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Who loses in direct democracy?

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ABSTRACT

We examine the success of California's black, Latino, and Asian voters in ballot proposition elections, showing that minority voters lose more often than whites across all ballot propositions, and that this disadvantage is not limited to a small subset of racially-targeted propositions. Minority voters are 2–5 percentage points less likely than otherwise-similar white voters to be on the winning side of ballot propositions. These differences persist after excluding racially-targeted propositions because minority voters are more likely to lose on several issues including elections, the environment, health, housing, taxes, and transportation. We demonstrate that race is more important than class in describing which voters lose.

1. Minorities in direct democracy

As American states and localities have increasingly turned to ballot propositions as a means of policymaking, researchers have examined whether proposition elections consistently disadvantage minority groups. In the absence of a representative legislature acting as a buffer between political entrepreneurs and policy outcomes, does direct democracy systematically disfavor ethnoracial minorities?

Although most related research focuses on propositions that directly target minorities, we argue that this focus may obscure entire classes of elections in which minority voters face persistent disadvantage. Thus, we place particular emphasis on propositions that do not directly target racial and ethnic minorities. Contrary to previous findings, we show that minority voters are modestly more likely than whites to lose in direct democracy, both across all propositions and within the set that do not directly target minorities. In issues like transportation and health, as well as the administration of government and elections, racial minorities tend to lose.

The Founders shared concern for persistent political disadvantage in the context of "pure democracy", and indeed, argued that republican government was the means through which minority group interests would be represented in policy outcomes (Madison, [1787] 1888). Early political scientists also shared this research agenda. Lowell (1913), Barnett (1915), and Key and Crouch (1939) all note the potential for "a fanatical popular majority" to implement unchecked policies that harm minority interests (Lowell, 1913, p. 98). Foreshadowing some 21st century analysts, Key and Crouch (1939) specifically reject that direct democracy had harmed the representation of minority interests in California.

Although we advocate examining the entire universe of propositions, scholars in this field tend to examine a subset of ballot propositions that specifically target minority rights. This tendency is sensible, since these propositions often present

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the most obvious threats and engender the most vocal minority reactions. In California politics, scholars have examined racial groups' voters' support for minority-targeted propositions, especially Propositions 63, 187, 209, and 227 (Tolbert and Hero, 1996, 2001; Tolbert and Grummel, 2003; Campbell et al., 2006), and the partisan effects thereof (Bowler et al., 2006). A related line of research focuses on classes of minority-targeted propositions across states, including official English policies (Schildkraut, 2001) and policies targeting gays and lesbians (Gamble, 1997; Donovan and Bowler, 1998; Haider-Markel et al., 2007).

Some even argue that direct democracy itself is predicated on reducing the representation of minority interests in policy outcomes. Drawing comparisons to the early twentieth century, Tolbert (2003, p. 474) argues that recent use of direct democracy "may be partially understood as constraining state legislatures' perceived overresponsiveness to ethnic and racial minorities". Similarly, mentioning three minority-targeted issue areas, Lupia and Matsusaka (2004, p. 476) note that direct democracy is often used to enact changes that "cut across existing political cleavages (e.g., bilingual education), ... or that are considered too hot to handle (e.g., immigration policy and gay marriage)".

However, focusing on propositions that target minority interests may miss important types of elections in which minority voters fare poorly. Recent work, for example, considers the racial patterns of success in federal candidate, gubernatorial, and mayoral elections (Hajnal, 2009; Yoshinaka and Grose, 2010). By considering a broad class of elections, Hajnal et al. (2002) offer a compelling critique of the position that ethnic and racial minorities lose more in direct democracy. They argue that assessing whether propositions disadvantage minority voters requires one to evaluate all types of propositions, rather than limiting analysis to a narrow range of racially-targeted propositions. To this end, Hajnal et al. test the claim that minority voters are more likely to be on the losing side of direct democracy using data on 51 of California's ballot propositions covering a wide range of topics. They argue that while minority voters are on the losing side of the small set of racially-targeted propositions, they are nearly as likely to be on the winning side as white voters across all propositions.

We start with a related, but not previously posed, question: when racially-targeted propositions are excluded, do minority voters fare as well as white voters? We find that minority voters are more likely to lose, even among propositions that do not target them. If this is so, why have previous analyses failed to find differences overall? We reconcile the apparent contradiction by demonstrating that previous results are sensitive to the treatment of missing data. In research design, we agree with Hajnal et al. that focusing narrowly on minority-targeted propositions leads to a limited and potentially biased assessment of direct democracy. Whether direct democracy contributes through such propositions to infringement upon the civil rights of racial and ethnic minorities is undoubtedly an important question. However, exploring this limited subset of propositions only scratches the surface of the electoral fortunes of minority voters in direct democracy; most ballot propositions do not directly target minorities. We also concur in the importance and validity of studying California. In addition to having 12% of the US population and a GDP roughly the size of Italy's, California is home to more than a quarter of all Latinos and a third of all Asians in the United States. The recent acceleration of Latino and Asian immigration to new immigrant-receiving states, especially in the South, also means that past ethnoracial voting patterns in California may portend the futures of other parts of the country (Hero, 2010; Odem and Lacy, 2009). The experience of minorities in California forms a substantial part of minority experience in the United States.

There are compelling reasons to be concerned about minority voters' fortunes on initiatives and referenda that do not directly target them. For example, governance and fiscal policy, rather than directly racialized policies, dominated the direct democracy agenda during both the first two decades and the last two decades of the twentieth century (Tolbert, 2003). Below, we show that similar issue areas, specifically elections, administration, and tax policy, find certain groups of voters less likely to be on the winning side than white voters. Our analysis also shows consistent minority voter disadvantage in other issue areas. Given the variety of important issues settled by ballot propositions, in addition to the frequent targeting of minorities through direct democracy, a finding of even modest differences across racial groups may be cause for concern.

Indeed, we do find differences that are robust to covariate adjustment, the inclusion of minority-targeted propositions, and an out-of-sample test using additional data. However, adjusted estimates are not robust to the restrictive and likely invalid assumptions of listwise deletion – the dropping of respondents who fail to answer at least one question in the dataset. Thus, we highlight the importance of the treatment of missing data, showing how relaxing an unneeded assumption allows us to recover minority disadvantages. We further show that income and education stratification does not explain minority disadvantage as well as race. For example, the poorest white voters, those earning under $20,000 per year, are more likely to be on the winning side than all income groups of black voters, even those earning more than $100,000 per year.

The next section provides an overview of our approach, including the use of multiple imputation to recover data from the more than 86,000 observations that listwise deletion would omit from these analyses. We present our findings from the full 1978–2000 dataset used by Hajnal, et al., and from a 2002–2004 dataset representing 25% more data, in terms of both ballot propositions and individual responses. Lastly, we discuss the broader substantive implications of persistent differences across groups, draw out the methodological implications of the robustness and fragility of estimation in the face of missing data, and suggest specific directions for further inquiry.

2. Data and methods

Our set of *Los Angeles Times* exit polls asked Californians how they cast their ballots in 65 propositions between 1978 and 2004. These propositions decided issues ranging from racially-targeted policies such as bilingual education to questions on

issues like housing, the environment, and transportation. We observe data for 243,920 votes, for an average of 3753 interviews conducted per proposition. Interviews were conducted by a variety of firms, sampling methods employed precinct turnout histories, and adjustments were made to account for actual returns, demographic underrepresentation, and absentee voters, and the confidential, self-administered questionnaires were offered in a variety of languages. For further details, see, for example, Los Angeles Times (1978, 1980, 1998, 2000).

These data reveal that racial minorities are more likely to be on the losing side of ballot propositions that do not target minorities, as well as in the entire set of proposition elections. In Section 3.1, we present unadjusted associations showing these disadvantages. In Section 3.2, we show that these disadvantages remain after conditioning on several covariates. Here, we regress electoral success on race, age, region of the state, levels of income and education, political ideology, partisanship, and the proposition-specific margin of victory. Summary statistics for these measures are available in a Supplementary appendix table.

Like virtually all survey data, these data include missing cells. Because many respondents have at least one missing datum, how we deal with this missingness has consequences for substantive inferences about minority voters' performance in direct democracy. Through the default procedure of listwise deletion, Hajnal et al. ignore more than 76,000 observations, about 40% of the 1978–2000 data. However, only about 9% of the cells in the dataset are missing. Similarly, only about 7% of the cells are missing in our additional 14 propositions from 2002 to 2004, but more than 10,000 observations (22%) would be lost by listwise deletion. Put another way, more than three-quarters of the cells ignored by listwise deletion are actually observed.

Thus, we adopt two techniques for addressing the missingness, listwise deletion and multiple imputation, and compare predicted probabilities of winning for each of the four racial groups of voters under these two treatments of these missing data.[2] Multiple imputation improves our inferences by fully exploiting the considerable information available in this dataset that is ignored by listwise deletion. A relatively small number of missing cells spread across many observations makes these analyses perfect candidates for multiple imputation, a procedure that yields valid inference with considerably less restrictive assumptions than listwise deletion. Estimates from multiple completed datasets like these are becoming increasingly standard in political science.[3]

We first confirm that a few imputations can be expected to provide valid inferences in this case. Following Little and Rubin (2002), we estimate the fraction of missing information about our four primary quantities of interest, the probabilities of being on the winning side for a voter in each of the four racial groups. Missing information is least important for white voters (6%), moderately for black and Latino voters (18% and 14%), and most for Asian voters (38%). Indeed, a handful of imputations can create nearly nominal coverage for the levels of missing information we encounter (Rubin and Schenker, 1986). Thus, evidence suggests that estimates of the probability of being on the winning side derived from multiple imputation are superior to those following listwise deletion. This appears especially true for the racial minority voters.

Multiple imputation allows us to recover the missing information, increase our datasets by more than 86,000 observations, and arrive at estimates of our quantities of interest that have less variance. These estimates and their uncertainties are valid under less restrictive assumptions than those made by listwise deletion. In particular, multiple imputation is superior to listwise deletion when the missing data are "missing at random" (MAR) rather than "missing completely at random" (MCAR) (Little and Rubin, 2002). The MCAR assumption requires that missingness have no relationship to either observed or missing data values. This strong assumption is likely to fail. On the other hand, the less restrictive MAR assumption allows missingness to be related to observed data values. In substantive terms, if minority voters are less likely to respond to *any* question in the survey, then their votes are more likely to be ignored under listwise deletion. If the missing values then correlate with any observed values, multiple imputation yields superior inferences. Generally, if nonresponders differ from responders, estimates under listwise deletion will be biased, inferences inaccurate, and multiple imputation most warranted. If the likelihood of answering all questions and the true values of unanswered questions were the same across all races, listwise deletion would pose few problems, but multiply imputing the missing values would still produce more efficient finite-sample estimates.

In this case, there is good reason to believe that the missing data are not MCAR. In the 1978–2000 data, first, one of the four racially-targeted propositions in the *Los Angeles Times* dataset, Proposition 209, is completely disregarded due to the absence of any data on respondents' regions of residence. Second, all data on two housing questions (Propositions 8 and 10) is also completely disregarded due to at least one missing cell in every observation. Third, we observe that 45.0% of black, Latino, and Asian voters had missing data, as compared to 46.5% of whites. Moreover, across all propositions, losers are more

[2] Under both treatments, we calculate the predicted probabilities by simulating multivariate normal coefficients for each covariate. Under listwise deletion, we simulate 5000 coefficients for the estimates using the estimated variance–covariance matrix. Under multiple imputation, we first generate five completed datasets as suggested in Rubin (1978), King et al. (2001), Little and Rubin (2002), and elsewhere, using the procedure described in King et al. (2001) and Honaker and King (2010). We combine the completed datasets to produce composite estimates and coefficient variance measures using the combining rules of Rubin (1987). For coefficient estimates, the simulations center around the mean of the estimates from each completed dataset. Their spread reflects combined variances that are weighted averages of estimate variances between and within completed datasets. Finally, we compare the predicted probability of winning of a minority voter to the predicted probability of winning of an otherwise identical white voter. We fix covariates other than race to the following median values: age between 30 and 45, medium income, some college education, moderate political ideology, and politically independent. Following Hajnal et al. (2002), we set region of residence to the Central Valley for the 1978–2000 data. In the 2002–2004 data, we use the modal region, Los Angeles county.

[3] See Mutz (2002), Ghobarah et al. (2003), Wellhofer (2003), Barabas (2004), Stone (2004), Gordon and Hafer (2005), Carson et al. (2007), and Tsai (2007) for a few examples since 2001 spanning American politics, comparative politics, international conflict, international finance, and political psychology.

likely to have missing data than winners (51.1% versus 48.3%). Losers are more likely to have missing data within all four racial categories as well. Thus, multiple imputation allows us to use covariate information to correct for this nonresponse bias and attain better estimates for the differing fortunes of racial groups' voters in direct democracy.

Strictly speaking, our units may violate the independence assumption of the logistic regression model. Several propositions can be on the same ballot, so the same individual may appear as more than one unit in the dataset. This arrangement could produce correlation among the set of error terms of the responses gleaned from each individual. However, no substantive differences emerge in our results when robust standard errors are used to correct for non-independence.

We note that multiple imputation is theoretically appropriate for the missingness we encounter here, as we impute values for demographics that have been omitted, but that can sensibly be understood to have a value behind the missingness (income, education, age, etc.). In a different setting, such as a knowledge-elicting survey question like "who was president during the Civil War?", replacing "Don't Know" responses may mask actual respondent uncertainty about a fact or complex issue. Survey nonresponse is known to come from many psychological as well as technical sources (Berinsky, 2002; Brehm, 1993; Fowler, 1995).

We recommend that authors explicitly describe their assumptions regarding missingness, employ multiple imputation if MAR is more plausible than MCAR, and report both the number of cases used in analyses and the number of cases excluded. We see no reason here to make the more restrictive MCAR assumption inherent in listwise deletion.

3. Minority disadvantage in California propositions

Research on race and direct democracy has focused on the ability of publics to directly approve legislation that infringes on the rights of racial minorities. This focus is natural, as minority voters were on average more than 10 percentage points less likely than white voters to be on the winning side of these propositions during 1978–2000. In this vein, Hajnal et al. argue that only on this set of racially-targeted propositions do black, Latino, and Asian voters all fare significantly worse than whites. However, we show below that minority voters are somewhat more likely than whites to be on the losing side when these unusual minority-targeted propositions are excluded.

This section shows four types of results: marginal associations (unadjusted for background covariates), and conditional associations (adjusted for background covariates), under both listwise deletion and multiple imputation. In the marginal associations, both techniques estimate that voters from the three minority groups are one to five percentage points less likely than white voters to be on the winning side of ballot propositions. These disadvantages persist in the conditional associations, but *only* under the less restrictive assumptions of multiple imputation. These disadvantages remain in the later 2002–2004 sample.

3.1. Marginal associations

We first show that minorities are less likely to be on the winning side overall in proposition elections. We present raw available case data in Fig. 1, with the left side displaying estimates from the non-minority targeted propositions, and the right side showing all propositions.[4] Under listwise deletion, black and Asian voters are about 3 percentage points less likely to be on the winning side than white voters. The point estimate for Latino voters suggests a 1 percentage point disadvantage.

Examining the marginal results under multiple imputation yields similar conclusions; no substantive interpretation changes across analyses contained in the left side of Fig. 1. Estimates for each racial group's voters still suggest minority disadvantage, though the 95% confidence interval for Latino voters just includes zero. Estimates from multiple imputation suggest slightly smaller but still significant disadvantages for black and Asian voters. Under either set of assumptions and missingness procedures, racial minority voters appear disadvantaged overall in California's non-minority targeted propositions.

When we add in propositions on racially-targeted questions like affirmative action or official English, blacks, Latinos, and Asians remain more likely to be on the losing side under either treatment of the missing data. Fig. 1's right side shows how each group's disadvantage grows, and the importance of racially-targeted questions for Latinos is evident. All three groups of minority voters show statistically significant probabilities of being on the winning side that are 4 to 5 percentage points less than that of white voters. Although voters from each racial group are more likely to be on the winning side than not, white voters are significantly more likely than minority voters to win.

In sum, under either set of assumptions and missingness procedures, black, Latino, and Asian voters appear disadvantaged overall in California's direct democracy. When analysis leaves out the covariate information in the dataset, little difference exists between estimates and inferences under the MCAR and MAR assumptions. If anything, the multiple imputation estimates suggest a slightly smaller disadvantage for minority voters, by an average of about 0.6 percentage points, or just over 10% of the estimated disadvantage.

To check the robustness of these results to assumptions about the representativeness of the sample, we also estimate the marginal probability of being on the winning side in the raw data using the available population weights. The mean weights

[4] Estimates are presented graphically throughout this paper (Kastellec and Leoni, 2007). Numerical summaries for all figures are available in Supplementary tables.

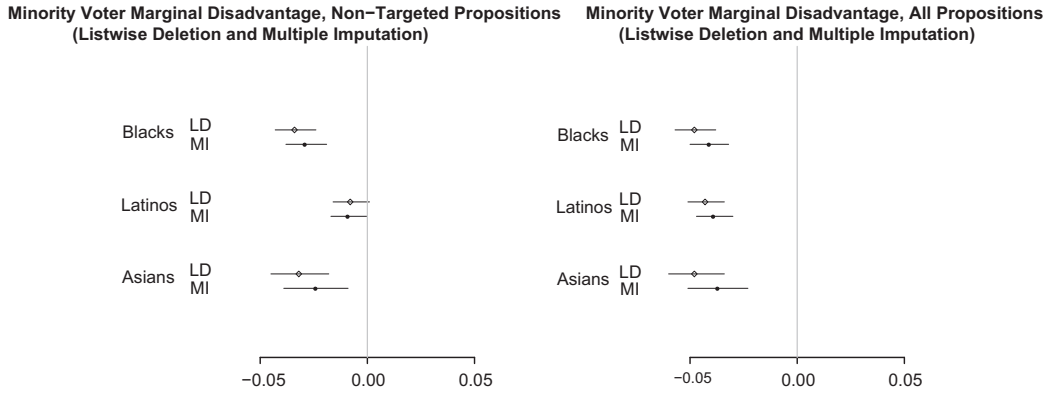

Fig. 1. Marginal probabilities of being on the winning side under listwise deletion (LD) and multiple imputation (MI), only non-minority targeted propositions (left) and all propositions (right). Points represent estimates, segments represent 95% confidence intervals. Negative values represent percentage disadvantage from white voter probability of winning.

for the four racial groups are similar, suggesting that employing the weights should not create exaggerated values for observations from any particular race. One complication arises: some 17,615 observations have missing weights. Roughly similar proportions of white, black, Latino, and Asian voters (8%, 7%, 12%, and 11%, respectively) have missing weights. Though this analysis thus requires its own MCAR assumption for unbiasedness, we proceed since we consider this simply a robustness check.

The survey-weighted estimates of the overall probability of being on the winning side are nearly equal to the raw unweighted estimates. The estimates for white, black, Latino, and Asian voters are 0.608, 0.553, 0.562, and 0.551, respectively. The differences in these estimates and the 95% confidence intervals around those differences look very similar to the right side of Fig. 1. The differences all suggest minority voters are 5–6 percentage points less likely than white voters to be on the winning side, with 95% confidence intervals covering disadvantages from about 4–6 or 7 percentage points. Employing these population weights slightly increases estimates of the probability of being on the winning side for white voters, and slightly decreases it for minority voters. Overall, these values echo both the absolute and relative magnitudes of the unweighted estimates in the right side of Fig. 1, though they suggest even more minority disadvantage.

3.2. Conditional associations

In the marginal associations, multiple imputation and listwise deletion yield similar estimates of minority voters' disadvantage in direct democracy. However, when we condition on the available background covariates, multiple imputation allows us to recover relationships that are lost under listwise deletion. Following the procedure described in Section 2, we find

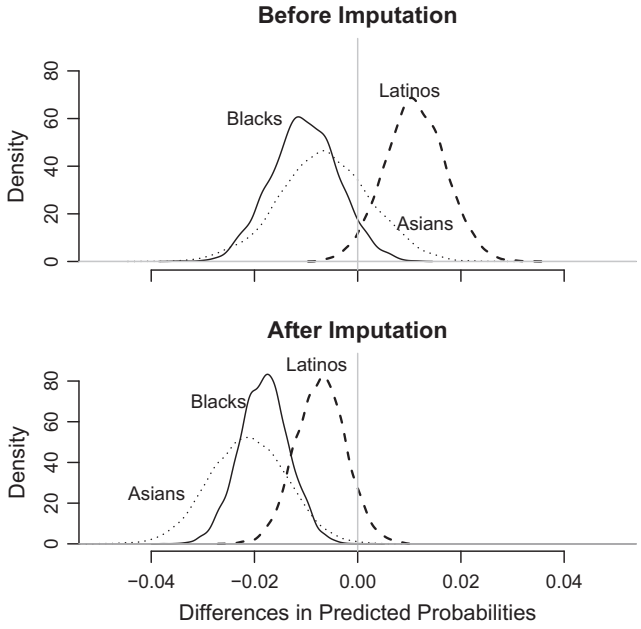

Fig. 2. Minority disadvantage, excluding minority targeted propositions. Curves represent the difference in predicted probability of winning for each minority group's voters minus whites on non-minority-targeted propositions.

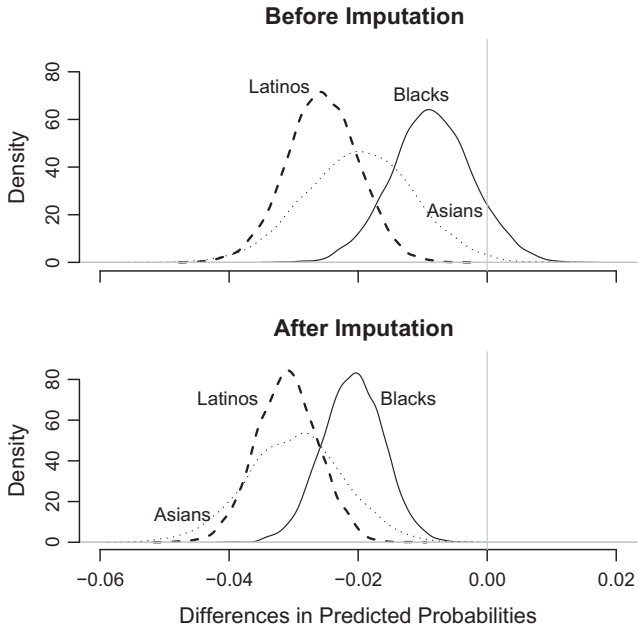

Fig. 3. Minority disadvantage, all propositions. Curves represent the difference in predicted probability of winning for each minority group's voters minus whites on all propositions.

that under the less restrictive assumptions required by multiple imputation, minority voters are in fact less likely to be on the winning side of non-targeted ballot propositions than white voters. This result challenges Hajnal et al., and demonstrates that minority voters' disadvantage is *not* confined to a subset of propositions that directly affront minority interests or preferences. Furthermore, this disadvantage appears worse in the more recent data.

For the non-minority targeted propositions, Fig. 2 presents density curves for the first differences between white voters and voters from each of the three minority groups before and after imputation. Multiple imputation allows us to detect the different successes of minority and white voters when minority-targeted propositions are excluded. Instead of the statistically insignificant 1 percentage point disadvantage estimated under listwise deletion, estimates after multiple imputation demonstrate a statistically significant disadvantage of about 1.8 percentage points for black voters. Under listwise deletion, Asian voters appear to have a statistically insignificant 0.6 percentage point disadvantage. However, relaxing listwise deletion's strong assumptions and incorporating considerably more information, a statistically significant 2.1 percentage points disadvantage emerges. Similarly for Latino voters: their apparent electoral *advantage* of 1.1 percentage points disappears when the MCAR assumption is relaxed, and an estimated 0.7 percentage points disadvantage emerges.

Excluding the racially-targeted propositions in the 2002–2004 data suggests even larger disadvantages than in the earlier period. Black, Latino, and Asian voters are respectively 4.6, 1.8, and 2.8 percentage points less likely to be on the winning side. Interestingly, in non-targeted propositions, Latino voters appear less likely to be on the winning side in the more recent sample, despite constituting an increasing share of California's population. This suggests that direct democracy may still fail Latino voters in ways that legislative institutions do not, an issue we discuss below.

When propositions on racially-targeted questions like affirmative action or official English are included, multiple imputation allows us to recover minority voters' disadvantage. Contrary to Hajnal et al., we find that all minority voters are less likely than white voters to be on the winning side of direct democracy, and that the difference is statistically significant at the 0.05 level for all three groups. We also find that voters from different groups experience more similar outcomes than indicated by analysis of the data using listwise deletion.[5]

Fig. 3 displays the minority voter disadvantages across all propositions in the 1978–2000 data. After imputation, black voters are about 2 percentage points less likely to be on the winning side than white voters, a 1 percentage points increase in their disadvantage from the estimate under listwise deletion. Their chances of success also converge with those of Latino and Asian voters. The loss of information through listwise deletion obscures this inter-minority group voter similarity. Fig. 3 shows an increased negative difference between the minority groups' voters and white voters after imputation. The mean

[5] Under listwise deletion, we use the Hajnal et al.'s data and methods and replicate their logit coefficients and levels of statistical significance (available in a Supplementary table). We then include two indicators they mention, but appear to have omitted from published calculations: one missing indicator represents an age category, the other the Northern California region. We then calculate predicted probabilities and first differences for each minority group's voters relative to white voters. We confirm Hajnal et al.'s finding that there is a statistically significant difference between white voters' and Latino voters' probabilities of being on the winning side. We also confirm that there is no statistically significant difference between white voters' and black voters' probabilities of being on the winning side. We further accept Hajnal et al.'s claim that under listwise deletion the differences between white voters' and Asian voters' probabilities of being on the winning side is not statistically significant.

black, Latino, and Asian voters are approximately 2.1, 3.1, and 3.0 percentage points less likely to be on the winning side than white voters, up from 1.0, 2.6 and 2.0 percentage points respectively.

Under listwise deletion, Latino and Asian voters' entire disadvantages in direct democracy appear to be the result of a few extreme measures targeting them. However, multiple imputation exploits the full information in the original dataset, including using all the information from Propositions 8, 10, and 209, which are entirely lost in the process of listwise deletion. Under multiple imputation, removing minority-targeted propositions shifts the estimate of Latino and Asian voters' disadvantage downward; both groups fare less poorly relative to whites when minority-targeted propositions are excluded. However, the shift is less dramatic under multiple imputation than under listwise deletion. After imputation, the gap between all three minority groups and white voters is statistically significant.

These estimates are consistent with those from the fourteen 2002 to 2004 propositions, which find post-imputation disadvantages of 2.5, 1.1, and 2.3 percentage points for black, Latino, and Asian voters, respectively. As in the non-targeted propositions, the disadvantages minority voters experience across all propositions persist after 2000.

3.3. Sorting by socioeconomic class

Further evidence on class supports the importance of race in stratifying ballot proposition outcomes in California. Even high-income and well-educated voters from minority groups tend to be on the losing side more than their white counterparts, and indeed, tend to lose more than many lower-status whites. While some have observed that responsiveness skews toward the preferences of rich constituents in Senators' roll call votes and policy outcomes (Bartels, 2008; Gilens, 2005), others note somewhat greater representation of less-educated voters in legislative outputs, with no salient differences across income groups (Soroka and Wlezien, 2010). We find that in direct democracy, race more clearly distinguishes winners from losers than does either income or education.

When one ranks the $4 \times 6 = 24$ race-by-income categories of voters by their mean or median predicted probabilities of being on the winning side in the 2002–2004 data, race dominates income. White voters with annual household incomes as low as $20,000 are more likely to be on the winning side than *all* black and Asian voters, even those earning more than $100,000 per year. They are also more likely to be on the winning side than Latino voters making up to $75,000. Further, even the poorest white voters, those earning less than $20,000 per year, fare better than all black voters, even the highest earners, and better than four of the six income categories of Latino and Asian voters. Black voters earning under $20,000 are about 4.7 percentage points less likely to be on the winning side than equivalent whites. This disadvantage persists for higher earners. Black voters earning more than $100,000 per year are about 4.6 percentage points less likely to be on the winning side than equally well-off white voters. Though poor voters of a given race are more likely to be on the losing side than rich ones, the stratification by race trumps stratification by income.

A strikingly similar pattern holds when we compare race to education. White voters with only high school degrees are more likely to be on the winning side than black and Asian voters of *any* education level, including those with graduate degrees. They are also more likely to win than Latino voters from half of the education levels. White voters lacking a high school diploma are more likely to win than black voters of any education level, than Latino voters with high school diplomas (or less), and than three of the six education levels of Asian voters. Black voters without high school degrees are 4.7 percentage points less likely to win than equivalent whites, and the best-educated black voters are about 4.6 percentage points less likely to win than similar whites. Neither income nor educational status is more associated with losing in direct democracy than race.

4. Other proposition types where minorities lose

Black, Latino, and Asian voters in California are more likely than white voters to be on the losing side of many types of proposition elections. While minority voters fare very poorly in proposition elections that directly target them, they also do worse in non-racial issue areas. In addition to race and language issues, minority voters in the 1978–2000 data are more likely to lose on questions involving elections, the environment, health, housing, government administration, taxes, and transit – issues in which minority communities exhibit particular vulnerabilities.

Black voters are significantly less likely to succeed than whites on four types of ballot propositions, in addition to racially-targeted ones. On the two propositions concerning housing, five on taxation, one on government administration, and six on elections, black voters are on average 5.7 percentage points less likely overall than white voters to be on the winning side. These propositions cover an important range of questions central to government's roles as arbiter of democracy and provider of services valuable to the black community. In housing, for example, blacks represented about 27% of heads of household in California public and subsidized housing in 2010, but only about 6% in the population (US Department of Housing and Urban Development, 2011). Since the initiative has been found to significantly decrease and decentralize taxes, black voters' frequent losses in this area may be particularly problematic as well (Matsusaka, 2004). Overall, black voters are more likely than white voters to be on the losing side in about one-third of proposition types and propositions between 1978 and 2000. Consistent with these findings, black voters are likely to lose across several other types of American elections, including those for President, Senators, governors, and mayors (Hajnal, 2009).

Latino and Asian voters lose more often than whites on a different set of propositions than black voters. Questions of public health and environmental protection, of which there are four each, disadvantage Latino and Asian voters relative to whites. Other research supports these findings, and these issue areas may be of disproportionate importance to minority communities. Tolbert and Steuernagel (2003), for example, find evidence of minority disadvantage in a single California ballot election defeating universal health coverage (Proposition 186 from 1994) at a time when Latinos were about three times more likely than whites to be uninsured. Kahn (2002) argues that minorities are more likely than whites to support environmental regulation, rules that would disproportionately protect minorities given their greater chances of living near environmental hazards (Hird, 1993; Rhodes, 2003). Latino voters also find themselves losing more often than whites on transit questions, and they are more than three times more likely to be public transit riders (Garrett, 2006). Asian voters also find themselves losing more often than whites on taxation questions. On average, Latino and Asian voters are 4.9 and 6.2 percentage points respectively less likely to be on the winning side of these issues that do not directly target racial minorities.

Conducting a similar analysis on the listwise-deleted 1978–2000 dataset would reveal only that Latino and Asian voters are disadvantaged on racial propositions and transportation questions. Multiple imputation enables us to uncover the differential in health and environmental issues as well. For Asian voters, analyzing the listwise-deleted dataset would have missed the different fortunes of Asian and white voters across all three of the non-racial issue areas (health, environment, and taxation) where we demonstrate Asian voters' disadvantage. In sum, across the $3 \times 16 = 48$ group-by-issue-areas, analyzing multiply-imputed datasets uncovers sixteen areas of minority voter disadvantage between 1978 and 2000, while analyzing the listwise-deleted dataset suggests only six (along with three areas of minority voter advantage). Thus, we argue that previous work overestimates the role of racially-targeted propositions in creating minority voter disadvantage in ballot proposition elections.

Moreover, we find that minorities continued to lose in some of the same non-racial issue areas after 2000. In 2002, minorities were more likely to lose on election-related propositions covering voter registration and term limits. Minority voters were also more likely to lose in 2004's employer pay-or-play health insurance proposition. When a racial minority group is consistently more likely to lose in a substantive policy area, it further validates the examination of political conflicts between those voters and the racial majority's.

5. Discussion

Californians decide questions as varied as school funding, same-sex marriage, energy-business surtaxes, and voter registration requirements through direct democracy. We demonstrate that across all types of propositions, racial and ethnic minority voters are marginally 4–5 percentage points, and conditionally 2–3 percentage points, more likely to lose than white voters.

A single-digit gap between ethnoracial groups might be considered inconsequential if the baseline probability of being on the winning side were either very high or very low. As it happens, the probabilities of winning tend to fall between 50% and 60%, and the average margin across propositions is 12 percentage points (indicating an average result of 56–44%). Therefore, even a gap of under 5 percentage points can easily translate into substantively significant differences in policy outcomes. This gap is the same as the median statewide differences between voters and nonvoters in presidential votes (Sides et al., 2008).

Further, our result is not merely the effect of the small number of racially-targeted propositions on which minority voters fare worst. It may come as little surprise that race matters most in ballot propositions that directly attack bilingualism, affirmative action, social benefits for non-citizens, or other practices that are perceived as disadvantaging the white majority for the benefit of racial minorities (Gibbs and Bankhead, 2001; Hajnal et al., 2002; Tolbert and Hero, 1996). However, there is more to the story. We demonstrate that black, Latino, and Asian voters in California are less likely to win even in ballot propositions that are *not* explicitly racially targeted. In fact, excluding racially-targeted propositions during 2002–2004 exacerbates estimates of minority disadvantage. Further evidence supports the hypothesis that race is more important than class in defining success in direct democracy. Additionally, since evidence suggests that minorities lose in the same issue areas over time, direct democracy may reify disadvantages set up by previous proposition outcomes.

Our findings depart from the main streams of research related to minorities and direct legislation. We argue that racial disparities in direct democracy cannot be fully understood only within the context of minority-targeted propositions, but we also show that there are differences among groups' voters when one expands the universe of inquiry to include all propositions. These differences are evident in available data, but are obscured by inferior statistical defaults such as listwise deletion. Since substantive conclusions can depend on the treatment of missing data, we strongly recommend scholars explicitly report their assumptions and procedures for addressing missingness. While it is the norm in political science to report the number of cases included in an analysis, the number and nature of cases excluded can be just as important.

This research has broader implications for our understanding of the role of direct democracy. What are the effects of being on the losing side? Bowler and Donovan (2007) provide two conclusions from survey experiment evidence. First, perceiving that one is on the losing side increases support for electoral reforms. Second, when electoral reforms are framed as loss-generating for one's opponents, one is more likely to support them. Consistent with this conclusion and ours, Tolbert (2003) argues that polities' changing racial composition has driven the adoption of governance policies through direct democracy. Similarly, Smith and Fridkin (2008, p. 339) argue that fierce interparty legislative competition may allow a

competitive, but often-losing, minority party "to convince members in the majority to cater to the median voter, even if doing so means supporting institution-weakening reforms".[6] Our findings then suggest that minority voters' losses in direct democracy could generate support for removing certain questions *from* the direct democracy arena, while white voters, if frustrated with legislative overresponsiveness, could support moving questions *into* the direct democracy arena. While the agenda setters in this arena have been found to represent a pluralist left-right balance, striking spending inequality marks many proposition campaigns (Bowler and Hanneman, 2006).

Other research demonstrates the ability of minority state legislators to buffer negative effects in cases of explicitly minority-targeted policies (Preuhs, 2005), as well as in social welfare benefits whose politics are often implicitly tied to minority groups (Preuhs, 2006; Preuhs, 2007). If interests hostile to minorities are able to move certain decisions to direct democracy, our results suggest that minorities may lose this protection in a host of important issue areas.

Of course, both ballot propositions and candidate elections only record the preferences of *voters*. If minority nonvoter preferences would tend to put them on the losing side more than minority voters, then our estimates here understate the extent to which ethnoracial minorities' opinions are underrepresented in direct democratic outcomes. While there are a few indications of such differences (such as that black nonvoters favor significant reductions in Medicaid, Medicare, Head Start, and Social Security spending by 16, 18, 20, and 23 percentage points more than black voters), on balance, evidence suggests relatively little difference between voters and nonvoters (Ellcessor and Leighley, 2001). On the other hand, different turnout rates for different groups imply different degrees of representation, even if voters and nonvoters have the same preferences within demographic groups. To the extent that minority status covaries with differences in political resources such as education, free time, income, and civic skills, we expect differences if various types of participation, including turnout, and thus that minority view are likely to be underrepresented (Verba et al., 1995). During the 1990s, for example, California's black citizen turnout was about 10 percentage points less than that of white citizens, and Latino and Asian citizen turnout was about 18 percentage points lower (Citrin and Highton, 2002). Others have shown that erasing turnout differences like these could swing some Senate, Presidential, city council, and mayoral races (Citrin et al., 2003; Hajnal and Trounstine, 2005; Sides et al., 2008).

More optimistically, recent work argues that even electoral losers tend to retain support for developed democratic systems, a finding that holds both cross-nationally and in the most recent two of three American elections considered by Esaiasson (2011).

We propose several avenues for future research. More sophisticated examination of the interaction between margin of victory and groups' probabilities of winning could provide insights. Here, our ability to do so is limited as respondents were not asked about all statewide ballot propositions, but only a subset of the most important measures. Modeling the coupling of candidates with propositions could also shed light on an important component of strategic electoral behavior. This coupling has been shown to effect turnout (Smith, 2001) and candidate support (Bucy and Ensley, 2009), and is not uncommon. For example, four propositions on California's November 2005 ballot were widely referred to as the "Schwarzenegger propositions" (Business Wire, 2005; Halperin et al., 2005), and the governor of California signed the official arguments in favor of three of these (California Secretary of State, 2005).

We wholeheartedly support shifting the focus of research from narrowly defined subsets of propositions to a much larger sample of direct legislation. In this context, we show how black, Latino, and Asian voters in California have experienced relative disadvantage in these elections.

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Appendix A. Supplementary material

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.ssresearch.2011.10.003.

References

Barabas, Jason, 2004. How deliberation affects policy opinions. American Political Science Review 98 (4), 687–701.
Barnett, James D., 1915. The Operation of the Initiative, Referendum, and Recall in Oregon. Macmillan, New York.
Bartels, Larry M., 2008. Unequal Democracy: The Political Economy of the New Gilded Age. Princeton University Press, Princeton, NJ.
Berinsky, Adam J., 2002. Silent voices: social welfare policy opinions and political equality in America. American Journal of Political Science 46 (2), 276–287.
Bowler, Shaun, Hanneman, Robert, 2006. Just how pluralist is direct democracy? The structure of interest group participation in ballot proposition elections. Political Research Quarterly 59 (4), 57–568.

[6] Interestingly, despite direct democracy losses possibly driving increased desire for electoral reforms, prevalent direct democracy does not appear correlated with decreases in expressed political efficacy among racial and ethnic minorities (Hero and Tolbert, 2004).

Bowler, Shaun, Nicholson, Stephen P., Segura, Gary M., 2006. Earthquakes and aftershocks: race, direct democracy, and partisan change. American Journal of Political Science 50 (1), 146–159.
Bowler, Shaun, Donovan, Todd, 2007. Reasoning about institutional change. British Journal of Political Science 37, 455–476.
Brehm, John, 1993. The Phantom Respondents: Opinion Surveys and Political Representation. University of Michigan Press, Ann Arbor.
Bucy, Erik P., Ensley, Michael J., 2009. Issue benefactors or issue victims? Ballot initiative influence on the vote for California Governor, 1982–1998. The California Journal of Politics & Policy 1 (2).
Business Wire, 2005. POLL: Two of Four Schwarzenegger Propositions Leading." FindArticles.com. 20 April 2008. <http://findarticles.com/p/articles/mi_m0EIN/is_2005_Oct_31/ai_n15780327>.
California Secretary of State, 2005. Official Voter Information Guide, Special Statewide Election.
Campbell, Andrea Louise, Wong, Cara, Citrin, Jack, 2006. Racial threat, partisan climate, and direct democracy: contextual effects in three California Initiatives. Political Behavior 28 (2), 129–150.
Carson, Jamie L., Engstrom, Erik J., Roberts, Jason M., 2007. Candidate quality, the personal vote, and the incumbency advantage in congress. American Political Science Review 101 (2), 289–301.
Citrin, Jack, Highton, Benjamin, 2002. How Race, Ethnicity, and Immigration Shape the California Electorate. Public Policy Institute of California Report.
Citrin, Jack, Schickler, Eric, Sides, John, 2003. What if everyone voted? Simulating the impact of increased turnout in senate elections. American Journal of Political Science 47 (1), 75–90.
Donovan, Todd, Bowler, Shaun, 1998. Direct democracy and minority rights: an extension. American Journal of Political Science 42 (3), 1020–1024.
Ellcessor, Patrick, Leighley, Jan E., 2001. Voters, non-voters, and minority representation. In: Menifield, Charles E. (Ed.), Representation of Minority Groups in the US. Austin & Winfield, Lanham, MD, pp. 127–147.
Esaiasson, Peter, 2011. Electoral losers revisited: how citizens react to defeat at the ballot box. Electoral Studies 30, 102–113.
Fowler, Floyd J., 1995. Improving Survey Questions: Design and Evaluation. Sage, Thousand Oaks, CA.
Gamble, Barbara S., 1997. Putting civil rights to a popular vote. American Journal of Political Science 41 (1), 245–269.
Garrett, Mark Evan, 2006. The Struggle for Transit Justice: Race, Space, and Social Equality in Los Angeles. Ph.D. Thesis.
Ghobarah, Hazem Adam, Huth, Paul, Russett, Bruce, 2003. Civil wars kill and maim people – long after the shooting stops. American Political Science Review 97 (2), 189–202.
Gibbs, Jewelle Taylor, Bankhead, Teiahsha, 2001. Preserving Privilege: California Politics, Propositions, and People of Color. Praeger/Greenwood.
Gilens, Martin, 2005. Inequality and democratic responsiveness. Public Opinion Quarterly 69 (5), 778–796.
Gordon, Sanford C., Hafer, Catherine, 2005. Flexing muscle: corporate political expenditures as signals to the bureaucracy. American Political Science Review 99 (2), 245–261.
Haider-Markel, Donald P., Querze, Alana, Lindaman, Kara, 2007. Lose, win, or draw? A reexamination of direct democracy and minority rights. Political Research Quarterly 60 (2), 304–314.
Hajnal, Zoltan, Trounstine, Jessica, 2005. Where turnout matters: the consequences of uneven turnout in city politics. Journal of Politics 67 (2), 515–535.
Hajnal, Zoltan L., 2009. Who loses in American democracy? A count of votes demonstrates the limited representation of African Americans. American Political Science Review 103 (1), 37–57.
Hajnal, Zoltan L., Gerber, Elisabeth R., Louch, Hugh, 2002. Minorities and direct legislation: evidence from California Ballot proposition elections. Journal of Politics 64 (1), 154–177.
Halperin, Mark, David Chalian, Teddy Davis, Jonathan Greenberger, Katie Hinman, Sarah Baker, Kelley Premo, Abe Lubetkin, Shea Wynn, 2005. "The Note: End Game." <http://abcnews.go.com/Politics/TheNote/story?id=1255636>.
Hero, Rodney E., 2010. Immigration and social policy in the United States. Annual Review of Political Science 13, 445–468.
Hero, Rodney E., Tolbert, Caroline J., 2004. Minority voices and citizen attitudes about governmental responsiveness in the American States: do social and institutional contexts matter? British Journal of Political Science 34, 109–121.
Hird, John A., 1993. Environmental policy and equity: the case of superfund. Journal of Policy Analysis and Management 12 (2), 323–343.
Honaker, James, King, Gary, 2010. What to do about missing values in time-series cross-section data. American Journal of Political Science 54 (2), 561–581.
Kahn, Matthew E., 2002. Demographic change and the demand for environmental regulation. Journal of Policy Analysis and Management 21 (1), 45–62.
Kastellec, Jonathan P., Leoni, Eduardo L., 2007. Using graphs instead of tables in political science. Perspectives on Politics 5 (4), 755–771.
Key, V.O., Crouch, Winston W., 1939. The Initiative and Referendum in California. U of California Press, Berkeley.
King, Gary, Honaker, James, Joseph, Anne, Scheve, Kenneth, 2001. Analyzing incomplete political science data: an alternative algorithm for multiple imputation. American Political Science Review 95 (1), 49–69.
Little, Roderick JA, Rubin, Donald B., 2002. Statistical Analysis with Missing Data, second ed. Wiley, Hoboken, NJ.
Los Angeles Times, 1978. Los Angeles Times Poll: California Survey Election Day. Roper Center Report, USLAT1978-012.
Los Angeles Times, 1980. Los Angeles Times Poll # 1980-030: Primary Exit Day Election Poll–California Sample. Roper Center Report, USLAT1980-030.
Los Angeles Times, 1998. Los Angeles Times Poll, Study #420/Exit Poll.
Los Angeles Times, 2000. Los Angeles Times Poll, Study #499/Exit Poll.
Lawrence Lowell, A., 1913. Public Opinion and Popular Government. Longmans, Green, New York.
Lupia, Arthur, Matsusaka, John G., 2004. Direct democracy: new approaches to old questions. Annual Review of Political Science 7, 463–482.
Madison, James, [1787] 1888. The Federalist. Number 10. G.P. Putnam's Sons, pp. 51–60.
Matsusaka, John G., 2004. For the Many or the Few: The Initiative, Public Policy, and American Democracy. University of Chicago Press, Chicago.
Mutz, Diana C., 2002. Cross-cutting social networks: testing democratic theory in practice. American Political Science Review 96 (1), 111–126.
Odem, Mary E., Lacy, Elaine (Eds.), 2009. Latino Immigrants and the Transformation of the US South. University of Georgia Press.
Preuhs, Robert R., 2005. Descriptive representation, legislative leadership, and direct democracy: Latino influence on English only laws in the states, 1984–2002. State Politics & Policy Quarterly 5 (3), 203–224.
Preuhs, Robert R., 2006. The conditional effects of minority descriptive representation: black legislators and policy influence in the American States. Journal of Politics 68 (3), 585–599.
Preuhs, Robert R., 2007. Descriptive representation as a mechanism to mitigate policy backlash: latino incorporation and welfare policy in the American states. Political Research Quarterly 60 (2), 277–292.
Rhodes, Edwardo Lao., 2003. Environmental Justice in America: A New Paradigm. Indiana University Press, Bloomington.
Rubin, Donald B. 1978. Multiple Imputations in Sample Surveys – A Phenomenological Bayesian Approach to Nonresponse. In: Proceedings of the Survey Research Methods Section, American Statistical Association, pp. 20–34.
Rubin, Donald B., 1987. Multiple Imputation for Nonresponse in Surveys. John Wiley & Sons, New York.
Rubin, Donald B., Schenker, Nathaniel, 1986. Multiple imputation for interval estimation from simple random samples with ignorable nonresponse. Journal of the American Statistical Association 81 (394), 366–374.
Schildkraut, Deborah J., 2001. Official-English and the states: influences on declaring english the official language in the United States. Political Research Quarterly 54 (2), 445–457.
Sides, John, Schickler, Eric, Citrin, Jack, 2008. If everyone had voted, would Bubba and Dubya have won? Presidential Studies Quarterly 38 (3), 521–539.
Smith, Daniel A., Fridkin, Dustin, 2008. Delegating direct democracy: interparty legislative competition and the adoption of the initiative in the American States. American Political Science Review 102 (3), 333–350.
Smith, Mark A., 2001. The contingent effects of ballot initiatives and candidate races on turnout. American Journal of Political Science 45 (3), 700–706.
Soroka, Stuart N., Wlezien, Christopher, 2010. Degrees of Democracy: Politics, Public Opinion, and Policy. Cambridge University Press, New York.
Stone, Randall W., 2004. The political economy of IMF lending in Africa. American Political Science Review 98 (4), 577–591.

Tolbert, Caroline J., 2003. Direct democracy and institutional realignment in the American States. Political Science Quarterly 118 (3), 467–489.
Tolbert, Caroline J., Steuernagel, Gertrude, 2003. Race, welfare, and the politics of reform. U of Michigan Press chapter Race/Ethnicity and Referenda on Redistributive Health Care, Ann Arbor.
Tolbert, Caroline J., Grummel, John A., 2003. Revisiting the racial threat hypothesis: white voter support for California's Proposition 209. State Politics & Policy Quarterly 3 (2), 183–202.
Tolbert, Caroline J., Hero, Rodney E., 1996. Race/ethnicity and direct democracy: an analysis of California's illegal immigration initiative. Journal of Politics 58 (3), 806–818.
Tolbert, Caroline J., Hero, Rodney E., 2001. Dealing with diversity: Racial/ethnic context and social policy change. Political Research Quarterly 54 (3), 571–604.
Tsai, Lily L., 2007. Solidary groups, informal accountability, and local public goods provision in rural China. American Political Science Review 101 (2), 355–372.
US Department of Housing and Urban Development, 2011. Resident Characteristics Report (RCR).
Verba, Sidney, Schlozman, Kay Lehman, Brady, Henry E., 1995. Voice and Equality: Civic Voluntarism in American Politics. Harvard University Press.
Wellhofer, E. Spencer, 2003. Democracy and fascism: class, civil society, and rational choice in Italy. American Political Science Review 97 (1), 91–106.
Yoshinaka, Antoine, Grose, Christian R., 2010. Who Really Loses in American Democracy?.