

March 13, 2018

The Honorable Bryan Hughes Chairman of the Senate Select Committee on Election Security P.O. Box 12068 Capitol Station Austin, TX 78711

The Honorable Jane Nelson Chairman of the Senate Select Committee on Cybersecurity P.O. Box 12068 Capitol Station Austin, TX 78711

Dear Chairman Hughes and Chairwoman Nelson:

I write to thank Chairman Hughes for his leadership on the critical issue of election cybersecurity, and to encourage Chairwoman Nelson to build on this momentum at the upcoming hearing of the Senate Select Committee on Cybersecurity. Now is the time to, as Chairman Hughes pledged at the recent Senate Select Committee on Election Security hearing, "mak[e] any changes . . . to ensure Texas is still leading on voting security and integrity." To this end, it is critical that your respective committees continue to engage with experts on cybersecurity, national security, and elections infrastructure.

My name is Dan Wallach. I have been a professor of computer science at Rice University, in Houston, Texas, for twenty years. My research considers a variety of computer security topics and I have published over 100 papers in the field. Among other honors, I recently served from 2011 to 2015 on the Air Force Science Advisory Board. I testified before the Senate Select Committee on Election Security's hearing on February 22, 2018, and I would be happy to offer my expertise to the Cybersecurity committee as well.

As Chairman Hughes noted at his Committee's February 22 hearing, "there are few rights more precious—more fundamental—than that right to vote. And it's only as good as the trust that folks can place in it." Both the Texas and the U.S. Constitutions place primary responsibility for administration of that fundamental right with the State, and in particular, the State Legislature. I applaud Chairman Hughes's commitment to fulfill that duty by taking a "thorough look" at risks to our State's voting processes and infrastructure, and I encourage Chairwoman Nelson to ensure that election cybersecurity is an integral part of her committee's work and included in the recommendations required by the Texas Cybersecurity Act.

Headlines shortly after the Committee on Election Security hearing made clear that shoring up Texas's voting security—and thus, Texans' faith that their fundamental right will be protected—is both vital, and perhaps one of the biggest challenges facing the State today. In his testimony before the U.S. Senate last week, Admiral Mike Rogers, head of the National Security Administration and

U.S. Cyber Command, warned that Russia remains determined to disrupt elections across the United States. The federal government, he testified, "is probably not doing enough" to stop them. The next day, reports emerged that Russian hackers compromised the voter databases and/or websites of seven states, including Texas. While some state officials reported seeing no evidence of this compromise, good hackers do not always leave fingerprints. We may never know the scope of any digital breakin—but widespread reporting of it, along with public knowledge of election infrastructure weaknesses, does great damage to the public's faith that Texas elections are secure. With your leadership, however, the Legislature has an opportunity to restore that faith and make Texas a leader in secure, accurate elections.

As I testified on February 22, there are several key areas upon which the Legislature must focus, if Texas elections are to be made more secure:

- Texas's voting technology is aging. We would not expect a laptop or software program from over a decade ago to be reliable or secure today—but that is exactly what Texas is doing by using aging and in some cases obsolete voting systems. Texas needs a plan for the orderly and expeditious retiring and replacing of its elections infrastructure.
- Before the State spends precious resources on replacement technology, it must establish
  standards for new equipment and backend data systems, including voter registration
  databases, that are both protective and practical. Standards must come before any money is
  spent on new systems. At a minimum, new voting systems must include the capacity for paper
  auditing. Separating hardware from software, such that replacing or updating one does not
  require replacing or updating the other, also would have substantial cost and security benefits
  relative to the current market for voting equipment.
- The Secretary of State needs sufficient authority to oversee this modernized elections landscape, and county officials need both logistical and technical support in order to administer elections securely. By placing additional resources with the Secretary's Elections Division to support these functions, every Texas county can benefit.

Through enactment of smart and necessary reforms like these, Texas can make news for its leadership in election security, and Texans can be confident that their votes are counted. I commend your commitment to these goals and stand ready to lend my expertise to support them. The security of Texas elections depends on your leadership, and on your committees' continued focus on implementing best practices for election security statewide. Your work could not be more important, or more timely.

Sincerely,

Dan S. Wallach