

The Anatomy of Voting, Up and Down the Ticket

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Motivation: Partisan loyalty all the way down the ballot?

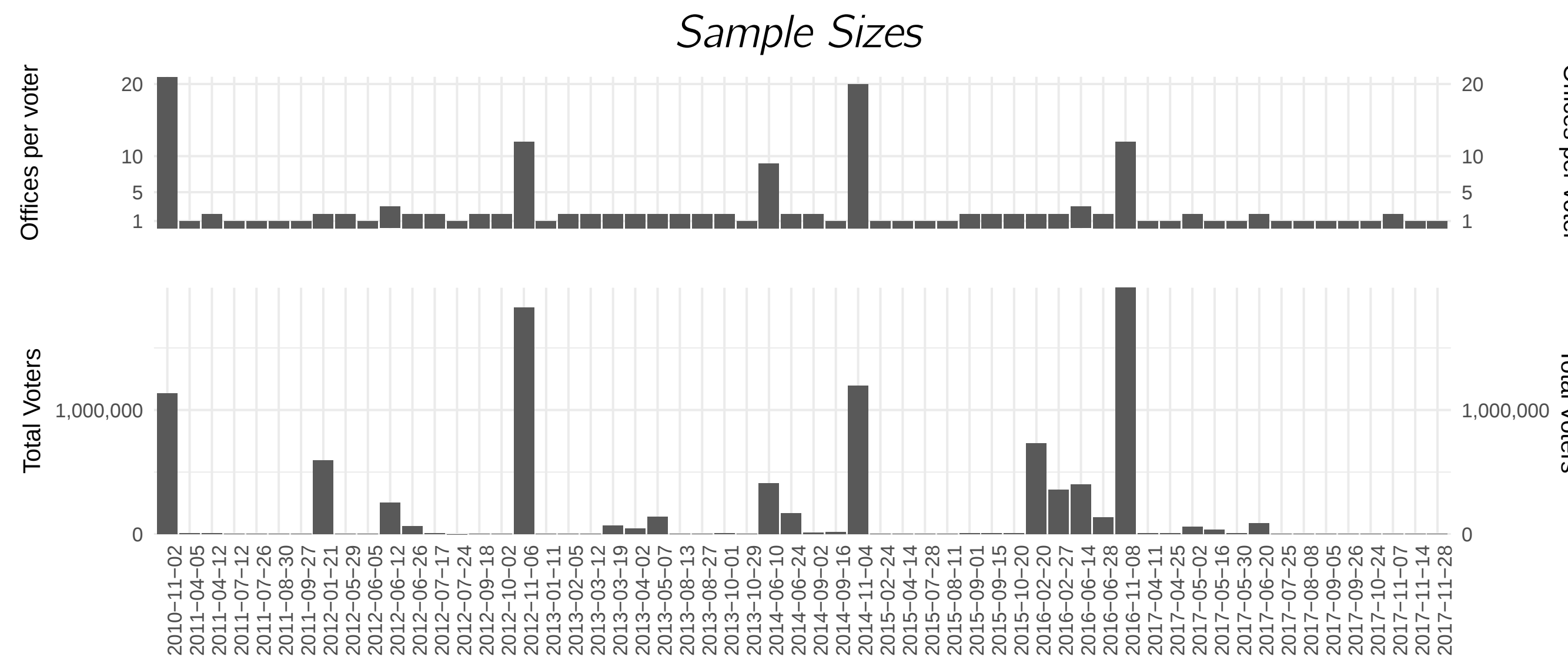
Are *national* and *local* electoral politics contested on the same partisan dimension?

New Data: Ballot Image Logs from South Carolina

What are ballot image logs and how are they different from other datasets?

	Ballot Image Logs	Voter Files	Precinct Returns	Surveys
Individual-level?	✓	✓		✓
Vote choice observed?	✓		✓	Self-report
Down-ballot races recorded?	✓		✓	
Population-based (no sampling error)?	✓	✓	✓	
Linkable to precinct-level demographics?	✓	✓	✓	
Linkable to commercial data?		✓		✓
National Availability?		✓	Imperfect	

www.scvotes.org/election-audits-south-carolina makes public all voters' ballot images from all state-involved elections since the 2010 General.



Example Log of Three Voters (Awendaw Precinct, Charleston)

VOTER A		
10 Hillary Rodham Clinton	18 Thomas Dixon	27 Dimitri Cherny
53 Peter J Tecklenburg	61 Andrew C Smith.	104 No
107 No		
VOTER B		
14 Donald J Trump	22 Tim Scott	30 Mark Sanford
35 Stephen Goldfinch	38 Lee Hewitt	41 Scarlett Wilson
44 Al Cannon	47 Julie J Armstrong	50 Rae H Wooten
54 Elizabeth Moffly	59 Mary E Tinkler.	64 John H Smoak
68 Tony E Lewis	71 Chris Collins	74 Louis L Smith
78 Priscilla Jeffery	80 Michael Miller	84 Anita Renee Alston-Gore
88 Juanita M Middleton	89 Samuel N Robinson	104 No
107 No		
VOTER C		
1 Democratic	10 Hillary Rodham Clinton	18 Thomas Dixon
27 Dimitri Cherny	44 Al Cannon	47 Julie J Armstrong
53 Peter J Tecklenburg	58 Mary Tinkler	84 Anita Renee Alston-Gore
86 Thomas L Colleton Jr	87 Erma J Harrell	103 Yes
106 Yes		

Data Processing

Encode, for each voter's vote

-1: Democrat candidate / Democratic party ticket / No on referendum

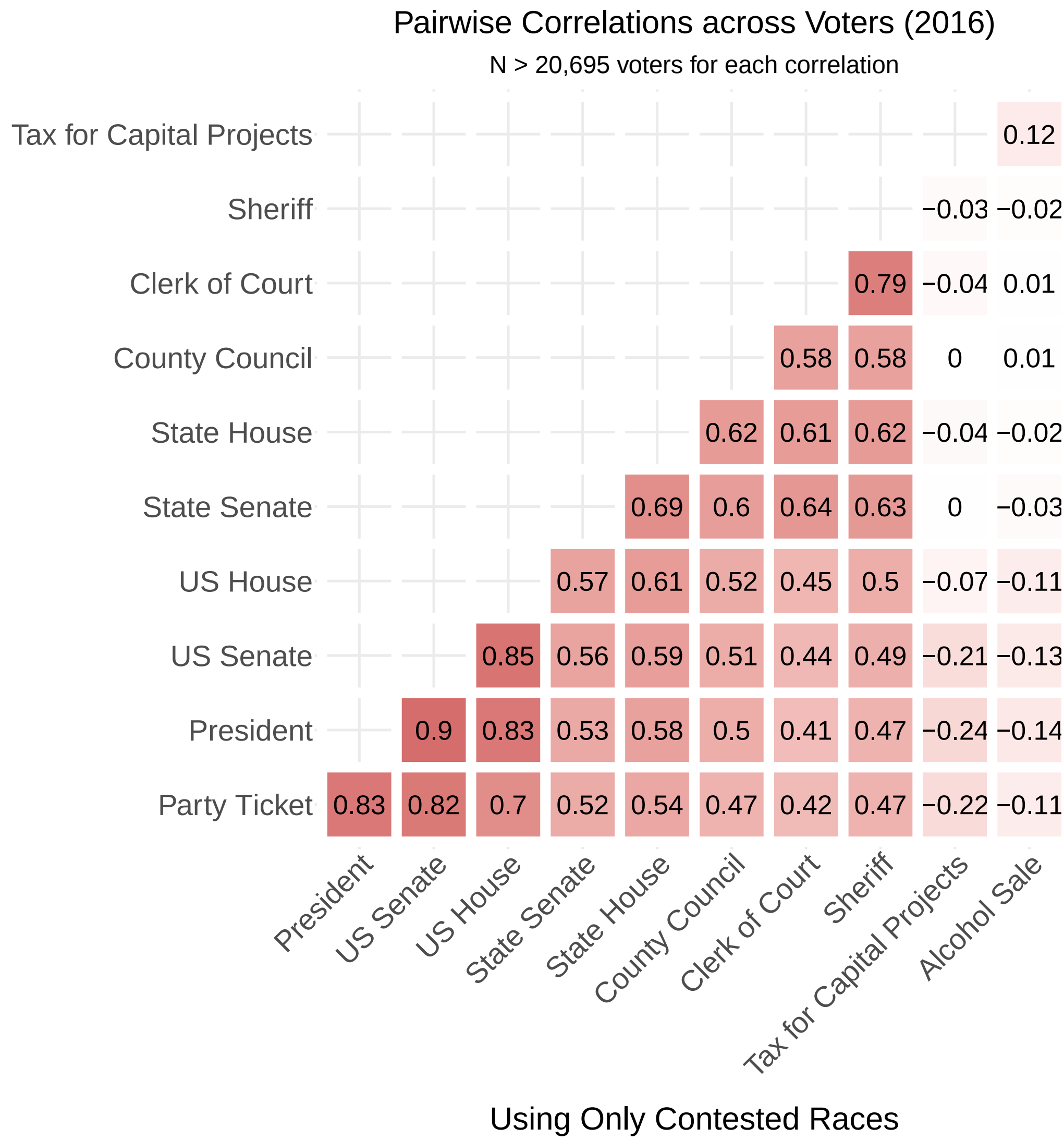
0: Abstain / Write-In / No major party ticket selected

+1: Republican candidate / Republican party ticket / Yes on referendum

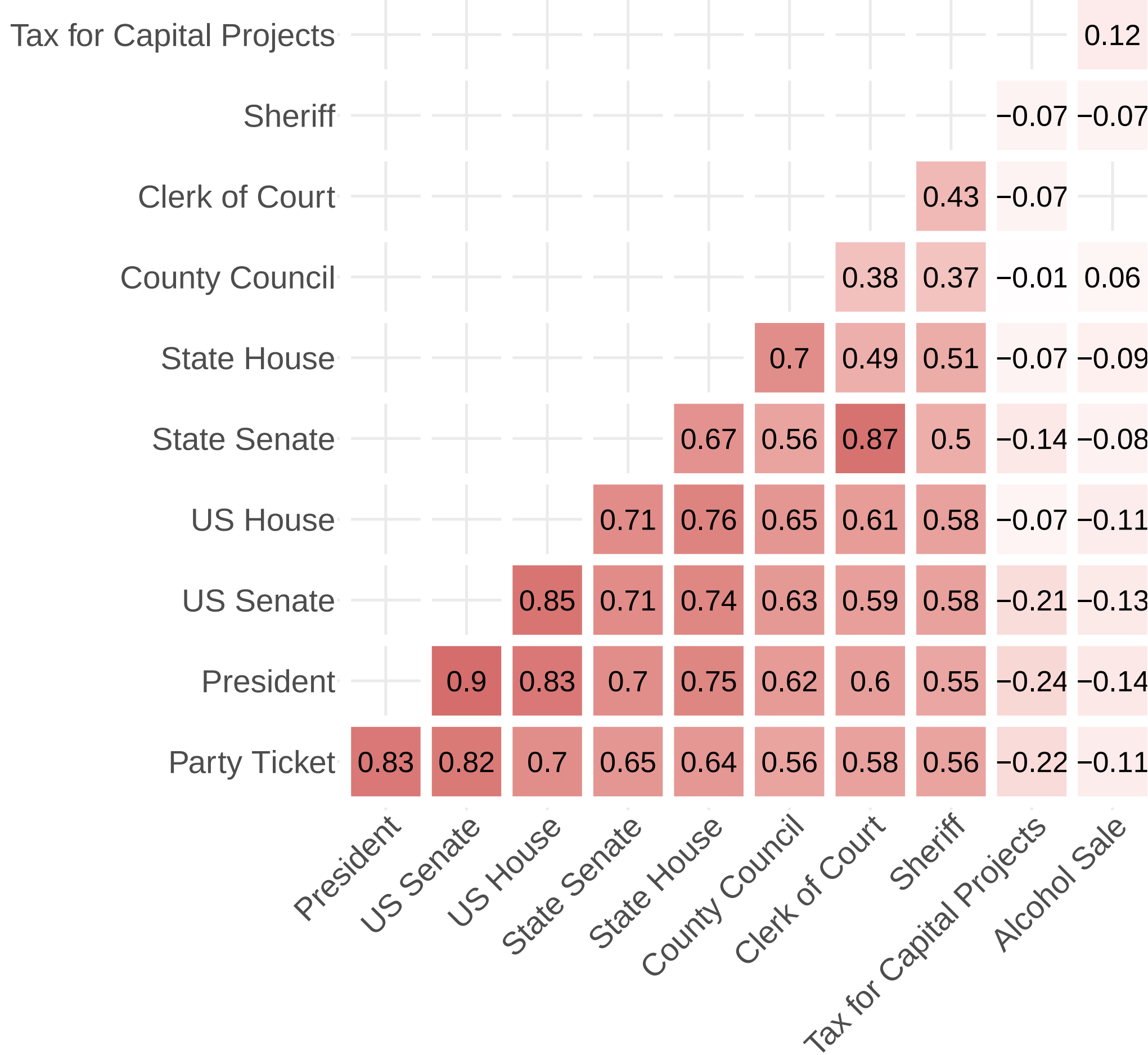
NA: Office not on ballot

Moderate to High Partisan Correlation among Candidate Voting, Weak Correlation with Referendum

Votes among federal-level offices correlated 0.7 - 0.9. Correlation among votes for state and local offices are only around 0.4 - 0.6, even smaller with local referenda.



Using Only Contested Races



Three Principal Components (PCA)

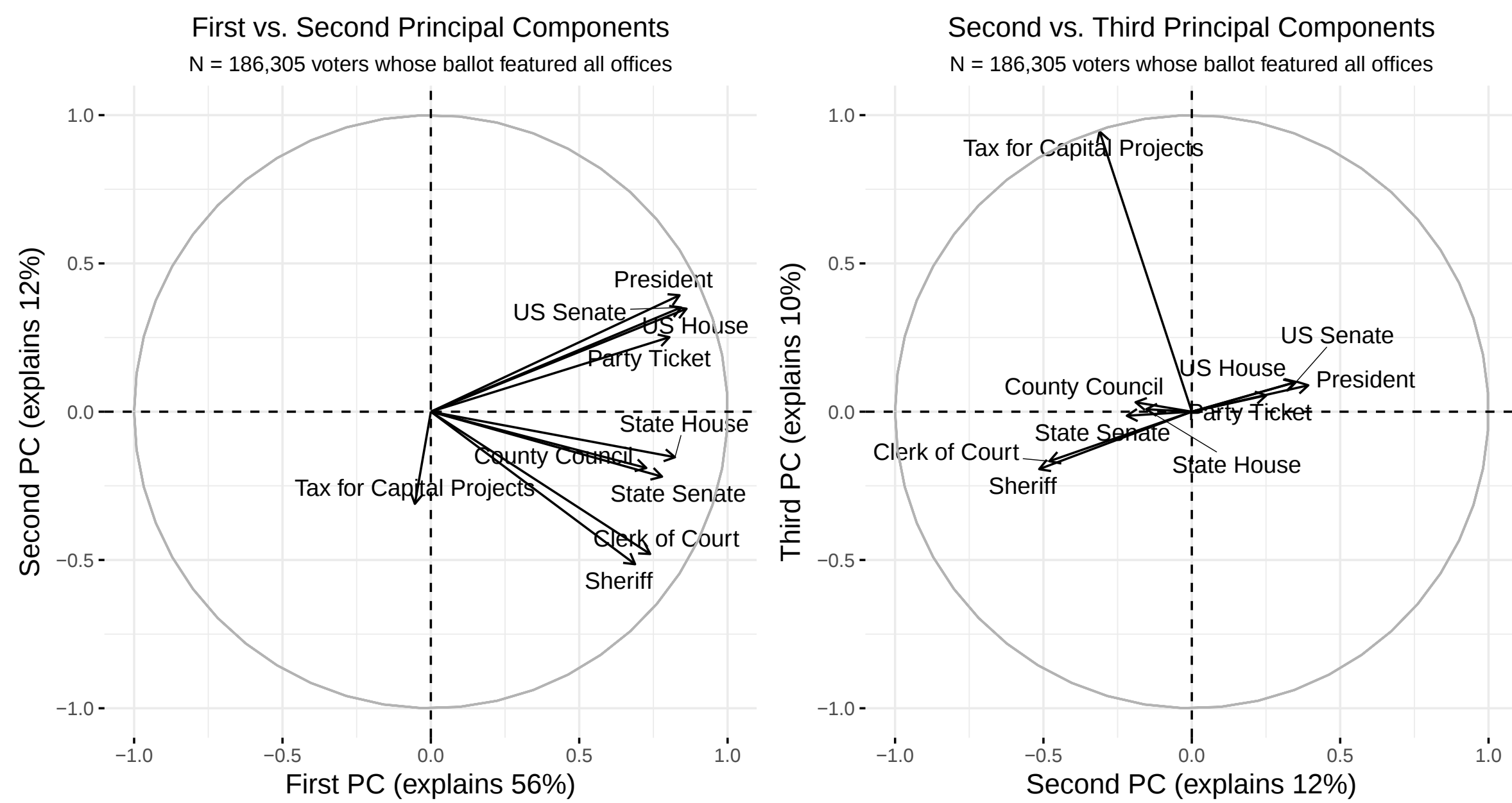
With major offices and a class of referendums, **three** linear combinations of choice profiles explain around 80 percent of the variance (PCA via singular value decomposition). They distinguish, and roughly mirror

First PC: A left-right dimension,

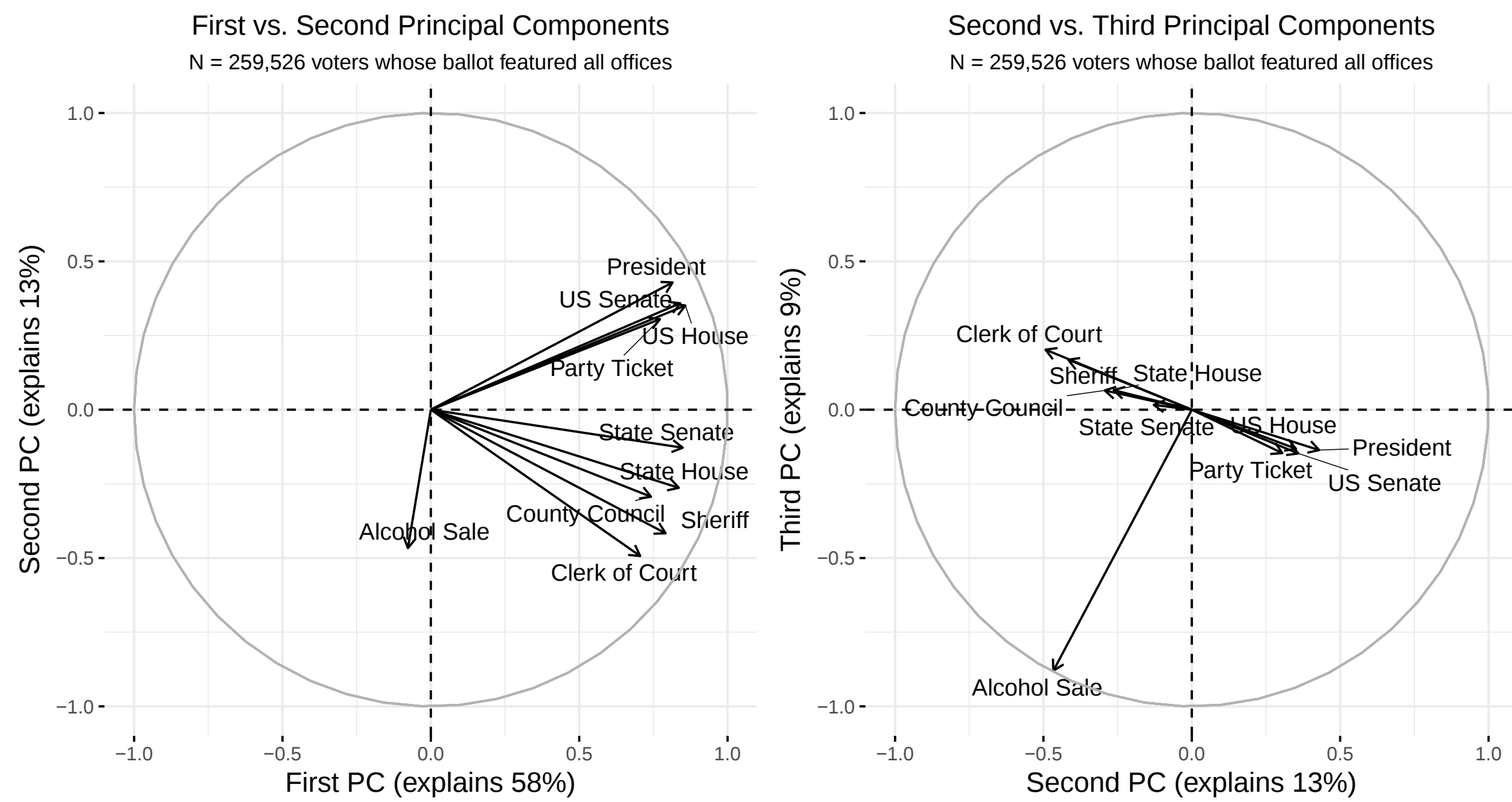
Second PC: A federal - subnational dimension, and

Third PC: A dimension specific to referendum.

Counties with a Sales Tax for Infrastructure Projects Referendum



Counties with an Alcohol Sales Referendum



Districts with Both (Orangeburg County)

