

# EXHIBIT B

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF GEORGIA  
ATLANTA DIVISION**

DONNA CURLING, *et al.*

*Plaintiffs,*

v.

BRAD RAFFENSPERGER, *et al.*,

*Defendants.*

CIVIL ACTION

FILE NO. 1:17-cv-2989-AT

**DECLARATION OF DR. BENJAMIN ADIDA**

Pursuant to 28 U.S.C. § 1746, I, DR. BENJAMIN ADIDA, make the following declaration:

1. My name is Benjamin Adida. I am over the age of 21 years, and I am under no legal disability which would prevent me from giving this declaration. If called to testify, I would testify under oath to these facts.

2. I am the co-founder and Executive Director of VotingWorks. I hold a PhD in cryptography and information security from MIT, specializing in election security, a Postdoctoral Fellowship from Harvard University on the same topic, and I was on the Faculty at Harvard from 2008 to 2011. In addition to my academic work, I have extensive experience building secure systems in industry for both the non-profit and for-profit sectors. I led web

authentication at Mozilla, the makers of the Firefox web browser, from 2011-2013, product engineering at Square, the payments platform, from 2013-2015, and was VP Engineering at Clever, the secure K-12 learning platform used in over half of US schools. I specialize in the development and deployment of advanced, usable, security & privacy technology.

3. VotingWorks is a non-profit organization that assists jurisdictions with training and implementing risk-limiting audits. VotingWorks is a non-profit vendor of election auditing technology and, more recently, voting systems, in the United States. We offer affordable, open-source, commercial-off-the-shelf (COTS) voting equipment, including accessible ballot-marking devices and hand-marked paper ballots (the VotingWorks system is still in the process of being certified under the VVSG Standards). We also provide open-source software—which can be verified for accuracy by other experts—and training services to states to help them pilot and run risk-limiting audits, which is our most prominent activity to date. In addition to our considerable experience designing and assisting jurisdictions in the implementation of RLAs, we also work in close collaboration with other organizations promoting RLAs across the country, including Verified Voting, the Brennan Center for Justice at NYU, Common Cause, and the Democracy Fund.

4. The National Academies report of 2018, *Securing the Vote*, clearly lays out voter-verifiable paper ballots and post-election audits as the two pillars of election integrity. Now that a voter-verifiable paper trail is available in Georgia, we have been able to work with the State on post-election audits, whose role is to ensure that paper ballots that have been verified by the voter are properly counted as the voter saw them.

5. A risk-limiting audit (RLA) is a type of post-election tabulation audit that examines a random sample of voter-verifiable paper ballots to produce strong evidence that, if a full hand-count were performed on the paper ballots, that recount would yield the same winner as originally reported by the ballot scanners. An RLA also provides that, if sufficient evidence of a correct outcome is not discovered, the audit will expand into a full hand recount such that the true winner can be determined. Running a risk-limiting audit is one of the most important advances states can take in improving election integrity – without an RLA, we are effectively trusting computerized scanners to count our paper ballots.

6. Thus, it is of the utmost importance, for the sake of election integrity across the country, that states take meaningful steps to implement RLAs, so that the public may trust that their votes have been properly tabulated.

7. Though RLAs were first invented in 2007 and piloted extensively under a federal grant program implemented by the U.S. Election Assistance Commission (EAC) in 2010, the first state-wide RLA was not conducted until Colorado made history in 2017. Colorado's process continues to evolve and improve with each successive election. Though many of the lessons learned in Colorado have enabled much faster deployments of RLAs elsewhere, Colorado's program is not broadly generalizable to the rest of the country, since few other states have fully centralized ballot tabulation systems.

8. The deployment of RLAs is challenging. A carefully coordinated process between the state and its local jurisdictions is required, and a careful workflow must be followed for the results to be valid. Those processes will vary from state to state and from county to county. They must be carefully designed and practiced for an audit to be successful. Especially for states and counties that have recently moved to using paper ballots, the design of ballot custody and reconciliation processes is new and often difficult. Piloting RLAs prior to full implementation helps identify needed changes in election processes and familiarizes election officials with the proper procedures.

9. VotingWorks specializes in the implementation of risk-limiting audits. We understand the process, we teach it to election officials, and we help them implement it. With funding from the Department of Homeland

Security, we have developed and continue to improve Arlo, the only software available to run state-wide risk-limiting audits outside of Colorado's custom-built system. Earlier this year, we helped Rhode Island become the newest state to run a binding statewide RLA, and we helped run successful statewide RLA pilots in Michigan and Pennsylvania. We have also helped election officials in California, Georgia, Virginia, Missouri, New Jersey, and Ohio run smaller RLA pilots.

10. In our extensive experience deploying RLAs, we have found that it is important to start by piloting the audit in a small number of jurisdictions. These RLA pilots serve to troubleshoot and improve the ballot custody and reconciliation processes upon which the RLA depends, as well as train election officials across the state in the mechanics of running an RLA. Only after piloting can a state be expected to run a statewide RLA that can ensure that the correct winner was declared. In our experience, hiccups and imperfections are to be expected when a state runs their initial RLA pilots. In fact, that is the entire point of piloting: to improve election integrity by finding the imperfections and fixing them. We also knowingly make a number of concessions in pilots that we would not make in an official, binding audit, simply to make the pilots possible. We are careful to note these adjustments and discuss how the pilots differ from a true RLA. Perfection is

not the goal of an RLA pilot; these are learning experiences, with a goal of continuous improvement. Implementing an RLA without this extensive preparation and piloting is strongly inadvisable, as the inevitable hiccups that occur when deploying any auditing process for the first time could, in and of themselves, cause unwarranted mistrust of the election outcome, the opposite of the intended effect.

11. VotingWorks has assisted the Georgia Secretary of State's office over the past year with the development of the statewide RLA process for Georgia. That included several pilots and providing assistance with drafting the State Election Board rule, modeled off of the Rhode Island statute, that is now out for public comment. The State Election Board rules capture the experience gained from the pilots and our input about the design of the RLA, as well as the experiences of other states who are also implementing RLAs.

12. One important benefit of RLAs is that they protect against any malfunction or hack of the QR code on ballots produced by ballot-marking devices. As long as voters verify the text, and as long as RLAs are conducted on the basis of the same ballot text (such as is required by Georgia's proposed rule), then potential QR code mismatches are caught just like any other tabulation mistake might be caught. A successful RLA thus provides strong

evidence that, if there were QR code mismatches, they did not affect the outcome of the election.

13. I explained this situation in detail in a recent expert panel at USENIX Security in early August 2020. Every RLA VotingWorks has helped conduct uses the human-readable text, not the QR code, as the measure of voter intent. Thus, RLAs that VotingWorks supports protect against QR-code mishaps.

14. RLAs are, after paper ballots, the second most important measure states can take to bolster their election integrity. For the 2020 general election, VotingWorks hopes to see as many as 10 states run risk-limiting audits. Those states will have already run pilots, designed and tested their paper-ballot-handling flows, and prepared themselves to run a meaningful and efficient risk-limiting audit. While these audits shouldn't be expected to run perfectly from the start, their deployment remains one of the shining examples of improved election integrity through research and technology transfer.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed this 28th day of August, 2020.



A handwritten signature in black ink, appearing to read 'Benjamin Adida', with a long horizontal flourish extending to the right.

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BENJAMIN ADIDA, Ph.D.