample perturbations , ▸ Standard errorr clustering .

Interpretation

Effect sizes (restricted sample)

- Typical change in $\Delta RF_c \approx -0.164$. Lowest post-reform coefficient in event study is about 0.61.
- Common voting among co-ethnics (or group vote fractionlization) *decreases* by 10 pp across respondent pairs, i.e., some are crossing ethnic lines more frequently.

Does this matter?

- Kenyatta avoids runoff in 2013 by 0.07 pp (8,000 votes)
- Overall less ethnic support than in 2007 (Ferree et al., 2014)
- Luo see decreases in ΔRF_c; 94% support Odinga/Musyoka
- Kamba see large decreases in ΔRF_c and "only" 63% support Odinga/Musyoka

Mechanism

Mechanism: Clientilism

Clientilist hypothesis: Devolution to more ethnically homogeneous units makes the probability of receiving local benefits less dependent on who controls the presidency.

Indirect tests:

- Groups who are likely to control the new local government will control clientilist goods and local public goods.
  - *Measure:* Locally dominant ethnic groups have a margin of victory $> 10\%$ in first gubernatorial race.

(a) Effect of ΔRF_c by local MoV
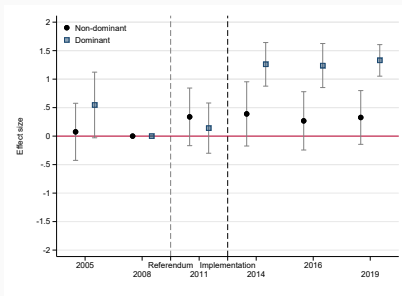
(b) Effect of ΔEF_e by local MoV
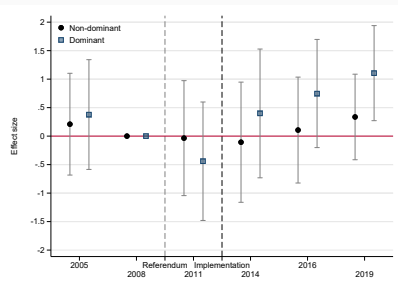
Notes: The figure plots the dynamic treatment effect of regional fractionalization (panel A) and ethnic fragmentation (panel B) as well as thier interactions with a dummy indicating groups that won the 2013 gubernatorial races in their county on common voting. 95% confidence intervals are plotted as gray error bars and based on standard errors clustered at the ethnic-province and county level

▸ Different MoV thresholds.

Final thoughts and take-aways

Until now "the evidence of formal institutional reforms mitigating negative ethnicity [has been] unconvincing" (Mueller, 2020)

- We fill this gap with the first quasi-experimental evidence on the effect of ethnofederal reforms on ethnic voting.

Policy implications:

- Gov'ts can mitigate the role of ethnicity in national politics. Changing subnational boundaries is relatively easy.
- Reducing diversity within administrative units is crucial for the success of ethnofederal reforms.
- Weak evidence that uniting coethnics in few units matters.

Thank you! `paul.schaudt@unibe.ch`

Supplement

British boundary drawing (from Burgess et al. 2015)
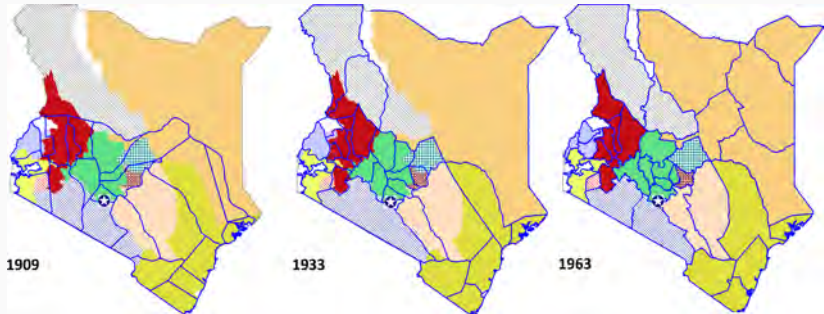
Notes: These figures illustrate the district ethnic composition, using the 1962 population census, and the evolution of district boundaries for selected years (1909, 1933, 1963) in Colonial Kenya. A district *d* is defined to be ethnic group e if $\geq$ 50% of the district's population is ethnic group *e*. Only three districts are without a single ethnic majority group: Nairobi, Mombasa and Trans Nzoia. Burgess et al. use the 41 districts of the 1963 delineation of boundaries as a baseline.

Parties, candidates and coalitions in Kenya

Big 4 groups:

- Kalenjin, Kamba, Kikuyu, and Luo

Presidential and vice-presidential candidates:

- 2002 election: Moi term-limited. Kibaki defeats Kenyatta.
- 2007 election: Kibaki narrowly defeats Odinga (and Musyoka) in a flawed election, leading to inter-group violence.
- 2010 unity government: Kibaki/Odinga.
- 2013 election: Kenyatta/Ruto defeats Odinga/Musyoka.
- 2017 election: Kenyatta/Ruto defeats Odinga-Musyoka, but Supreme Court nullifies the result. Odinga boycotts rerun.

‹ Return.

Afrobarometer coverage

(a) R3 (2005) **(b)** R4 (2008) **(c)** R5 (2011)

(d) R6 (2014) **(e)** R7 (2016) **(f)** R8 (2019)

33
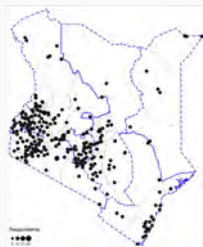
Ethnic party voting in Afrobarometer and exit polls

(a) Parties
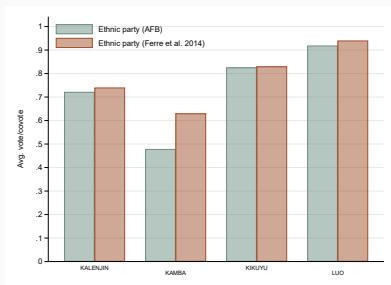
(b) Coalitions
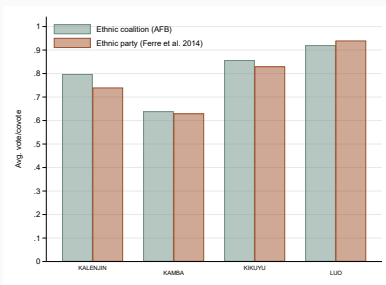
Notes: Panel A plots the share of respondents from the big four ethnic groups who intend to vote for the party with a coethnic presidential or vice-presidential candidate according to the Afrobarometer survey data (in cyan-green) and the share of voters from these groups who voted for the presidential ticket with coethnic presidential or vice-presidential candidate according to the exit polls by Ferree et al., 2014 (in light brown). Panel B replicates panel A but aggregates the political parties at the level of coalitions.

Go back

Common voting in the largest 10 ethnic groups

(a) Parties
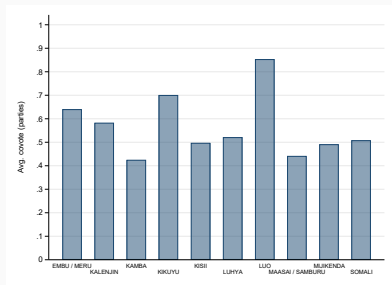
(b) Coalitions
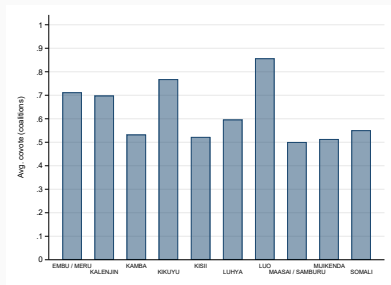
Notes: Panel A plots the average common voting among co-ethnic respondents for each of the largest 10 ethnic groups in Kenya, averaged across Afrobarometer survey rounds. Panel B replicates panel A but aggregates the political parties at the level of coalitions.

Common voting for ethnic parties in the big four ethnic groups

(a) Parties   **(b)** Coalitions
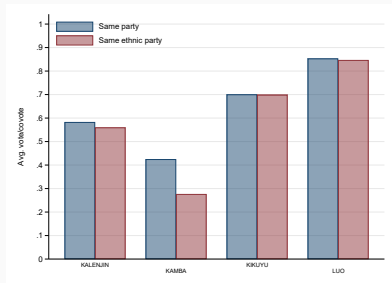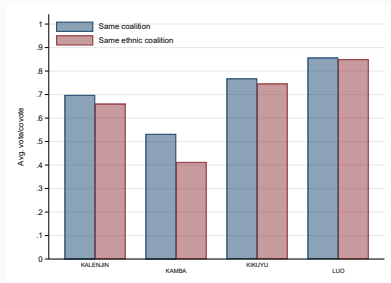
Notes: Panel A plots the average common voting among co-ethnic respondents (in blue) and the average common voting among co-ethnic respondents for the party led by a coethnic presidential or vice-presidential candidate (in red) for the big four ethnic groups. Panel B replicates panel A but aggregates the political parties at the level of coalitions.

Reform-induced changes in RF_c

(a) RF provinces
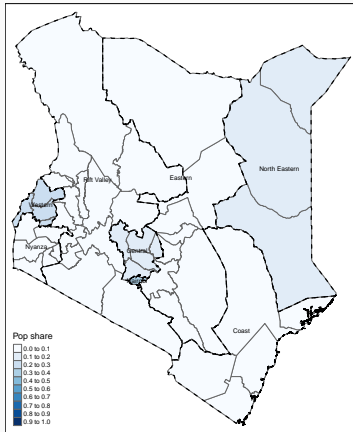
(b) RF counties
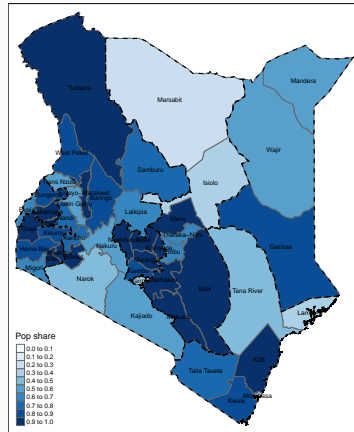
Notes: The figure plots the regional fractionalization based on the 1989 census and housing census across subnational units (panel A for provinces, panel b for counties).

Event study specification (II)

- Identifying variation comes from the changes in RF and EF that co-ethnic respondent pairs experience after reform.
- R4 in 2008 is baseline ($\beta_4 = 0$ and $\gamma_4 = 0$).
- β_t's and γ_t's capture the time-varying effects of the reform-induced changes in RF and EF on ethnic voting.

Two samples

- Full ($c = d \vee c \neq d$) and restricted ($c = d$).
- Restricted sample uses local variation (where voters have same local and national candidates) and makes sure that $\Delta RF_c = \Delta RF_c = \Delta RF_d$.

Identification assumptions

Parallel pre-trends:

- Unobserved time-varying confounds behave similarly in groups or counties that are treated differently by the border reform (i.e., in terms of ΔRF_c or ΔEF_e).

Unconfoundness of treatment:

- ΔRF_c and ΔEF_e are not proxying for some other county characteristic that changes as a result of the reform and is also correlated with voting patterns.

Voting intentions and willingness to reveal party preferences

(a) Effects of ΔRF_c
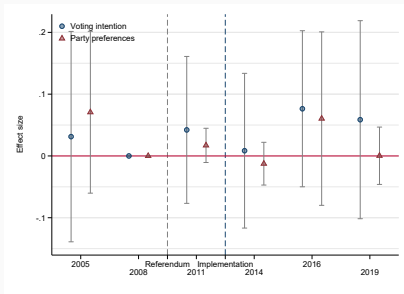
(b) Effects of ΔEF_e
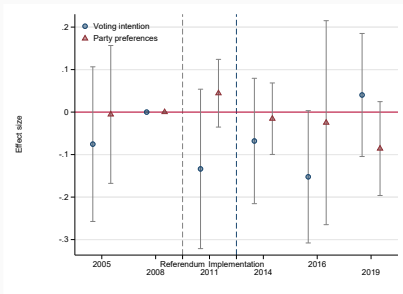
Notes: The figure shows event study coefficients of reform-induced changes in border alignment on turnout. Circles show results for whether an individual respondent indicates an intention to vote, and triangles whether they were willing to reveal the party's candidate they intent to vote for. 95% confidence intervals based on standard errors clustered at at the ethnic group and county level are plotted as gray error bars.

(a) Regional fractionalization
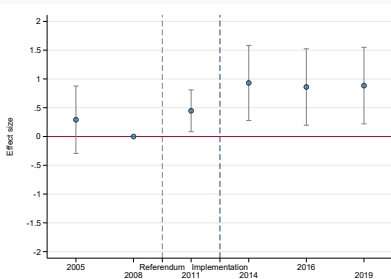
(b) Ethnic fragmentation
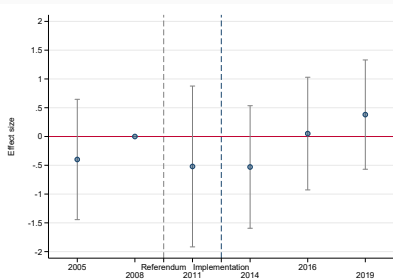
Notes: The figure plots the dynamic treatment effect of regional fractionalization (panel A) and ethnic fragmentation (panel B) on common voting. 95% confidence intervals are plotted as gray error bars and based on standard errors clustered at the ethnic-province and county level

Other boundary changes

Three coincident boundary changes:

- The number of electoral constituencies has been increased from 210 to 290 (and MPs have development funds).
- 175 elected local authorities were abolished and subsumed into county governments.
- 210 districts created by Daniel arap Moi and Mwai Kibaki were declared illegal by the High Court in September 2009

We compile data on all of these changes to compute the implied ΔRF and ΔEF. None of the alternative changes in regional fractionalization are associated with changes in common voting.

Other boundary changes: Results

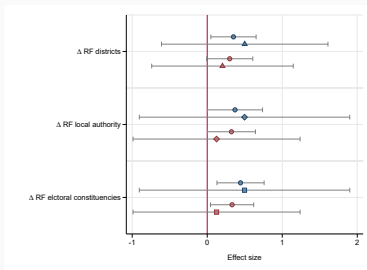**(a)** Alternative Δ *RF*
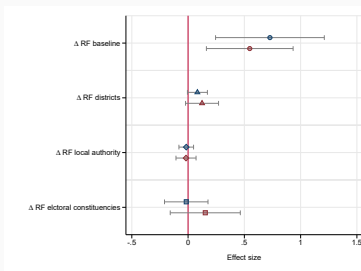
(b) Alternative Δ *EF*
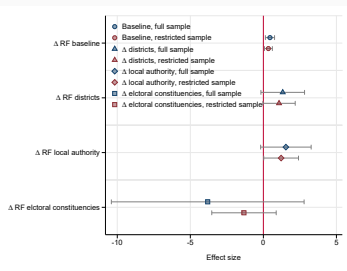
Notes: Panels A and B report the point estimates and 95% confidence intervals of eight different regressions. The estimates are based on our baseline DID specification, including the standard bilateral controls and excluding the interim period (as in ??). The first set of results labeled Δ*RF* baseline (panel A) and Δ*EF* baseline (panel B) replicate our standard specification for the full sample (blue circles) and the restricted sample (red circles). The six remaining point coefficients in both panels use the equivalent changes in regional fractionalization and ethnic fragmentation calculated on the other divisional changes discussed in this Online Appendix. The legend (shown in panel B, but applying to all panels) indicates the different type of divisional changes on which our Δ*RF* and Δ*RF* are based as well as the different samples. 95% confidence intervals based on two-way clustered standard errors at the province-ethnicity level (for each respondent of a given pair) are plotted as gray error bars.

43

Other boundary changes: Results horserace
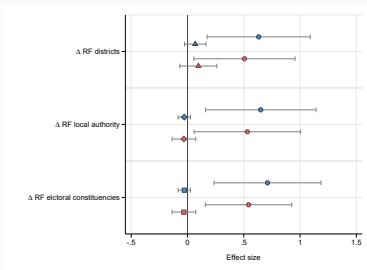
(a) Controlling for alt. Δ *RF*   **(b)** Controlling for alt. Δ *EF*


Notes: Panels A and B report the results of six regressions in which we employ the ΔRF's and ΔRF's based on the alternative divisional changes as additional control variables alongside our preferred measures. For each regressions, we report the estimates of our main measure (indicated by a circle) and the respective control (indicated by their respective sign and the label on the Y-axis). 95% confidence intervals based on two-way clustered standard errors at the province-ethnicity level (for each respondent of a given pair) are plotted as gray error bars.

Alt. voting measures

(a) Effect Δ *RF* × post   **(b)** Effect Δ *EF* × post
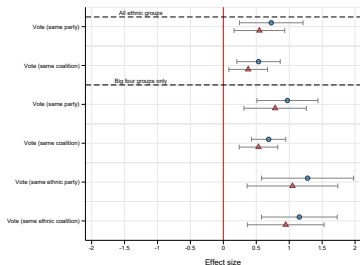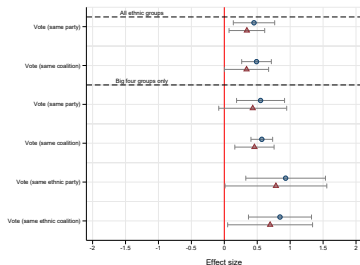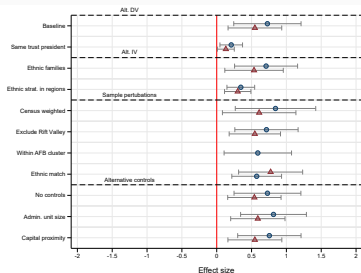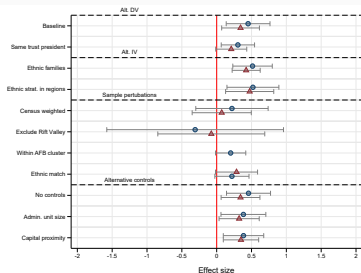

Notes: The figure shows difference-in-differences coefficients of the effect of reform-induced changes in border alignment on ethnic voting for two different samples. Circles represent estimates based on the full sample of coethnic respondents, and triangles on the restricted (within-county) sample. Panel A shows estimates for regional fractionalization, and panel B shows estimates for ethnic fragmentation. 95% confidence intervals based on two-way clustered standard errors at the province-ethnicity level (for each respondent of a given pair) are plotted as gray error bars.

Alt. (in)dependent variables, sample perturbations

(a) Effect Δ RF $\times$ post

(b) Effect Δ EF $\times$ post

Notes: The figure shows difference-in-differences coefficients of the effect of reform-induced changes in border alignment on ethnic voting for two different samples. Circles represent estimates based on the full sample of coethnic respondents, and triangles on the restricted (within-county) sample. Panel A shows estimates for regional fractionalization, and panel B shows estimates for ethnic fragmentation. 95% confidence intervals based on two-way clustered standard errors at the province-ethnicity level (for each respondent of a given pair) are plotted as gray error bars.

Alternative clustering of the standard errors
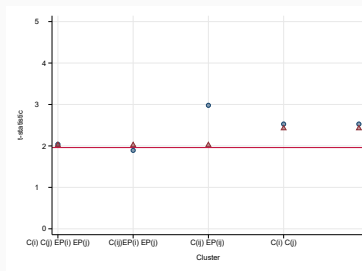
**(a)** *t*-statistics for Δ *RF*　　　　　**(b)** *t*-statistics for Δ *EF*
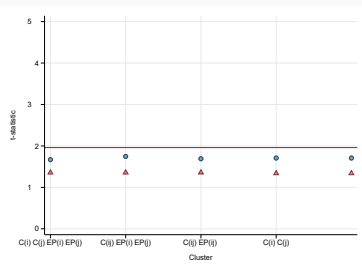
Notes: The figure reports estimated *t*-statistics testing the null hypotheses that the effects of regional fractionalization (ΔRF_c, in panel A) and ethnic fragmentation (ΔEF_e, in panel B) are zero using alternative forms of multi-way clustering of the standard errors. The underlying specification is the difference-in-differences version of the main specification (i.e., the top specification in **??**). Circles represent estimates based on the full sample of coethnic respondents, and triangles on the restricted (within-county) sample. $C(i)$ and $C(j)$ refer to the counties of respondents i and j. $C(ij)$ refers to the county pair where respondents i and j live. $EP(i)$ and $EP(j)$ refer to the ethnic-province combinations of respondents i and j. As an example, standard errors are clustered at the levels of each of the respondents' county and the levels of each of the respondents' ethnic-province combination in the first (left-most) robustness test.

Effect symmetry

(a) Decreasing *RF*
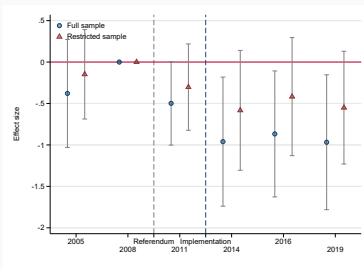
(b) Increasing *RF*
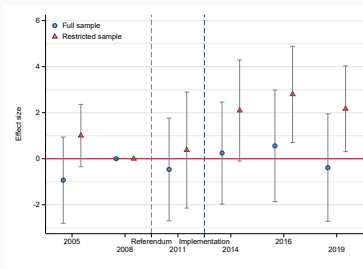
Notes: The figure shows event study coefficients of the effect of reform-induced changes in border alignment on ethnic voting split by whether regional fractionalization increases or decreases. Circles represent estimates based on the full sample of coethnic respondents, and triangles on the restricted (within-county) sample. Panel A shows estimates for reductions in regional fractionalization, and panel B shows estimates for increases in regional fractionalization. Note that the negative ΔRF_c values in panel A are multiplied by -1 to report the effect of reductions in local diversity. All specifications include county pair-by-ethnicity and survey round fixed effects as well as pair-level controls. 95% confidence intervals based on two-way clustered standard errors at the province-ethnicity level (for each respondent of a given pair) are plotted as gray error bars.
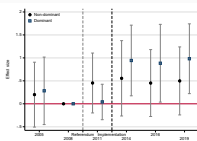
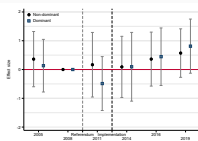# Robustness local control: MoV thresholds

(a) Effect $RF_c \times$ MoV > 0
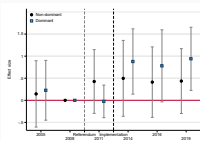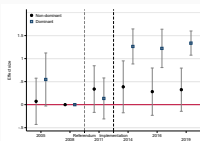

(b) Effect $EF_c \times$ MoV > 0
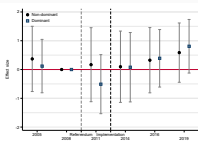
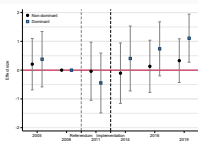**(c)** Effect $RF_c \times$ MoV > 5

(d) Effect $EF_c \times$ MoV > 5

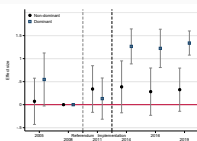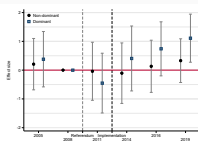**(e)** Effect $RF_c \times$ MoV > 15

(f) Effect $EF_c \times$ MoV > 15

(g) Effect $RF_c \times$ MoV > 20

(h) Effect $EF_c \times$ MoV > 20