



RACIAL & ETHNIC DISPARITIES IN VOTE-BY-MAIL CHALLENGES & CURES IN WA STATE

REPORT #2026-4

Vote-by-Mail (VBM) in Washington State requires voters to sign their ballot envelope to verify identity. This report examines racial and ethnic disparities in how voters complete their ballot envelope signature.

VBM systems require voters to sign the ballot envelope to verify their identity. Upon receipt at county elections offices, ballot envelopes are examined by trained staff to determine if the signature provided matches that on file. Ballots without a signature or without a matching signature are determined to be “signature challenged,” and the voter is given an opportunity to correct, or “cure”, their signature challenged ballot. Research suggests that voters of color are more likely to experience signature challenges. As a result, this report examines racial and ethnic variation in ballot challenges and cures from 2020 to 2024 in Washington State.

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Vote-by-Mail and Demographic Variation in Ballot Outcomes

Washington State administers a Vote-by-Mail (VBM) system that operates as follows:

- Ballots are mailed to voters at least 18 days before a given election day.
- The return envelope accompanying the ballot includes a place for the voter to sign and use to return the completed ballot.
- Ballots must be placed in an official ballot drop box by 8pm on election day or postmarked by election day.

A ballot is “challenged” if the envelope is not signed or the signature is determined by county elections administrators not to match signatures on file. :

- Voters with a signature challenged ballot receive a letter from their county election office inviting them to cure their ballot by completing a signature verification or resolution form.
- Voters receive email or text message notice of a signature challenge, if they sign up to received other types of notifications from their county elections office.
- Voters also may follow their ballot path on VoteWA.gov.
- County elections staff review signature verification forms and accept ballots in question if signatures match those on the voter registration form. Signature challenged ballots not cured before county certification of election results are rejected.^[1]

While ballot signature challenge rates are generally low across all voters, vote-by-mail research finds evidence that voters of color experience higher rates of mailed ballot rejection than non-Hispanic White voters.^[2]

In addition to past policies that have restricted the right to vote and constrained voter mobilization within communities of color, there are additional contemporary factors specific to VBM that may explain observed disparities in signature mismatch ballot rejection rates among voters of color.

First, ballot materials may not be translated in languages other than English, which increases the chance of ballot rejection for voters whose primary language is not English. Second, Hispanic and Asian voters may be more likely to use shortened versions of complex middle names and surnames for signatures in daily life than White voters. Shortened signatures in these instances may not match the full signature on file.

Finally, also consistent with the historical legacy of racial and ethnic discrimination in electoral systems, there is concern that local election administrators may subject the signatures of voters with Hispanic or Latino surnames to a higher level of scrutiny and challenge than voters whose surnames less obviously convey racial or ethnic identity.^[3]

[1] For more detailed information about VBM administration in Washington State, visit the Washington Secretary of State website (www.sos.wa.gov/elections).

[2] California Civic Engagement Project (2014), Cottrell, Herron, and Smith (2021), Herndon, Oskooii, and Rios (forthcoming), Shino, Suttman-Lea, and Smith (2022), Smith and Baringer, (2019).

[3] Allard et al., (2023, 2025), Herndon, Oskooii, and Rios (forthcoming).

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Given this research evidence, this report examines ballot signature and cure rates by race and ethnicity for voters in Washington State from 2020 to 2024.

Data and Methods

Analyses in this report examine signature challenge and cure rates using voter-level ballot data from the Washington Secretary of State. Ballot data files provide voter-level information about self-reported gender, date of birth, date ballot was received by county elections office, indicator if the ballot was signature challenged, information on the timing of the cure notice to the voter, and an indicator that the ballot was or was not cured.

Cast ballots are defined here as those are accepted by county election administrators, those that are challenged for missing signatures or signature mismatch, and those that are returned late.^[4] Analyses here focus on 23,912,357 cast ballots in primary and general elections from 2020 to 2024 (9.0 million and 14.9 million respectively), with particular attention to those without an envelope signature or those without a matching signature.

Despite interest in comparing the experiences of voters of color to non-Hispanic White voters, however, voter-level data in Washington State

does not contain information about the race or ethnic identity of voters. While it would be preferable to have self-reported information about race and ethnic identity, this study relies on imputed race and ethnicity to understand the racial backgrounds of Washington State voters. Specifically, we use Bayesian Improved Surname Geocoding (BISG) statistical modeling. BISG uses individuals' surnames and geographic locations to statistically estimate the probability that each individual fall into a given racial category (Asian American, Black, Hispanic, or White). In the end, BISG produces a probability that each individual possesses each racial background. While BISG might get some individuals' racial backgrounds "wrong," the average or total of individuals across racial groups is estimated very accurately.^[5]

It is important to note a few data caveats or limitations that will place analyses presented below in an accurate light. First, our imputation method is limited to making inference about the probability a voter would identify as White, Black, Hispanic, or Asian. This method is unable to make inference about voters who would identify as Native American, many other ethnic identities, or more complex racial and ethnic identities. Next, while we observe ballot signature challenges and ballot rejections due to signature mismatch in our data, our data do not allow us to assess whether signature matching processes are administered differently in different counties or for different

[4] Although there are several other ballot statuses tracked by WA Vote (e.g., invalid, suspended, undeliverable), those ballot statuses represent roughly 4 percent of all ballots sent to registered voters statewide in primary or general elections from 2020 to 2024.

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types of voters. Accordingly, we interpret the findings presented below with the data limitations in mind.

Signature Challenges in Primary and General Elections

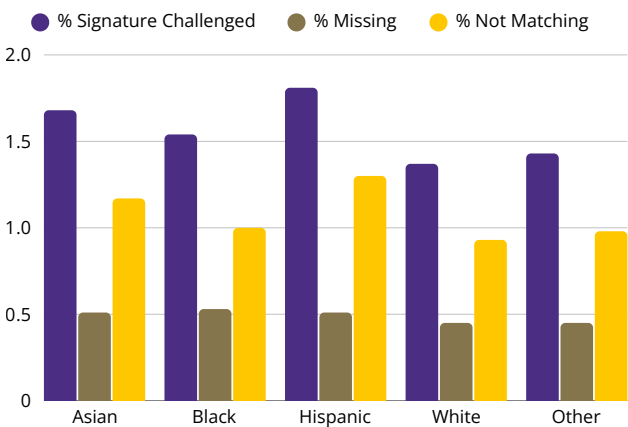
Of the nearly 24 million ballots cast across primary and general elections from 2020 to 2024, 1.6 percent, or about 378,000 ballots, received a signature challenge, either because of a missing signature on the envelope or an envelope signature that was assessed to not match the signature on file at the time of initial ballot processing. Since 2020, the average signature challenge rate in general elections (1.7 percent) is slightly higher than in primary elections (1.4 percent).

It is the case that a majority of signature challenges are because the envelope signature did not matched the signature on file. In primary elections from 2020 to 2024, roughly two-thirds of all signature challenged ballots were determined initially to not have a signature matching the one on file. Similarly, almost 80 percent of all signature challenged ballots in general elections from 2020 to 2024 were determined not to have a matching signature.

Figures 1 and 2 examine signature challenges by imputed race and ethnicity for primary and general elections from 2020 to 2024. Consistent

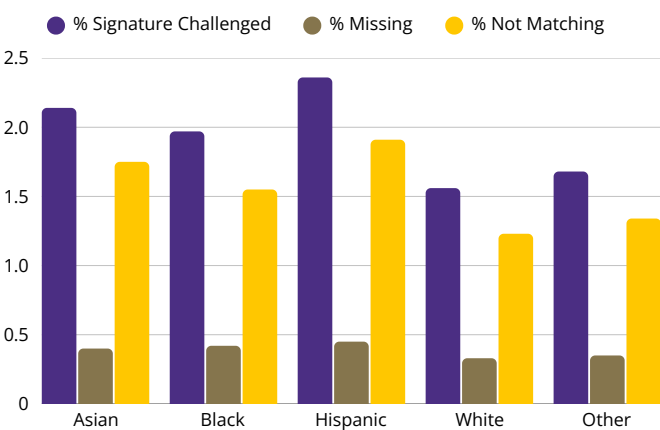
with prior research, we find statistically significant differences in ballot challenge rates between voters of color and White voters.

Figure 1: Signature Challenges in Primary Elections by Race & Ethnicity, 2020-24
(Percent of all Ballots Cast)



Source: Washington Secretary of State

Figure 2: Signature Challenges in General Elections by Race & Ethnicity, 2020-24
(Percent of all Ballots Cast)



Source: Washington Secretary of State

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Although the percentage-point differences in Figures 1 and 2 appear small, Asian and Hispanic voters experience signature challenge rates that are roughly 20 percent higher than non-Hispanic White voters in primary elections and about 50 percent higher than non-Hispanic White voters in general elections. For example, 1.81 percent of ballots cast by Hispanic voters in primary elections since 2020 were challenged for signature reasons, compared to 1.37 percent of White voters. In general elections from 2020 to 2024, 2.36 percent of ballots cast by Hispanic voters in general elections since 2020 were challenged for signature reasons, compared to 1.56 percent of White voters.

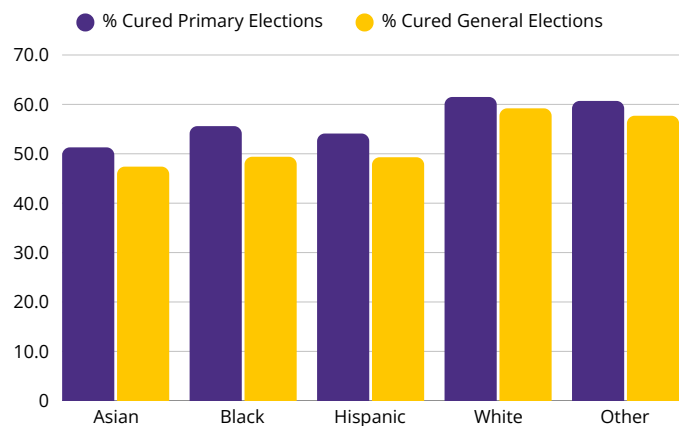
Ballot signature challenge rates also similarly higher among Black voters than non-Hispanic White voters. About 1.5 percent of primary ballots and 2 percent of general election ballots cast by Black voters were challenged for signature reasons, roughly 12 to 25 percent higher than signature challenge rates for non-Hispanic White voters, respectively. Although not reported here, these racial and ethnic gaps in signature challenge rates are consistent across time since 2020.

Ballot Curing in Primary and General Elections

Figure 3 compares ballot cure rates from 2020 to 2024 by imputed race and ethnicity across primary and general elections. Consistent with

evidence of racial disparities in signature challenges, we find evidence of racial and ethnic differences in ballot curing rates. For example, the ballot curing rate for White voters is about 10 percentage points higher in general elections since 2020 (59.2 percent) than for Black voters (49.4 percent), Hispanic voters (49.3 percent), or Asian voters (47.4 percent). Similar patterns are present when looking at primary elections.

Figure 3: Ballot Curing by Race & Ethnicity, 2020-24
(Percent of all Ballots Cast)



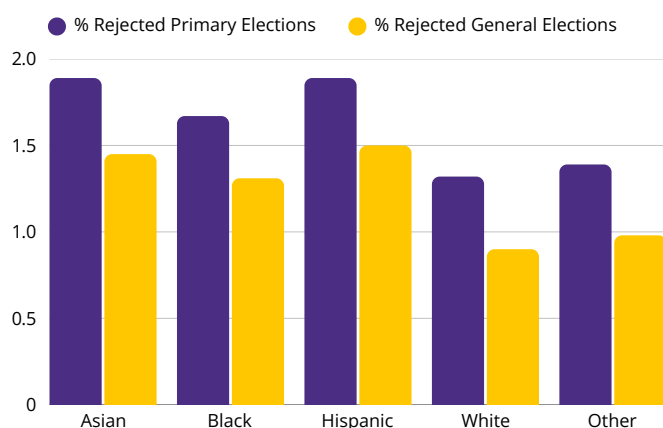
Source: Washington Secretary of State

Challenges and Cure Processes Combine to Create Racial and Ethnic Disparities in Ballot Rejections

Combined, racial and ethnic disparities in signature challenge and cure rates lead to much higher ballot rejection rates among voters of

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Figure 4: Ballot Rejections for Signature Challenges by Race & Ethnicity, 2020–24
(Percent of all Ballots Cast)



Source: Washington Secretary of State

color compared to non-Hispanic White voters. For example, general election ballot rejection rates for Hispanic and Asian voters almost 70 percent higher rate than the rate for White voters (1.5 percent versus 0.9 percent, respectively). Black voters experienced ballot rejections in general elections at a rate about fifty percent higher than White voters (1.3 percent versus 0.9 percent, respectively). While ballot rejection rates are slightly higher in primary elections across all racial and ethnic groups, the relative differences in rejection rates between voters of color and White voters are comparable in primary elections to those observed in general elections.^[5]

Discussion

Washington's vote by mail system continues to operate as a national model, administering VBM elections with a high degree of integrity and reliability. Overall, ballot challenge and rejection rates are on par with or lower than other states that vote fully by mail. Nevertheless, there is evidence of racial and ethnic disparities in both signature challenged and ballot curing processes that lead to higher ballot rejection rates among voters of color compared to non-Hispanic White voters.

State and local government can take several actions to improve the voting experience for all voters in Washington, which also will reduce racial and ethnic disparities in signature challenges and cures. Statewide and local voter outreach and educational programs should underscore the importance of matching ballot signatures with the signature that is on the voter registration file (usually through the Department of Licensing). Moreover, voter education efforts should work to improve voter understanding of the signature verification process. County elections offices should continue their efforts to offer voters regular opportunities to update signatures on file. The State of Washington should continue to work with county election offices to improve

[5] Observed racial and ethnic disparities in ballot rejection rates in Washington State are comparable in magnitude to those found elsewhere in other studies of vote-by-mail. See Smith and Baringer (2019).

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language accessibility in online voter information, signature challenge notices, and signature verification forms for voters whose primary language is not English. Similarly, as state and local election officials expand the use of technology solutions to reduce late ballots and ballot rejections, such as text notification systems, such efforts should reflect the needs of language minority populations across the state. Finally, ballot drop boxes could be enhanced or redesigned to remind voters to sign their ballots.

In addition to governmental efforts, community-based organizations could play a stronger role in educating voters around VBM and helping voters cure challenged ballots, particularly within historically marginalized communities. Messaging encouraging voters to return their ballots as early as possible, to sign their ballots, and to sign using their driver's license signature may be particularly useful to reduce rejected ballot rates. Similarly, community-based organizations should work with county and state government to help voters learn about ballot processing and signature verification.

For additional data and research on VBM in Washington State, please visit:
<https://waelectiondata.csde.washington.edu/>

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