

# Invalid Signature Rejections in Georgia Absentee Voting: Comparing the 2020 General to the 2021 Senate Runoff

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**Abstract:** In the wake of the 2020 presidential election, Donald Trump and his allies made several claims about the purportedly low number of absentee ballots rejected in Georgia for failing to match voter signatures. The implication was clearly that local election officials were not sufficiently scrutinizing absentee ballots, opening the door to potential fraud. These claims drew national attention to the relatively obscure process of absentee ballot verification. Given that Georgia held its highly publicized U.S. Senate run-off election only a few months following the general, we took this opportunity to see if there were any differences in the rejection behavior of local administrators after the introduction of Trump's related rhetoric. We find a drastic increase in the number of ballots rejected for invalid signatures in the run-off compared to the general. This increase is particularly concentrated among ballots that would eventually be cured. Furthermore, there is a significant shift in the profiles of voters rejected between the two elections. The rejected voters in the run-off were more likely to belong to Republican leaning groups (older, whiter, and less urban) than in the general. Although we cannot attribute these changes directly to Trump's rhetoric with scientific certainty, we find evidence contrary to other plausible explanations. These findings pose serious questions about the methods of signature matching as a form of verification and demonstrate the importance of identifying cured ballots when assessing ballot rejections more generally.

## Introduction

The vast majority of Americans have traditionally cast their ballots in person (Hartig et al 2020). Of course, with the arrival of the COVID-19 pandemic and increased concerns over public health, we experienced a drastic expansion of vote-by-mail and absentee in the 2020 general election. In fact, Pew reports that 46% of voters said they cast their ballot by mail in 2020, which is up from 20.9% in 2016 (Hartig et al 2020; Pew 2020). Given its increased use across the country, public scrutiny has recently focused on the mechanics of absentee voting. Here, we examine one aspect of these mechanics: invalid signature rejections or those absentee ballots that are marked as invalid because the signature on the ballot does not appear to match that of the registered voter on file.

While this fairly obscure aspect of our electoral process has not received much attention in the past, this changed when, in the wake of the 2020 presidential election, Donald Trump and his allies made several claims about the purportedly low number of absentee ballots rejected in Georgia for invalid signatures (for an example, see Reuters 2020). When Trump tweeted: “In years past, close to 4% [rejections for invalid signature]. Not possible. Must have signature check on envelopes now (Trump Twitter Archive 2020),” the implication was clearly that local election officials were not sufficiently scrutinizing absentee ballots, opening the door to potential fraud. Even though Georgia’s Secretary of State demonstrated that 2020 rejection rates were low or on par with recent elections (Raffensburger 2020) and the state’s own post-election signature audit found no evidence of fraud (Niese 2020), this rhetoric nevertheless permeated the media landscape.

Given that there was another highly publicized election in Georgia only a few months following the general, we took this opportunity to see if there were any differences in the rejection behavior of local administrators after the introduction of Trump’s related rhetoric. Did these unfounded arguments lead to changes in the way that elections were administered on the ground? Although we cannot directly attribute any observed changes to Trump with scientific certainty, we do observe a drastic shift between November of 2020 and January of 2021 in terms of both the number of rejections and the types of voters being rejected.

## What do we know about absentee ballot rejections?

Unlike ballots cast in person, absentee ballots may be rejected for various reasons. The three most common reasons in Georgia include a) the ballot was received late, b) the ballot was received without a signature, c) the ballot signature does not match the voter signature on file. Further, the Georgia absentee ballot tracking file identifies an additional two reasons for rejections as “ineligible elector” and “ID not provided.” Figure 1 below shows the number of final rejections by rejection category in Georgia for the 2020 general and the 2021 runoff.

«FIGURE 1 ABOUT HERE»

A total of 4,583 ballots were rejected in the general election, and that number went up to 6,742 in the runoff. Across both elections the majority of rejections were for ballots received late (2,553 in the general and 3,551 in the runoff). In the general election, rejections for missing signatures were more numerous than those for invalid signatures (1,261 vs. 712), but invalid signature rejections (1,781) overtook missing signature rejections (1,318) in the runoff.

In addition to the variety of reasons for absentee ballot rejections, we would also like to know if specific groups of voters are more likely than others to have their ballots rejected. Unfortunately, because in-person voting has been the overwhelming method of casting a ballot until recently, there is comparatively little research on the niche topic of absentee vote *rejections*. What is available points us towards the effects of youth, inexperience, and minority race/ethnicity as primary correlates of absentee ballot rejection (Alvarez, Hall and Sinclair 2008; Bartinger, Herron, and Smith 2020). This scant research, however, focuses exclusively on ballots that are received late or ballots that do not have any signature at all (Shino, Suttman-Lea, and Smith 2021), and explicitly omits the type of rejections that Trump singled out, which result from invalid signatures.

## Cumulative Rejections vs. Final Rejections

While absentee ballots may be rejected for invalid signatures, due to the generally subjective nature of these determinations, these rejections have the opportunity to be corrected by the voter. In Georgia specifically, voters are notified that their ballot was rejected for invalid

signature and given up to three days after the polls close to submit an affidavit to the Board of Registrars or absentee ballot clerk confirming that the ballot was submitted by the registered elector (O.C.G.A. §21-2-386).

These ballot cures then represent confirmed erroneous rejections. If you were to simply examine the number of ballots rejected at the final tally, as is common, you would miss all of the previously rejected ballots that were subsequently accepted after a successful cure. Therefore, we can differentiate between cumulative rejections, or all ballots that were rejected at some point, and final rejections, those ballots that were rejected, remained so, and are not counted.

To measure both final and cumulative rejections we rely on data from VoteShield, a non-profit that provides data analysis and machine learning tools to state and local election administrators to help them actively monitor the voter rolls and absentee voter files for security and accuracy. Because VoteShield receives regularly updated versions of the Georgia absentee voter file, they are capable of tracking changes over time to individual records, allowing us to see those ballot cures that would otherwise be invisible when looking at any single snapshot. When a ballot is received and processed, we can see whether it was initially rejected for an invalid signature in the ballot status field. Identifying cures is simply a matter of regularly reviewing these rejected ballots for changes in their statuses to “accepted” in subsequent snapshots. The calculations based on this procedure for the 2020 general and 2021 runoff are presented in figure 2.

«FIGURE 2 ABOUT HERE»

Figure 2 shows a drastic increase in the number of invalid signature rejections in the runoff compared to the general election, even while there were about 350,000 fewer absentee voters in the runoff. Specifically, there were more than four times as many absentee ballots rejected for invalid signatures after Trump made his controversial claims (4,520) than before (1,056). This amounts to a nearly five-fold increase in a voter’s likelihood of being rejected in the runoff compared to the general. There was also a drastic increase in the rate at which invalid signature rejections were cured in the runoff. We saw this rate increase from 32.4% in the general election to 60.6% in the runoff (figure 3), further suggesting that the surge in rejections was substantially due to higher levels of erroneously rejected ballots. Finally, while the increase is noticeable for

final rejections alone (an increase of more than 100%), only when we consider the cures do we see the true magnitude of the change in rejection behavior (an increase of more than 300%).

«FIGURE 3 ABOUT HERE»

## **A shift in voter profiles for invalid signature rejections**

Not only did we find an increase in invalid signature rejections, but we also see that the profiles of voters rejected changed substantially from the general to the runoff. The scant academic research on absentee ballot rejections suggests that younger, less experienced, and/or minority voters are more likely to be rejected. This result, however, relates exclusively to types of rejections not under examination here and, therefore, is not directly relevant.

Rejections specifically for invalid signatures may, for instance, occur more commonly among older voters than other types of rejections due to the potential for signatures to change over time. For this reason, we make no claims about the expected composition of the rejected voters in the 2020 general election. Rather, we focus on the changes in rejection behavior between the 2020 general election and the 2021 Senate runoff.

As we have already demonstrated, there was a significant increase in both final and cumulative invalid signature rejections in the 2021 runoff when compared to the general. In addition, the social and demographic profiles of the rejected voters were also different in the runoff than in the general. Figure 4 compares the age distributions for invalid signature rejections across both elections.

«FIGURE 4 ABOUT HERE»

We can see that, at least in Georgia, it is older voters who are more likely to be rejected for invalid signatures than younger ones. More interestingly, however, is that there was a significant increase in the proportion of invalid signature rejections among voters 65 and older in the runoff, as well as a smaller, yet still significant, decrease among the youngest age cohort (18-24). This indicates that the increase in invalid signature rejections in the runoff disproportionately affected older voters.

We also find differences in the racial profiles of the rejected voters across these two elections. Figure 5 shows that while a plurality of invalid signature rejections in the general were found among self-identified Black non-Hispanic voters, in the runoff it is White non-Hispanic voters who make up a plurality. Furthermore, all other non-White groups took up a smaller share of the rejections in the runoff than in the general.

«FIGURE 5 ABOUT HERE»

We can also compare across elections in terms of where the rejections are occurring. Specifically, we separate Georgia counties into three groups: rural, urban, and suburban<sup>1</sup> and present the results for both elections in figure 6. In the general election, the rejection rates for invalid signatures across the types of counties were generally very similar and remained under one rejection per 1,000 ballots returned.

«FIGURE 6 ABOUT HERE»

The runoff reveals a different pattern, however. While the average number of rejections across these county types shows increases in the runoff compared to the general, there are also clear differences across county types. Suburban counties average over 4.5 invalid signature rejections per 1,000 ballots returned, more than double what we see in urban counties.

In addition to its size and the altered voter profiles, the group of invalid signature rejections in the runoff may also stand out on another front. Specifically, these rejected voters show very high rates of successfully voting in Georgia just two months prior. Figure 7 shows that the vast majority of voters rejected for invalid signatures in the runoff cast a vote in the 2020 general, with a significant majority across all age groups successfully casting an absentee ballot by mail. In total, 74% of the invalid signature rejections in the runoff had an absentee mail ballot accepted in the 2020 general. Furthermore, this rate jumps to above 80% for voters 65 years of age or older.

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<sup>1</sup>County classification is based on 2010 Census data. Counties where the percent of the population in “rural areas” is greater than that in “urban areas” are classified as “rural” (n=108). Counties that have a greater urban population than rural and have an urban population density greater than 1,800 per square mile of urban area (Top 3% in terms of urban density) are categorized as “urban” (N=6). Remaining counties were categorized as “suburban” (N=45).

«FIGURE 7 ABOUT HERE»

## Conclusions

Between November 2<sup>nd</sup>, 2020 and January 6<sup>th</sup>, 2021 we observed a drastic increase in the number of absentee ballots rejected for invalid signatures. If we consider only the final rejections—those ballots that were never cured or counted—we see a doubling over this period. When we look at cumulative rejections in the runoff—or all ballots rejected for invalid signatures—we actually see more than five times the number of rejections we would expect. Based on the rejection rate in the general election, we would expect to see only 863 invalid signature rejections in the runoff. However, there were 4,520 invalid signature rejections in the runoff, 3,657 more than expected.

The types of voters rejected in the runoff were also different from those in the general. The runoff rejected voters were, on average, older, whiter, and less urban than in the general election. Although we do not have party affiliation in the Georgia voter file, it should be noted that the voters rejected in the runoff more closely resembled a traditional Republican voter profile than in the general, where rejected voters were younger, less white, and more urban.

Although we cannot attribute the increase in invalid signature rejections to Trump’s threats (Trump Twitter Archive 2020) with scientific certainty, we can say that the increase in rejections was not likely caused by a corresponding increase in invalid signatures. Unlike in the general where only 32.5% of invalid signature rejections were cured, in the runoff more than 60% were cured. This massive increase, which accounts for more than 69% of the total increase, indicates that administrators in the runoff were much more likely to reject a valid ballot than in the general. Furthermore, almost three-quarters of the rejections in the runoff successfully voted by mail in the general election just over two months prior. It seems unlikely that signatures would change so drastically as to be unrecognizable in such a short period for so many voters.

Since it is doubtful that all rejected voters took the opportunity to cure their ballots, the change to a stricter signature matching standard in the runoff likely led to the cancellation of some legitimate ballots that otherwise would have been counted. Yet, because the number of rejected ballots account for only a small portion of the vote margins for state-wide races in Georgia, these rejections were not decisive to the outcome of the runoffs. Further, Governor

Kemp has since signed SB 202 into law, which removed signature matching in Georgia in favor of requiring mail voters to submit their state issued identification number with their ballot.

Signature matching, never-the-less, remains a common means of verifying voter identities on mail and absentee ballots across the states. According to the *New York Times*, as of October 7, 2020, 32 states and the District of Columbia had some form of signature matching requirement (Buchanan Parlapano 2020). Although many jurisdictions impose standards meant to remove the subjective elements of this procedure,<sup>2</sup> many other impose no such requirements. Furthermore, in the wake of "The Big Lie", states without signature matching are moving to implement it. In Florida, for example, the recently signed SB 90 strengthens signature matching requirements, without addressing the issues of subjectivity identified above. This is particularly concerning because invalid signature rejections more commonly occur among older voters than other types of rejections, thus, disproportionately disenfranchising senior populations. Although, as noted above, the number of rejections would not generally be decisive in state-wide races, they could matter in local races, especially where there are larger concentrations of senior voters.

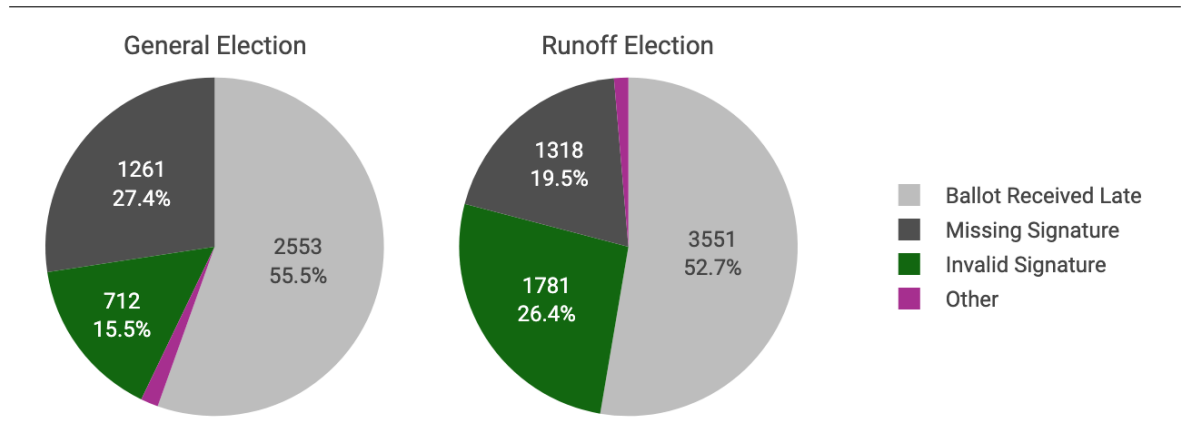
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<sup>2</sup>In Denver, for example, they use software to compare signatures, thus minimizing the human element.

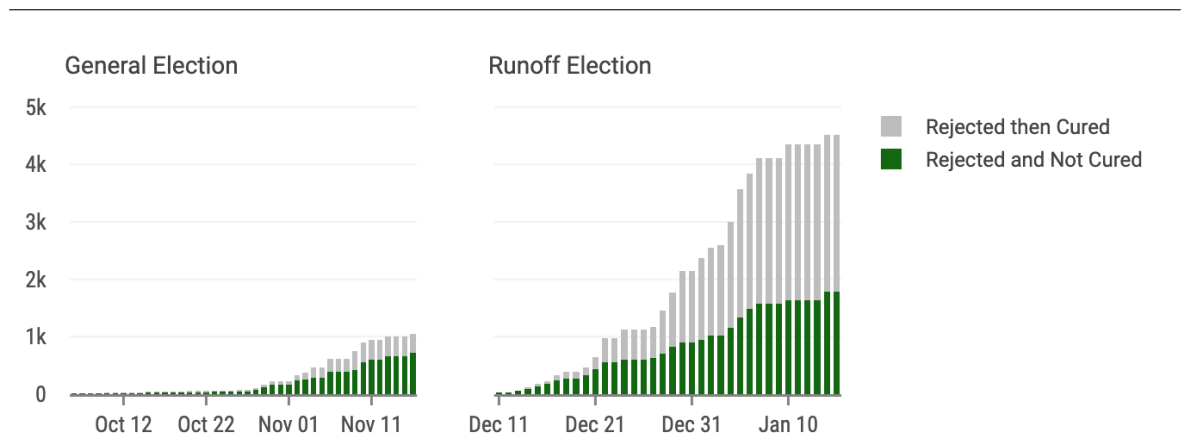


# Figures

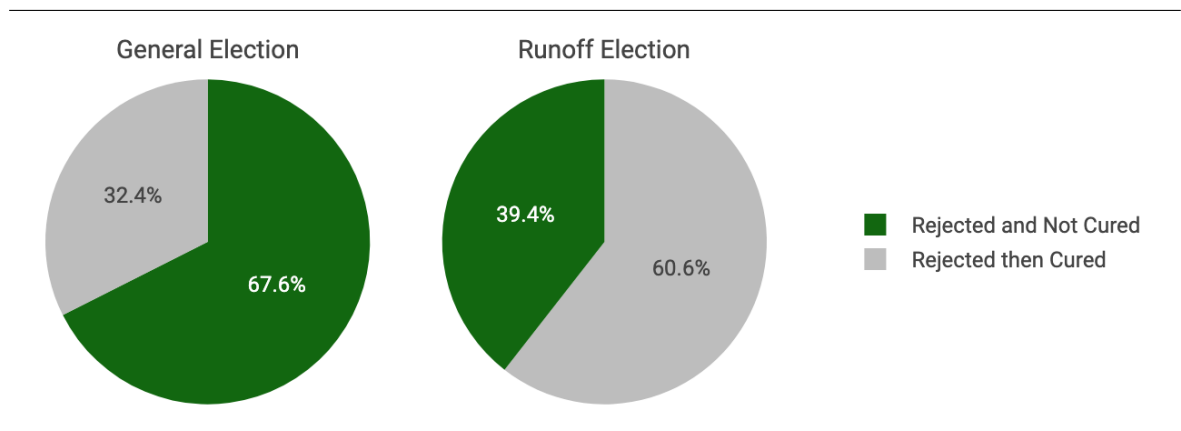
**Figure 1:** Final Rejections by Rejection Category



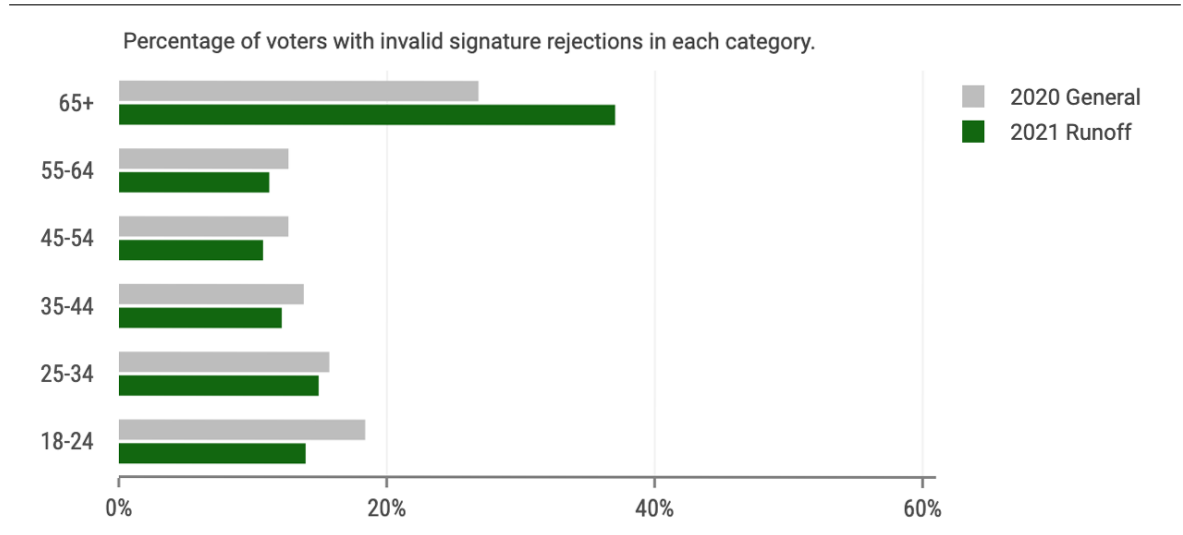
**Figure 2:** Cumulative Rejections For Invalid Signatures



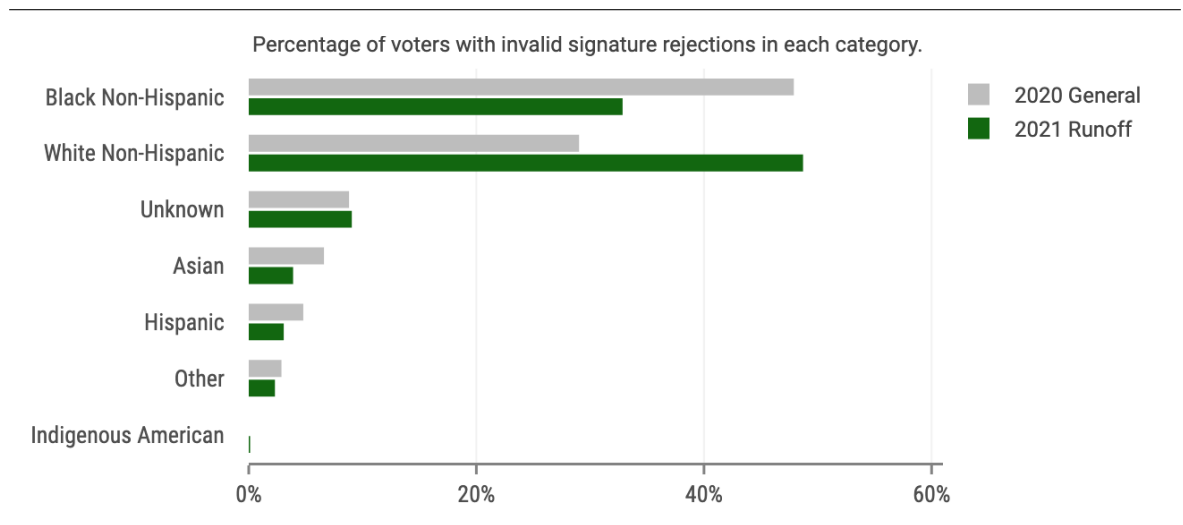
**Figure 3:** Percent of Invalid Signature Rejections Cured



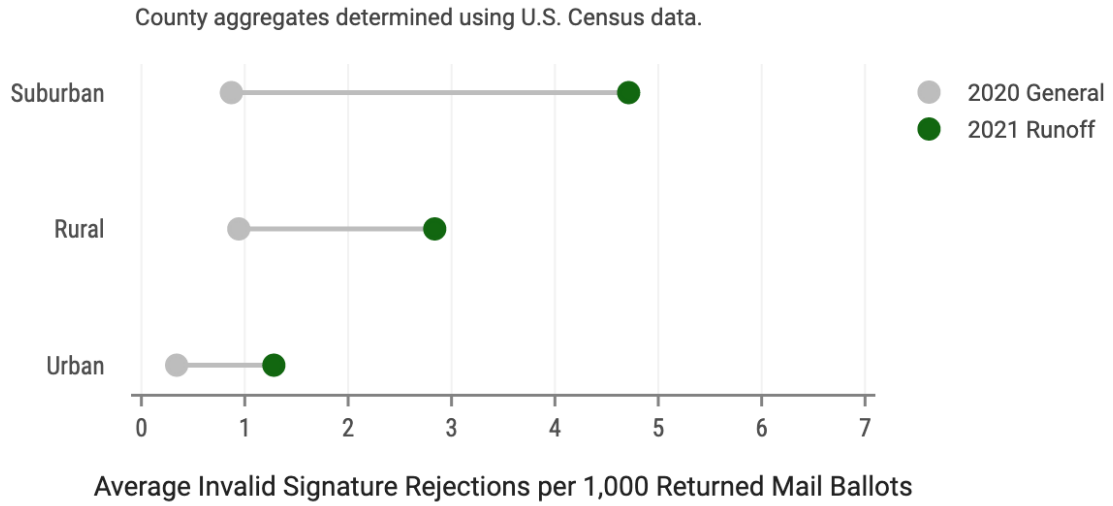
**Figure 4:** Invalid Signature Rejections by Age



**Figure 5:** Invalid Signature Rejections by Self-Identified Race

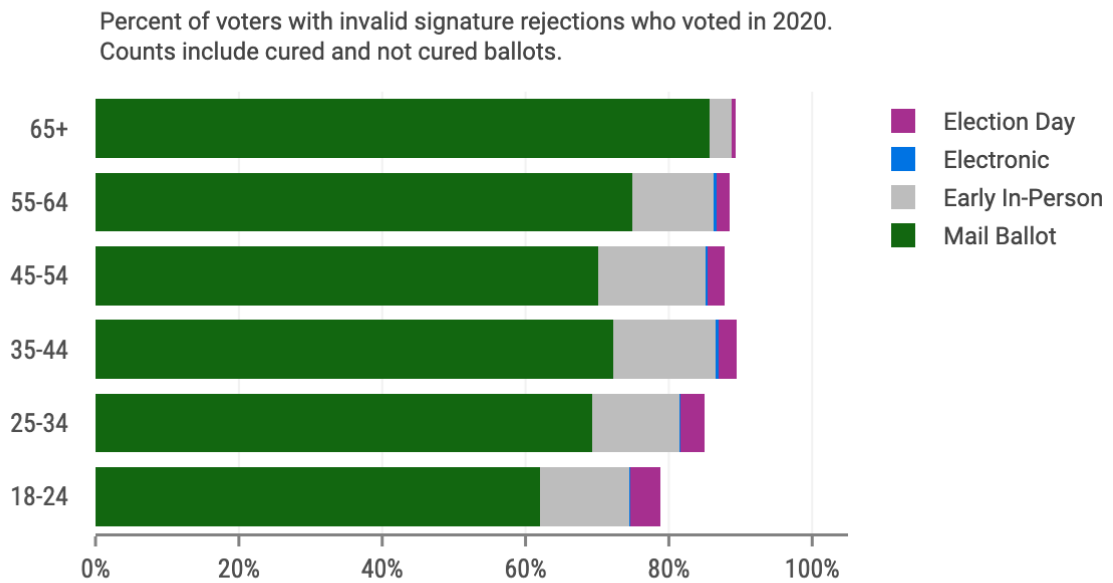


**Figure 6:** Invalid Signature Rejections by County Category



Note: Suburban and rural means are statistically different at 95% confidence.

**Figure 7:** 2020 Vote Method for 2021 Invalid Signature Rejections



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