

STATE OF NORTH CAROLINA  
COUNTY OF WAKE

IN THE GENERAL COURT OF JUSTICE  
SUPERIOR COURT DIVISION  
21 CVS 015426  
21 CVS 500085

NORTH CAROLINA LEAGUE OF  
CONSERVATION VOTERS, INC. et al.,

REBECCA HARPER, et al.,

COMMON CAUSE,

Plaintiffs,

v.

REPRESENTATIVE DESTIN HALL, in his  
official capacity as Chair of the House Standing  
Committee on Redistricting, et al.

Defendants.

**LEGISLATIVE DEFENDANTS'  
MOTION TO DISQUALIFY  
SAM WANG AND TYLER JARVIS  
AS ASSISTANTS TO THE  
SPECIAL MASTERS**

NOW COME President *Pro Tempore* Philip E. Berger, Senator Warren Daniel, Senator Paul Newton, and Speaker Timothy K. Moore (collectively, "Legislative Defendants"), by and through undersigned counsel, and pursuant to Rule 7 of the North Carolina Rules of Civil Procedure and the Court's inherent authority, move this Court for an order (1) disqualifying Sam Wang and Tyler Jarvis as assistants to the Special Masters; (2) requiring any work product completed by Wang or Jarvis to be immediately destroyed; (3) prohibiting the Special Masters from considering any information or materials obtained from Wang or Jarvis; and (4) requiring the Special Masters and their assistants to immediately produce any other communications they have had with third parties related to North Carolina redistricting. In support of this motion, Legislative Defendants respectfully submit the following:

1. On February 16, 2022, this Court entered an Order appointing three Special Masters to aid the Court in the remedial process: Robert F. Orr, Robert H. Edmunds, Jr., and Thomas W.

Ross. The Order also authorized the Special Masters “to hire research and technical assistants and advisors reasonably necessary to facilitate their work.” (February 16 Order at ¶ 3). Of specific import, the Order stressed that “Parties and non-parties may not engage in any *ex parte* communication with the Special Masters about the subject matter of this litigation.” (February 16 Order at ¶ 5(b)). The Order also required all parties submitting Proposed Remedial Plans to timely submit them by 5:00 p.m. on Friday, February 18, 2022.

2. On Friday, February 18 at 5:54 p.m., the parties were informed via email that the Special Masters would utilize four assistants in this process: Bernard Grofman, Tyler Jarvis, Eric McGhee, and Sam Wang.

3. On Sunday, February 20, 2022 at 3:12 p.m., Legislative Defendants were informed by counsel for *Harper* Plaintiffs for the first time that two of the appointed assistants, Tyler Jarvis and Sam Wang, engaged in substantive *ex parte* communications with Plaintiffs’ experts, Drs. Mattingly, Herschlag, and Pegden, both prior to and following their formal appointments as assistants, seeking advice regarding the data and information relating to this remedial phase.

4. First, on February 18, 2022 at 1:21 p.m., Sam Wang emailed Dr. Pegden disclosing that he had “been approached to evaluate the remedial plans for North Carolina” and sought data and information underlying Dr. Pegden’s analysis in the above-captioned case. Approximately one hour later, Dr. Pegden actively engaged Wang and provided substantive advice for Wang to use Dr. Mattingly’s method as a benchmark. A copy of the correspondence between Dr. Pegden and Wang is attached hereto as **Exhibit A**, including Wang’s follow up email seeking additional advice as to cluster-by-cluster analysis.

5. Similarly, on Friday, February 18 at 1:01 p.m., Wang reached out to Dr. Mattingly seeking advice regarding the underlying data supporting his report in the above-captioned matter.

Dr. Mattingly quickly responded within the hour, and gave his opinion as to the Court's remedial order. The correspondence continued through the weekend, with Dr. Mattingly acknowledging that "the court order forbids [him] from engaging with the special masters team," but then went on to clarify an "error" in his initial correspondence. A copy of the correspondence between Dr. Mattingly and Wang is attached hereto as **Exhibit B**.

6. Lastly, Tyler Jarvis contacted Dr. Herschlag on Saturday, February 19 and engaged in substantive conversations regarding Dr. Herschlag's analysis and underlying data supporting his report in the above-captioned matter. A copy of the correspondence between Dr. Herschlag and Jarvis is attached hereto as **Exhibit C**.

7. Wang and Jarvis did not copy any counsel of record or the parties in their correspondence with Drs. Pegden, Mattingly, and Herschlag.

8. To the best of Legislative Defendants knowledge, Wang and Jarvis only reached out to Plaintiffs' experts.

9. Special Masters were prohibited from having *ex parte* communications with the parties. (See February 16 Order at ¶ 5(b)). This prohibition would be meaningless if it did not also apply to their "agents." Certainly, a Special Master who is prohibited from having *ex parte* communications cannot evade the requirements of this rule by directing his assistant to make those communications for him. And if the assistant made *ex parte* communications without the permission of the Special Master, this would indicate that the assistant had exercised his own discretion to have *ex parte* communications, a procedure that the Special Master cannot directly make without violating the court's Order. Moreover, the reasons to prohibit *ex parte* communications includes the need for transparency and equal treatment of the parties. The communications disclosed by the *Harper* Plaintiffs' counsel already show that the process is

tainted and that the Special Master's assistants intend to rely on Plaintiffs' experts for privately conveyed information as opposed to public flings that are available to the parties and the public.

10. Courts routinely rely on Special Masters in redistricting litigation to provide impartial guidance on complex, public issues. Allowing Wang and Jarvis to engage in *ex parte* communications here would be the equivalent of the *Covington* court relying on Dr. Persily's Report if his research assistants had directly reached out to either Plaintiffs or Defendants experts to assist in writing the Report that the court relied upon. That did not happen in *Covington*, and should not happen here.

11. Allowing Wang and Jarvis to continue as assistants to the Special Masters would prejudice Legislative Defendants. Specifically, seeking information only from Plaintiffs' experts in a one-sided *ex parte* project will bias the assistants, the Special Masters, and possibly the Court. This conduct is inappropriate for individuals appointed by the Court to assist their impartial review.<sup>1</sup>

12. Keeping Wang and Jarvis on as assistants to the Special Masters will cast a pall on the impartiality of these proceedings. Nor would it be the first time that Professor Wang's actions raised issues as to transparency and impartiality. For example, just recently Professor Wang and his Princeton Gerrymandering Project were the subject of allegations in a lawsuit alleging improper contact and with a member of the New Jersey Redistricting Commission.<sup>2</sup>

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<sup>1</sup> In fact, Wang displayed prejudice before his appointment as an assistant to the Special Masters against Legislative Defendants as he tweeted a criticism of Legislative Defendants' expert Dr. Barber during trial in this very matter. See <https://twitter.com/SamWangPhD/status/1478192492432535558>.

<sup>2</sup> See *In re Establishment of Congressional Districts by the New Jersey Redistricting Commission*, No. 086587, ¶ 34 (Feb. 3, 2022), <https://www.njcourts.gov/courts/assets/supreme/R3-21.pdf?c=1SK>; *Claiming partisan fairness models are proprietary, Princeton Gerrymandering Project won't show their work*, New Jersey Globe (Jan. 27, 2022), <https://newjerseyglobe.com/redistricting/claiming-partisan-fairness-models-are-proprietary-princeton-gerrymandering-project-wont-show-their-work/>; see also *New congressional voting map reignites calls for redistricting reform*, NJ Spotlight News (Feb. 1, 2022), <https://www.njspotlightnews.org/2022/02/nj-new-congressional-voting-map-redistricting-reform-new-jersey-supreme-court-republicans-object/>.

13. The interests of justice require disqualification of Wang and Jarvis in this pending matter of public interest.

WHEREFORE, for the foregoing reasons, Legislative Defendants move the Court to enter an Order:

1. Disqualifying Sam Wang and Tyler Jarvis as assistants to the Special Masters;
2. Requiring any work product completed by Wang or Jarvis to be immediately destroyed;
3. Prohibiting the Special Masters from considering any information or materials obtained from Wang or Jarvis;
4. Requiring the Special Masters and their assistants to immediately produce any other communications they have had with third parties related to North Carolina redistricting;  
and
5. Granting any further relief as this Court deems necessary and just.

Respectfully submitted, this the 21st day of February, 2022.

/s/ Phillip J. Strach

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**CERTIFICATE OF SERVICE**

It is hereby certified that on this the 21st day of February, 2022, the foregoing was served on the individuals below by email:

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# **Exhibit A**

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**From:** "Samuel S. Wang" <[sswang@princeton.edu](mailto:sswang@princeton.edu)>  
**Sent:** February 19, 2022 6:59:24 AM EST  
**To:** Wesley Pegden <[wes@math.cmu.edu](mailto:wes@math.cmu.edu)>  
**Subject:** Re: North Carolina ensemble analysis

Dear Wes,

That's a good point. I forgot that what you do is explore the space around a specific plan. Sorry to be spacey that way.

I am requested to evaluate the remedial plans, focusing on the eight statewide plans from Harper plaintiffs, NCLCV, and the Legislative Defendants. I think Common Cause's single districts and the Democrats' single-cluster alternatives are secondary, though I am pondering them.

I wrote Mattingly too. He thinks ensembles are not at the heart of the court's thinking. If the court wants partisan-fairness metrics (mean-median difference, efficiency gap, etc.) that is certainly easier for me to write about. It's more in the territory of turning measures and statistical tests into legally comprehensible concepts, which is more in my usual zone. I am kind of old-fashioned that way.

Cluster-by-cluster analysis...the statistical measures aren't suited for that, right? I wonder what I would do there. Maybe just a simple table of safe D/competitive/safe R?

Best,  
Sam

>>>>

Prof. Samuel S.-H. Wang  
Neuroscience Institute, Washington Road

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**From:** Wesley Pegden <[wes@math.cmu.edu](mailto:wes@math.cmu.edu)>  
**Sent:** Friday, February 18, 2022 2:31 PM  
**To:** Samuel S. Wang <[sswang@princeton.edu](mailto:sswang@princeton.edu)>  
**Subject:** Re: North Carolina ensemble analysis

Hi Sam!

I can certainly send you a bunch of histograms (and in any case all of the reports from that case are a matter of public record), but I think as a benchmark to compare to, it is more sensible to compare to a method like Mattingly's which has the design goal of generating a representative sample.

(Since my method is aimed instead at detecting optimization by testing sensitivity to perturbation, it is not actually a design goal of the algorithm that the distribution of partisan outcomes of the comparison districtings are globally representative of the distribution of all maps, and for various reasons you expect that if you used my histograms as proxies for a representative sample, you would underestimate the extent to which the enacted map is truly gerrymandered; i.e., my comparison maps tend to be more similar to the map they are being used to evaluate than a truly random map would be).

For example, in my reports, I even caution against making comparative statements about one cluster vs another of the same districting, i.e., I discourage concluding, e.g., that cluster A is more gerrymandered than cluster B because A is a more statistically significant outlier; instead, the right interpretation is that my method is better able to generate rigorous evidence that A is an outlier.

So generally I would use caution using the results in this way (especially in an analysis that was not using the same implementation of the Markov chain). For example, I have testified multiple times that my method is not an appropriate way to demonstrate that a districting is not gerrymandered.

(Have you been asked to analyze the districting cluster-by-cluster or just at the whole state level?)

-Wes

On 2/18/22 13:21, Samuel S. Wang wrote:

> Hi, Wes. I wonder if you can help me out.

>

> I've been approached to evaluate the remedial plans for North Carolina.

> A very useful benchmark would be the analysis you have done. Is it

> possible to get the histograms of the analysis you've done? That would

> allow a direct apples to apples comparison, which the court might like.

>

> Best,

> Sam

>  
> >>>>  
>  
> Prof. Samuel S.-H. Wang  
>  
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>  
> Sam's election analytics:[election.princeton.edu](http://election.princeton.edu)  
> <<http://election.princeton.edu/>>  
>  
>  
> Sent from my iPhone

--

Sent from my Android device with K-9 Mail. Please excuse my brevity.

# **Exhibit B**

**From:** "Samuel S. Wang" <[sswang@princeton.edu](mailto:sswang@princeton.edu)>  
**Date:** February 20, 2022 at 10:23:45 AM EST  
**To:** Jonathan Mattingly <[jonm@math.duke.edu](mailto:jonm@math.duke.edu)>  
**Subject:** Re: Histogram data

In light of this, I will not write about ensembles at all. For the record, I feel that mainly you pointed me towards publicly posted files.

>>>>

Prof. Samuel S.-H. Wang  
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Sent from my iPhone

On Feb 20, 2022, at 9:59 AM, Jonathan Mattingly <[jonm@math.duke.edu](mailto:jonm@math.duke.edu)> wrote:

Sam,

I did not know you were working with the special master. I have been told that the court order forbids me and greg from engaging with the special masters team. It makes sense as you are to be at arms-length and we are associated with the plaintiffs.

I will clarify one error I made in my first email. I meant to point you to the "No Municipality" ensemble not the incumbency plots. This is the primary for the house and the secondary for the Senate.

If we have been miss informed about interacting with the special master, please let us know. This is what counsel has told us.

Jonathan

On Feb 19, 2022, at 7:10 AM, Samuel S. Wang <[sswang@princeton.edu](mailto:sswang@princeton.edu)> wrote:

Hi, Jonathan.

Thinking about one of your points, I will mostly focus on scalar statistical measures such as mean-median difference and so on. There is plenty to think about there. The special masters have also contacted Tyler Jarvis to work on ensemble analysis, which is a more natural fit.

My group has generated its own histograms. We have our own ensembles, based on 2020 election data. It is a small fraction of what you and Herschlag have done, but maybe it will do for my purposes.

I am going through your Github today. If you can point me toward a file in there that corresponds to the histograms in Figures 5.1.1 and 5.2.1, that would be helpful. It would also orient me inside your Github!

Best,  
Sam

From: Jonathan Mattingly <[jonm@math.duke.edu](mailto:jonm@math.duke.edu)>  
Sent: Friday, February 18, 2022 1:57 PM  
To: Samuel S. Wang <[sswang@princeton.edu](mailto:sswang@princeton.edu)>  
Subject: Re: Histogram data

Hi sam,

Which histograms in particular? Do you mean like page 19? There are a lot of histograms.

Notice there are two different ensembles for the house and senate. One which is more strict about preserving municipalities. The court order doesn't seem to valorize that one as much. In general it is not clear that comparing the ensembles is as relevant given that the court asked about partisan symmetry and other measure which the ensemble should be judged. A new ensemble could/should be generated or the old one could be filtered (maybe)

Here is most of our data is here:

<https://git.math.duke.edu/gitlab/gjh/ncanalysis2020>

Jonathan

From: "Samuel S. Wang" <[sswang@princeton.edu](mailto:sswang@princeton.edu)>  
Date: Friday, February 18, 2022 at 1:01 PM  
To: Jonathan Mattingly <[jonm@math.duke.edu](mailto:jonm@math.duke.edu)>  
Subject: Histogram data

Hi, Jonathan. How are you?

I have been asked to help evaluate the remedial maps produced by the North Carolina General Assembly. I wonder if you are willing to share the outputs of the ensemble analysis that went into your expert report. Specifically, I seek the numbers that went into the histograms. Is that possible?

I have read your report (and the other reports) with interest, and am studying up to make sure I do not miss anything. There is a lot of expert testimony here, which is good.

Best,  
Sam

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# **Exhibit C**

----- Forwarded message -----

From: **Tyler Jarvis** <[jarvis@math.byu.edu](mailto:jarvis@math.byu.edu)>  
Date: Sat, Feb 19, 2022, 9:33 PM  
Subject: Re: quick question about data  
To: Gregory Herschlag <[gjherschlag@gmail.com](mailto:gjherschlag@gmail.com)>

Thank you! I really appreciate your taking time to answer so quickly.

On Sat, Feb 19, 2022 at 7:26 PM Gregory Herschlag <[gjherschlag@gmail.com](mailto:gjherschlag@gmail.com)> wrote:

1. Primary in the senate: `mcd_on_1`  
Secondary in the senate `mcd_on_0`

Primary in the house: `primary`  
Secondary in the house: `mcd_on_1`

2. Convergence study was the same in the congressional. Only a subset of the full convergence study was shown in the report

On Sat, Feb 19, 2022, 9:04 PM Tyler Jarvis <[jarvis@math.byu.edu](mailto:jarvis@math.byu.edu)> wrote:  
Thank you so much! This is very helpful.

I have two more quick follow-up questions, if you have time:

1. Jonathan talks about a "primary" and a "secondary" ensemble in his expert report. It sounds like the `mcd_on_1` is what he called "primary" and `mcd_on_0` is what he called "secondary"? And the third tuned ensemble for the house is the one in the directory called `primary`?

2. I couldn't see anything in Jonathan's expert report about convergence of the congressional ensemble--there's a section header, but I see no text or plots. Can you tell me anything about the convergence of that ensemble? I assume you also used parallel tempering with an independent sample reservoir. Were results similar to the convergence of the legislative ensemble?

Best,  
Tyler

On Sat, Feb 19, 2022 at 6:47 PM Gregory Herschlag <[giherschlag@gmail.com](mailto:giherschlag@gmail.com)> wrote:  
Hi Tyler,

Nice to hear from you. To answer your question, the `mcd_on_0` and `mcd_on_1` ensembles refer to whether or not municipalities were considered when drawing the ensembles. These ensembles were developed before the now-overturned maps came out. We found that the `mcd_on_1` ensemble had similar municipal splitting to the senate map, but the house plan split municipalities more than our `mcd_on_1` ensemble but less than our `mcd_on_0` ensemble, so we tuned a third ensemble here to reflect the amount of municipal splitting seen in the house map.

Hope this helps! Let me know if not or if you have other questions,  
Greg

On Sat, Feb 19, 2022 at 8:13 PM Tyler Jarvis <[jarvis@math.byu.edu](mailto:jarvis@math.byu.edu)> wrote:  
Dear Greg,

I am sorry to bother you on a long weekend, but I have been asked to help evaluate the remedial maps for the North Carolina special masters on a very short deadline.

Because there is no time for my team to generate large ensembles that meet the clustering and other criteria specific to North Carolina, I was directed by the masters to [your ensemble data](#) and to Jonathan's [expert report](#).

I would be extremely grateful if you could help clarify one thing about the data.

From Jonathan's report I understand that you ran both a Primary and a Secondary ensemble with different properties, especially in regard to splitting municipalities. Sam Wang tells me that Jonathan thinks the court didn't really valorize the secondary ensemble, so it might make sense to focus on the primary ensemble.

I assume that both these ensembles are in the directory `observables/electionResults/`, but I am not sure which subfolder corresponds to which ensemble. Specifically, in the senate you have just two directories: `mcd_on_0` and `mcd_on_1`, whereas in the house you have three directories: `mcd_on_0`, `mcd_on_1`, and `primary`, so it is not entirely clear which is primary and secondary of these three.

Thanks again for any help you can provide.

Best,  
Tyler