

Exhibit A

SUPREME COURT OF THE STATE OF NEW YORK
COUNTY OF NEW YORK

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Michael Williams, José Ramírez-Garofalo, Aixa Torres, and
Melissa Carty,

Petitioners,

Index No. 164002/2025

-against-

**Reply Expert Report of Dr.
Maxwell Palmer**

Board of Elections of the State of New York; Kristen Zebrowski Stavisky, in her official capacity as Co-Executive Director of the Board of Elections of the State of New York; Raymond J. Riley, III, in his official capacity as Co-Executive Director of the Board of Elections of the State of New York; Peter S. Kosinski, in his official capacity as Co-Chair and Commissioner of the Board of Elections of the State of New York; Henry T. Berger, in his official capacity as Co-Chair and Commissioner of the Board of Elections of the State of New York; Anthony J. Casale, in his official capacity as Commissioner of the Board of Elections of the State of New York; Essma Bagnuola, in her official capacity as Commissioner of the Board of Elections of the State of New York; Kathy Hochul, in her official capacity as Governor of New York; Andrea Stewart-Cousins, in her official capacity as Senate Majority Leader and President *Pro Tempore* of the New York State Senate; Carl E. Heastie, in his official capacity as Speaker of the New York State Assembly; and Letitia James, in her official capacity as Attorney General of New York,

Respondents,

-and-

Representative Nicole Malliotakis, Edward L. Lai, Joel Medina,
Solomon B. Reeves, Angela Sisto, and Faith Togba

Intervenor-Respondents,

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REPLY REPORT OF MAXWELL PALMER, PH.D.

1. I submitted my expert report in this matter on November 18, 2025. In that report I analyzed racially polarized voting in the current New York 11th Congressional District, as well as under the plaintiff's illustrative district. I found significant levels of racially polarized voting across 20 elections from 2017 to 2024. Black and Hispanic voters shared the same candidates of choice, and these candidates were generally defeated by the White preferred candidate.
2. I have been asked to respond to the rebuttal reports of Dr. John Alford and Dr. Steven Voss.

Responses to Dr. Alford

3. Dr. Alford raises no methodological issues with my report. Indeed, he uses the exact same methodology and implementation of the ecological inference model (EI) that I use. Dr. Alford does not contest my conclusion that Black and Hispanic voters in the 11th Congressional District vote cohesively, nor that White-preferred candidates generally defeat the Black and Hispanic preferred candidates in most elections. However, Dr. Alford draws different conclusions by focusing on the party and race of the candidates, rather than on the preferences of the voters.
4. Dr. Alford argues that party, rather than race, explains the voting patterns that we observe in the racially polarized voting analysis. But, this observation does not change the simple fact that Black and Hispanic voters prefer different candidates than White voters. Race and party are fundamentally linked in American politics; the fact that groups exhibit partisan polarization does not cancel out or supersede racially polarized voting.
5. Dr. Alford also evaluates the performance of the current and illustrative 11th District by evaluating the number of minority candidates elected. In doing so, Dr. Alford analyzes performance by focusing on the candidates, not the preferences of Black and Hispanic voters. Racially polarized voting can occur even when the Black and Hispanic preferred candidate is White and the White preferred candidate is Black or Hispanic; the performance of the district is not based on the race of the victorious candidate, but on the performance of the Black and Hispanic preferred candidate.

Responses to Dr. Voss

6. Dr. Voss' report primarily focuses on racially polarized voting and ecological inference, the method used to estimate the percentage of each racial or ethnic group supporting each candidate in each election. Like Dr. Alford, Dr. Voss successfully replicated my analysis by using the data and computer code that I provided with my report.

7. Dr. Voss argues that I did not follow “scientific best practices” in my original expert report because, in the ecological inference models, I did not including covariates that may be used to “adjust” the models for “aggregation bias.”
8. Dr. Voss is correct that I did not use this element of the ecological inference model. The reason is simple: this is not standard practice in ecological inference analyses for racially polarized voting.
9. In my work as a testifying expert, I have utilized ecological inference models in twelve different cases prior to this matter. In all of these cases I used the standard ecological inference approach, which does not include additional covariates as Dr. Voss suggests should be done. No expert responding to my reports has ever raised the covariate and aggregation bias issue regarding my analyses. I also served as the racially polarized voting consulting for the Virginia Redistricting Commission, where I again used the standard model.
10. I have also had the opportunity to review the ecological inference analysis of other experts and scholars. Most notably, I have reviewed several reports by Dr. Alford. In his work, Dr. Alford uses the exact same standard ecological inference model, without covariates. For example, Dr. Alford conducted ecological inference analyses in *Bruni, et al. v. Hughs* (No. 5:20-cv-35) and *Williams, et. al., v. Hall* (1:23-CV-01057-TDS-JLW), using the standard model in both cases. Dr. Alford has reviewed and responded to at least four of my expert reports using ecological inferences. In no case has he suggested that these models should include covariates.
11. Other experts also use the standard model without covariates. For example, Dr. Sean Trende, analyzing racially polarized voting in Detroit in *Agee, et al. v. Benson.*, used the exact same ecological inference models as in my report in this matter.¹ Dr. Jonathan Katz, in *Bethune-Hill v. Virginia*, utilized similar ecological inference models, again without covariates.² I am not aware of any expert using Dr. Voss’ approach in redistricting litigation.³
12. In recently published peer-reviewed academic work in the *American Political Science Review*, the authors estimated racially polarized voting in every congressional district using ecological inference. In their public replication code they also employed the standard model, without covariates.⁴
13. In addition to this not being a standard practice in estimating racially polarized voting in redistricting litigation, Dr. Voss also fails to present and analyze the results of his own analysis. Dr. Voss states that he presents the results in Table 3, but he does not do so. Instead he erroneously reproduced the exact same results as in Table 1, but with a new caption describing his covariate models.
14. Additionally, in the caption to Table 3 (p.13), Dr. Voss reports that “More than half of my estimates are not outside of Dr. Palmer’s confidence intervals.” The double negative hides an important conclusion: more than half of his estimates are *inside* of the confidence intervals in my original report: in other words, for a majority of his estimates, he does not find that there are statistically significant differences between his results and my own.

15. Dr. Voss also fails to analyze his own results to identify how they impact the ultimate conclusion that there is racially polarized voting in the 11th Congressional District. While Dr. Voss presents averages in Table 4 (p.14) the lack of results for each individual election, with the appropriate confidence intervals, makes determining the frequency of racially polarized voting based on his report impossible.
16. Dr. Voss also suggests that my ecological inference models are misspecified because the turnout estimates produced by the models “did not make much sense.” Dr. Voss claims that the turnout results show a curious pattern where, for example, “Hispanics who showed up in 2022 and voted for attorney general and state comptroller supposedly sat out the senatorial election, and they supposedly preferred to vote for comptrollers and public advocates—in both 2017 and 2021—than they preferred to vote in the city’s mayoral election.” (p.17) Dr. Voss reaches this incorrect conclusion by failing to account for the uncertainty in the ecological inference models. In his results (Table 2, p.18), he excludes the 95% confidence intervals for each estimate, a surprising omission as he included these intervals in Tables 1 and 2 of his report.
17. To address this problem, I ran the ecological inference analysis again, saving both the turnout estimates and confidence intervals. Figure 1 and Table 1 present the results. In the figure, it is clear the confidence intervals for each estimate overlap within each election year. This is evidence that there are not statistically significant differences in estimated turnout across offices for each group and election year.
18. For example, consider Hispanic voters in the 2022 election, which which Dr. Voss highlights as evidence of a “flaw” in my analysis. The estimated turnout for Hispanic voters in the U.S. Senate election is 29.0 percent, and the estimated turnout for Hispanic voters in the State Comptroller election is 30.6 percent, for a difference of 1.6 percentage points.⁵ Even without considering statistical uncertainty, this difference is extremely small and not enough to draw meaningful conclusions about the validity of the models. But, including the confidence intervals shows that there is no evidence of any difference at all. The confidence interval for turnout in the U.S. Senate race ranges from 24.6 to 36.5 percent, and the confidence interval for the State Comptroller race ranges from 24.5 percent to 33.1 percent. These ranges substantially overlap, and each contains the turnout estimate for the other race. Dr. Voss’ other examples of potentially problematic turnout patterns—Black voters in 2021, 2022, and 2024, or Asian voters in general—show a similar lack of evidence of any differences in turnout across the ballot.
19. When the uncertainty in the estimates is taken into account, it is apparent that the pattern Dr. Voss observes is simply statistical noise, and not an indicator of any methodological error or instability in the results. In other words, Dr. Voss’ turnout analysis provides no evidence at all of “counterintuitive patterns” in voter turnout and ballot rolloff, nor any evidence of any potential problem with how the ecological inference analysis.

¹ *Agee, et al. v. Benson, et al.* (1:22-CV-00272-PLM-RMK-JTN), U.S. District Court for the Western District of Michigan.

² *Bethune-Hill v. Virginia* (3:14-cv-00852-REP-AWA-BMK), U.S. District Court for the Eastern District of Virginia.

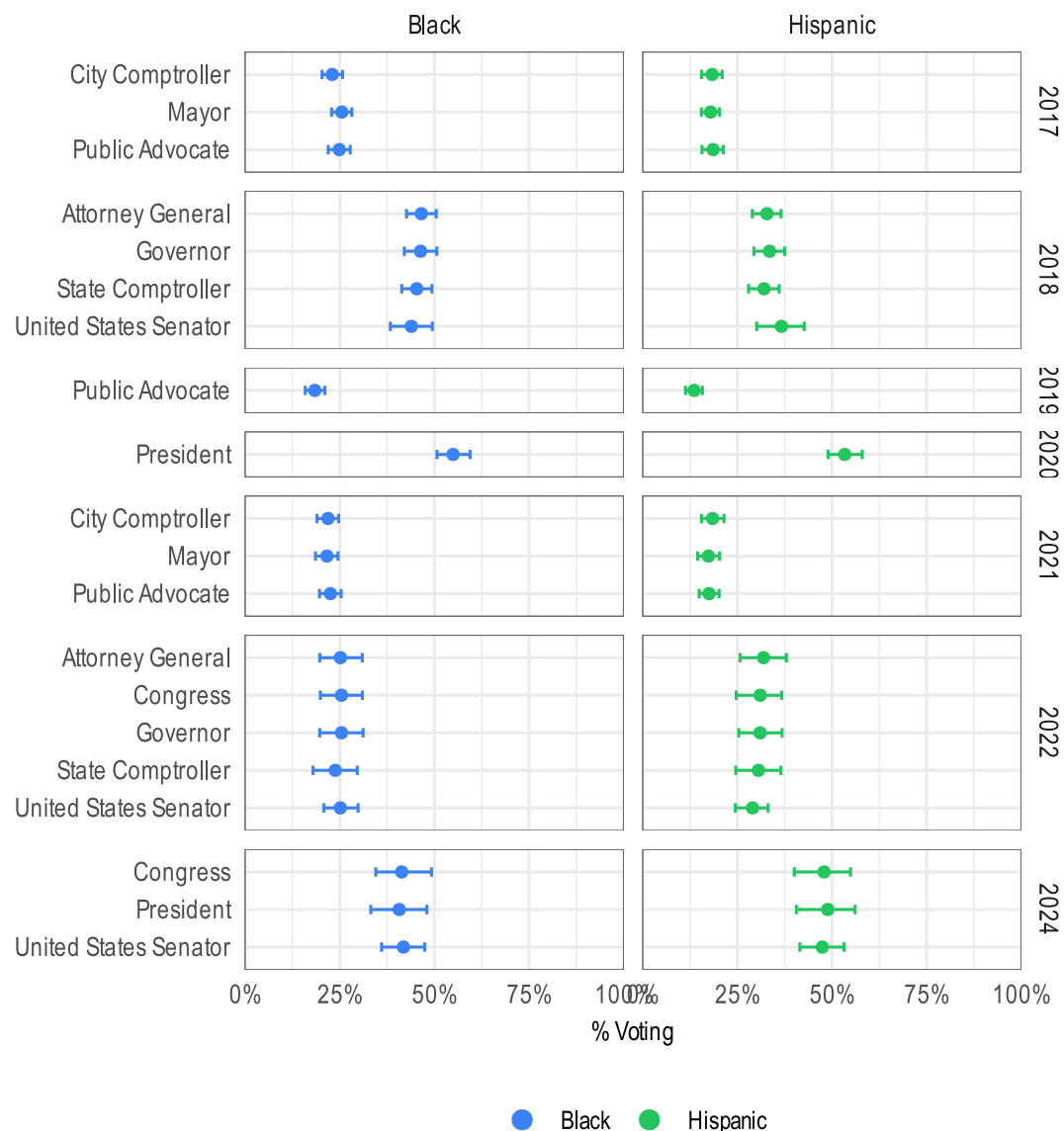


Figure 1: Turnout Estimates from Ecological Inference Models, CD 11

³In his discussion of turnout, Dr. Voss also suggests that I deliberately hid the turnout results in my ecological inference analysis. “Notably, Dr. Palmer did not report what his analysis was claiming about the relative mobilization of these social groups, and he specifically instructed his code (contrary to his package’s default) to hide the turnout part of his analysis (inserting an option to make it True that the turnout column would be deleted when the results were preserved).” (p.17) It is common practice to estimate turnout as part of the ecological inference analysis, but not report it when discussing racially polarized voting. Both Dr. Alford and Dr. Trende do this in their own analyses in the above cited cases.

⁴Kuriwaki, Shiro, Stephen Ansolabehere, Angelo Dagonel, and Soichiro Yamauchi. “The Geography of Racially Polarized Voting: Calibrating Surveys at the District Level.” *American Political Science Review*. Replication materials available at <https://doi.org/10.7910/DVN/MAZNJ6>.

⁵Note that my estimates are slightly different from Dr. Voss’, due to randomness in the ecological inference models.

20. A third issue raised by Dr. Voss concerns the scope of the analysis. Dr. Voss argues that analyzing racially polarized voting for a single district is not sufficient, and that the analysis should be conducted for the broader metropolitan area. While I disagree with Dr. Voss on the appropriate scope of the analysis, his report demonstrates that, in this instance, the scope does not matter. Dr. Voss conducts a single ecological inference analysis, using the 2022 election for governor, and covering most of New York City, and then uses that model to produce estimates at the congressional district level. In his results (Table 6, p.21) he finds that Black voters (95%) and Hispanic voters (75%) vote cohesively and share the same preferred candidate. White voters cohesively oppose the Black and Hispanic preferred candidate (20%). Dr. Voss' estimate for Hispanic voters differs from that in my original report, but the conclusion is the same: there is clear evidence of cohesion among and between Black and Hispanic voters, and polarization with White voters.⁶
21. Dr. Voss also presents results for the 2020 presidential election in the 5th, 8th and 9th Congressional Districts in Table 7 (p.21).⁷ In his discussion of these results, he writes that these districts show "similar polarization" as he found for these same districts for the 2022 gubernatorial election. However, these results show that White voters are closely divided between the two candidates, with support for the Democratic candidate ranging from 45.22% to 49.45%. White voters are not cohesive in their support for either candidate, and therefore this is not evidence of racially polarized voting in these districts in this election.

I reserve the right to supplement my report in this case in light of additional facts, testimony, and/or materials that may come to light.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge and belief.



Maxwell Palmer

Executed this 18th day of December, 2025, at Arlington, Massachusetts.

⁶Voss notes that he focused on the 2022 gubernatorial election in "the interests of time," and also estimated his models without covariates to be consistent with my results and to "produce results in a timely fashion." He states that "the analysis took more than 12 hours to complete." (p.19) Such computing issues do not make sense. I was able to run Dr. Voss' replication code for the 2022 gubernatorial election in 7 minutes and 36 seconds and his code for the 2020 presidential election in 7 minutes and 29 seconds, on a 2022 Mac Studio desktop computer using a single processor. Analyzing all of the relevant elections for this area should have been an easy task.

⁷Unlike in Table 6, he omits the results from the other congressional districts and fails to include confidence intervals on these estimates.

Table 1: Ecological Inference Results — Turnout — CD 11

		Black	White	Hispanic	Asian	Other
2017	City Comptroller	23.0% (25.7, 20.3)	31.4% (32.0, 30.8)	18.3% (21.0, 15.5)	3.8% (4.9, 2.8)	30.9% (40.3, 22.0)
2017	Mayor	25.5% (28.2, 22.8)	33.1% (33.6, 32.6)	17.9% (20.3, 15.5)	5.8% (7.0, 4.6)	32.9% (43.5, 22.5)
2017	Public Advocate	24.9% (27.8, 22.0)	30.9% (31.5, 30.3)	18.6% (21.3, 15.7)	5.0% (6.2, 4.0)	32.4% (43.2, 22.4)
2018	Attorney General	46.6% (50.5, 42.6)	42.2% (43.2, 41.4)	32.8% (36.5, 29.0)	13.9% (16.3, 11.5)	42.4% (55.4, 28.7)
2018	Governor	46.3% (50.6, 42.0)	43.0% (44.0, 42.1)	33.5% (37.5, 29.4)	14.5% (16.7, 12.2)	44.9% (59.1, 31.2)
2018	State Comptroller	45.3% (49.3, 41.4)	42.7% (43.6, 41.7)	32.0% (36.0, 28.0)	13.4% (15.8, 11.2)	43.1% (62.2, 23.9)
2018	U.S. Senate	43.9% (49.5, 38.4)	41.6% (42.8, 40.2)	36.7% (42.7, 30.1)	13.2% (15.9, 10.6)	53.1% (72.7, 34.2)
2019	Public Advocate	18.4% (21.1, 15.9)	17.2% (17.7, 16.7)	13.6% (15.8, 11.3)	4.7% (6.1, 3.6)	26.0% (36.8, 16.0)
2020	President	54.9% (59.4, 50.7)	64.4% (65.5, 63.2)	53.3% (58.0, 49.0)	34.4% (37.8, 31.0)	71.6% (84.8, 59.1)
2021	City Comptroller	21.9% (24.7, 19.0)	34.3% (35.0, 33.7)	18.4% (21.5, 15.5)	5.0% (6.0, 4.1)	32.1% (42.3, 22.7)
2021	Mayor	21.6% (24.5, 18.6)	36.1% (36.8, 35.5)	17.4% (20.3, 14.5)	4.9% (6.2, 3.9)	27.1% (37.6, 17.7)
2021	Public Advocate	22.5% (25.4, 19.7)	34.5% (35.1, 33.9)	17.5% (20.2, 14.9)	5.3% (6.5, 4.3)	28.4% (37.5, 19.8)
2022	Attorney General	25.2% (31.0, 19.7)	46.4% (47.8, 45.3)	31.9% (37.9, 25.7)	9.0% (12.1, 6.2)	42.3% (62.5, 20.7)
2022	Congress	25.5% (31.0, 19.9)	47.0% (48.3, 45.7)	31.0% (36.7, 24.7)	8.8% (11.9, 6.3)	49.3% (67.7, 27.7)
2022	Governor	25.5% (31.2, 19.7)	47.4% (48.7, 46.1)	31.0% (36.8, 25.4)	9.7% (12.7, 7.3)	44.4% (66.8, 26.3)
2022	State Comptroller	23.8% (29.6, 17.9)	46.6% (47.9, 45.3)	30.6% (36.5, 24.6)	8.9% (11.9, 6.5)	42.6% (65.4, 23.4)
2022	U.S. Senate	25.2% (29.9, 20.8)	47.7% (48.6, 46.7)	29.0% (33.1, 24.5)	7.9% (10.3, 5.6)	44.8% (58.8, 29.1)
2024	Congress	41.4% (49.2, 34.5)	62.1% (63.8, 60.7)	47.9% (54.9, 40.0)	17.0% (20.3, 14.1)	53.5% (72.3, 33.5)
2024	President	40.7% (48.0, 33.2)	63.3% (64.6, 61.8)	48.9% (56.1, 40.6)	19.8% (23.3, 16.4)	60.4% (89.2, 38.0)
2024	U.S. Senate	41.8% (47.4, 36.0)	61.6% (62.8, 60.2)	47.4% (53.2, 41.5)	20.4% (24.1, 16.3)	59.1% (79.4, 36.0)