

# Potential of a Federal Ballot

Modernizing Election Infrastructure for Cost & Security



January 2020

## About the OSET Institute

The Open Source Election Technology (“OSET”) Institute is a 501(c)(3) tax-exempt nonpartisan, nonprofit election technology research corporation chartered with research, development, and education in election technology innovation.

The Institute’s flagship effort, the [TrustTheVote™ Project](#) is a democracy software foundry that is building [ElectOS™](#), a next generation higher integrity, lower cost, easier to use election administration and voting technology framework freely available for any election jurisdiction to adopt, and have professionally adapted and deployed. ElectOS and all open source election technology is being designed and engineered per the requirements and specifications of election officials, administrators, and operators through a Request For Comment (RFC) process.

As part of our research, development and education mission, from time to time, the Institute produces Briefings and other content to inform stakeholders, supporters, and the public about issues of election technology innovation and integrity.

# *Threats to our election administration technology infrastructure are inherently threats to our democracy*

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## Preface

The OSET Institute was founded with a mission to increase confidence in elections and their outcomes in order to preserve democracy everywhere. Our work naturally flows from that: innovation in election technology to increase integrity, lower cost, improve usability, and ultimately improve participation. There are many technologies necessary to innovate Election Infrastructure.

Election Infrastructure, being one sector of Critical Infrastructure means that research the Institute performs for Election Infrastructure innovation can have application to Critical Infrastructure in general. Occasionally, the OSET Institute presents research and policy thinking about technology that has application across all sectors of Critical Infrastructure, and without regard to election administration, specifically.

More often, however, the Institute prepares and presents research and policy thinking, including recommended principles and practices—from design to engineering through to development and implementation. We do so with a user-centered design approach with a security-centric engineering mandate.

85% of the Institutes activities are in democracy software development. The Institute's fiscally sponsored [TrustTheVote™ Project](#) is working on a public technology framework called [ElectOS™](#). This framework is based on several principles and best practices and is designed to be a generational platform capable of supporting innovations in all aspects of election administration and voting. A fundamental principle provided by stakeholders is the necessity of a *paper ballot of record*. It has been said, "*The ballot is the currency of representative democracy.*" Therefore, ElectOS fully embraces the principle of a paper ballot of record. That, combined with the ever-pressing needs to increase security and lower operating costs of election administration urged the author into pondering how we might better achieve that, which began during a conversation in the Spring of 2018 with [Steven J. Ricchetti](#), (then) of the Penn-Biden Institute for Diplomacy and Global Engagement and former Chief of Staff to Vice President Biden.

Now, wandering gently into the activist and political arguments about federal interest versus states' rights in the administration of elections, this paper examines the potential of a by-mail, centrally counted (under states' control) federal-only ballot for national elections.

We do not make a specific recommendation for or against such a concept; rather the goal of this paper is to catalyze conversation about the potential for such an initiative to achieve two, and only two objectives:

1. Increase the security of national elections by altering and lowering the attack surface and thus, the required services to secure national elections; and
2. Markedly lower the costs of election security.

That is, in sum and substance, the goals that guide this proposal and its discussion herein by [Gregory Miller](#), OSET Institute *Co-founder & Chief Operating Officer*, who is both a computer technologist and technology lawyer. This paper would not be possible without the research and drafting assistance efforts of [Dennis Mema](#), technology policy analyst for the Institute and degree candidate at the University of Connecticut, Spring 2020.

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## Executive Overview

Before the year 2000, it appeared that federal elections in the United States were a reasonably reliable process, and relatively successful in successful outcomes.<sup>1</sup> After the election of 2000, it became clear that there are glaring issues in the administration of elections. Some of these problems were left to fester, and while many states have worked hard to improve their election infrastructure in the time since, 2016 brought with it an entirely different spectrum of problems. Questions of election security and integrity damaged voter confidence and have worried elections administrators in the years since. The scale of the 2016 election breach was unknown to the public until the damage was presented in early 2019, with Robert Mueller's *Report on the Investigation into Russian Interference in the 2016 Presidential Election*. The Office of the Special Counsel found evidence that millions of voters' data was examined at least (extracted at worst), and that Russian-affiliated agents targeted insecure election administration occurring at offices across the country in an effort to undermine public trust, and our election system writ large.<sup>2</sup> In January of 2017, in the aftermath of efforts to wreak havoc on the American election system, election technology as deployed systems was designated, under the Department of Homeland Security, as a Critical Infrastructure subsector.<sup>3</sup>

Finally, and most importantly, on the 5<sup>th</sup> of November last year (2019) a joint statement from DOJ, DOD, DHS, DNI, FBI, NSA, and CISA on Ensuring Security of 2020 Elections was issued reinforcing their forecast that "Russia, China, Iran, and other foreign malicious actors will seek to interfere in the voting process" in the upcoming 2020 election cycle.<sup>4</sup> With a newly-honed federal priority to protect future elections, there has been an increase in spending and assistance towards the election security of states which request it, as well as an effort to find solutions to better insulate elections from the possibility of security-compromise.

A possible solution for the existential threat to securing national elections is implementation of a separate paper ballot for federal elections, all by mail, and administered by the states. According to proponents, this system would minimize the surface area of attack on elections and greatly improve cybersecurity.

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<sup>1</sup> By the standards of 2000 and forward, 20th-century federal elections were almost always quite orderly, and while both claimed and real local level election irregularities were part of the fabric of US elections, Federal elections largely escaped the taint that resulted from flawed local elections.

<sup>2</sup> Mueller, Robert S. *Report on the Investigation into Russian Interference in the 2016 Presidential Election: Submitted Pursuant to 28 C.F.R. §600.8(c)*. Office of the Special Counsel. The United States Department of Justice. April 18, 2019. Vol. 1, 1-5.

<sup>3</sup> "Statement by Secretary Johnson on the Designation of Election Infrastructure as a Critical Infrastructure Subsector." Department of Homeland Security. January 6, 2017. Accessed August 16, 2019. <https://www.dhs.gov/news/2017/01/06/statement-secretary-johnson-designation-election-infrastructure-critical>.

<sup>4</sup> <https://www.dhs.gov/news/2019/11/05/joint-statement-doj-dod-dhs-dni-fbi-nsa-and-cisa-ensuring-security-2020-elections>

Supporters argue that ensuring the security of 51 central ballot counts would prove far simpler than raising the security of almost 8,000 local election offices scattered throughout over 3,100 counties in the United States. Advocates for the shift also argue a centralized ballot-count system within each state would also cost a fraction of the estimated costs to improve cybersecurity and effectiveness of local election operations, in the current model of locally operated Federal elections. To be sure, there are challenges to implementation of such a system; by separating federal and state-level ballots, some argue that the practice of down-ballot voting could all but vanish given a separate state-specific ballot for the balance of an election, and state/local elections could suffer from a far smaller number of voters.

To weigh these claims against one-another, this paper considers the practicality, security, and costs of a federal ballot. Even if such an overhaul's benefits outweigh the detriments, the ability to enact any change relies on the constitutionality of any legislation making these modifications.

The legality of a vote-by-mail separate federal ballot is a question that cannot be answered by looking one-dimensionally at the Constitution, or legislation passed by Congress. These, in tandem with the intent of the Framers, and relevant case-law, help paint a fuller picture to aid in the determination of a federal ballot's legality. In doing so, this paper lays the groundwork and context for a bipartisan conversation on the necessary measures to secure our elections.

### Reflecting on the Larger Picture

Let's step back for a moment to recap why we would ponder a federal ballot in the first place. Threats of foreign-sponsored compromise in election data or election results have been at the forefront of the conversation on elections since the aftermath of the 2016 election. Some national security commentators have suggested these attacks were considered reconnaissance missions, which means that without change, state-sponsored actors will likely be able to hone their attacks, with the ultimate goal of sowing public distrust in our democracy.<sup>5</sup>

Efforts to improve election security have come at significant financial cost to the states, as well as the federal government, administered by the U.S. Election Assistance Commission (EAC). To be sure, there is bipartisan support in general for achieving two goals: lowering the costs of election administration, while simultaneously increasing security of the administered elections. In trying to simultaneously solve for both mandates, we may be guilty of applying an engineer's blinders in search of solution; that is, we have given little consideration to the political implications, while attempting to focus on practical process, platform and policy issues.

Therefore, the notion of a federal ballot, centrally administered and counted by the states, on its face with rational intellectual honesty appears to be worthy of consideration, not because we advocate for such (*we do not at this time*), but because in serious search for solutions to better secure national elections, it's an option deserving consideration. Thus, this paper aims to

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<sup>5</sup> See generally, [https://en.wikipedia.org/wiki/Russian\\_interference\\_in\\_the\\_2016\\_United\\_States\\_elections](https://en.wikipedia.org/wiki/Russian_interference_in_the_2016_United_States_elections) and the detailed treatment of this special edition New York Times story and infographics published in September 20th 2018: <https://www.nytimes.com/interactive/2018/09/20/us/politics/russia-interference-election-trump-clinton.html>

explore the facets of how such a system could work: from its implementation to its costs, and from grounding in the constitution to its legality that would be determined by the courts.

By culminating each of these individual factors, the OSET Institute hopes to inform the necessary conversation on a significant measure which could be taken to ensure our elections stand the test of the digital age as the solid foundation for our democracy. There are other drastic measures worthy of consideration, for example, the complete re-invention underlying election technology infrastructure, which is the heart and soul of our work.

On the way to ensuring national election security, the concept of a federal ballot is worthy of discussion.

# Section 1

## An All-Mail, Separate Federal Ballot

### 1.1 Overview and Arguments

In an effort to determine the practicality of such a large change to the nation's electoral system, understanding the core of the proposal is the first necessity. The alternative posed system is a uniform ballot, administered by the states, and pertaining only to the federal offices of the Presidency, Senate, and House of Representatives. Under this system, registered voters receive their ballot in the mail, and within a limited period of time, voters can fill out the ballot and send it back, postage-free. If for any reason a voter cannot cast their ballot by mail, they can fill out a ballot at a local polling center. Once sent out or dropped off at a secure location by the voter, the ballot would return to a centralized vote-counting office in each state, where optical scanners would read the physical ballots while being supervised by staff conducting risk-limiting audits. These audits involve hand-counting a predetermined number of ballots to ensure, to the highest degree of statistical significance, machine counters did not make enough mistakes to decide an election incorrectly.

This system would undeniably be a stark contrast from the way elections are currently conducted. Proponents, such as political scientist Dr. Norman J. Ornstein, argue that these changes, while drastic, would provide benefits to every aspect of elections, from cost reductions to improving public trust.<sup>6</sup> However, there are challenges to implementing a sweeping change to our electoral system; many states are still struggling to meet the criteria set by the Help America Vote Act of 2002 (HAVA), the most consequential recent change to elections. Critics of separating local and state-level elections from federal elections bring up valid concerns of decreased local turnout and elimination of down-ballot voting. Additionally, opponents to widening in vote-by-mail in general argue costs could increase with more absentee ballots, and wider services desired by voters. As a result, there are many questions left unanswered; how would states that currently utilize Vote-By-Mail systems for their elections properly implement a separate ballot? Is it possible centralizing ballot counts would negate the relative security that opponents argue America's elections have held due to their extreme decentralization?<sup>7</sup> Would costs markedly increase with state-wide centralization and the cost of mailing ballots?

### 1.2 Would a Federal Ballot Bring more Simplicity and Practicality?

From a surface-level consideration, a mail-in ballot offers several advantages; every voter receives the ballot in the comfort, privacy, and security of their own home, able to fill it out at

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<sup>6</sup> Mann, Thomas E., and Norman J. Ornstein. *It's Even Worse Than It Looks: How the American Constitutional System Collided with the New Politics of Extremism*. Basic Books. April 5, 2016. 139. Note: Norman Ornstein is on the Board of Advisors of the OSET Institute, Inc.

<sup>7</sup> This is a common straw argument. Decentralization doesn't create security. Security breaches at only a few localities in a close election could have severe consequences. Decentralization only seems more secure when compared to a theoretical alternative where local election operations were uniform nationwide, and any attack that could work in one of thousands of localities would work in all others. That is not a reality of our current election administration environment nationally, and not one we propose implementing.



their leisure. This appears to be a more practical and simple form of participating in democracy. The ballot would only have at most three different races, and would entirely void issues such as the butterfly ballot and ‘hanging chads’ due to its uniformity. With an increase in the frequency of complicated referendums at the state level, allowing voters the time to consider their choices for federal office would allow for more deliberate decision making.

An all-mail election would certainly be more practical for voters who cannot afford to miss time at work,<sup>8</sup> which remains a difficult hurdle to overcome in terms of protecting the right to vote. While many laws prohibit penalization for missing work to go to the polls, they are not present in nearly half of the states and leave much to be desired for those who continue to be unable to vote.<sup>9</sup> As seen in Colorado, there is a reasonable conclusion to be made that voting-by-mail could increase voter turnout. From 2012 to 2014, there was a 3% increase in turnout for elections; 2012 would have generally had a larger turnout, due to it being a general election year, so an increase in turnout from a general election to a midterm shows a large increase in the number of voters.<sup>10</sup>

There are many states which can be individually analyzed for how a vote-by-mail system would benefit them, but looking at the affects of the separate federal ballot in the state with the lowest voter turnout can act as a microcosm for other areas around the country. For Hawaii, which has the lowest voter turnout rate,<sup>11</sup> a mail-in ballot would likely net a positive impact. One of the most significant reasons for their low turnout is minimal intrinsic motivation from voters. Hawaii is between three to six hours behind anywhere in the contiguous 48 states; as a result, elections are often called before many residents even have the opportunity to vote after work. To many across the state, there is no reason to cast their ballots at all, as they consider their votes to be meaningless.<sup>12</sup> In a system where federal elections take place through a separate by-mail ballot, there is a timespan of approximately two weeks where voters can cast their ballots in mail or drop them off in person, which would even the playing field of states across the country in different time zones. To combat this issue, among others, Hawaii has recently begun a transition to vote-by-mail, akin to Colorado, Washington, and Oregon.<sup>13</sup>

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<sup>8</sup> Cutrone, Kenzie, Jonathan Smith, and Lia Kantrowitz. "I Couldn't Vote Because I Had to Work." Vice. November 01, 2018. Accessed August 16, 2019. [https://www.vice.com/en\\_us/article/zm9j85/i-couldnt-vote-because-i-had-to-work](https://www.vice.com/en_us/article/zm9j85/i-couldnt-vote-because-i-had-to-work).

<sup>9</sup> Gillett, Rachel. "In New York, California, Texas, and 27 Other States You Can Take Time off from Work to Vote - Here's the Full List." Business Insider. November 06, 2018. Accessed August 16, 2019. <https://www.businessinsider.com/can-i-leave-work-early-to-vote-2016-11>.

<sup>10</sup> "Colorado Voting Reforms: Early Results." The Pew Charitable Trusts. March 22, 2016. Accessed August 12, 2019. <https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2016/03/colorado-voting-reforms-early-results>.

<sup>11</sup> "Registration & Turnout Statistics." Hawaii Office of Elections. Accessed August 16, 2019. <https://elections.hawaii.gov/resources/registration-voter-turnout-statistics/>.

<sup>12</sup> Sutter, John D. "8 Reasons Hawaii Doesn't Vote." CNN. Cable News Network, October 21, 2012. Accessed August 27, 2019. <https://www.cnn.com/2012/10/21/opinion/why-hawaii-doesnt-vote/index.html>.

<sup>13</sup> Laur, Nancy Cook. "To Improve Voting Turnout, Hawaii Wants Everyone to Use Mail-in Ballots." U.S. News & World Report. U.S. News & World Report, June 26, 2019. Accessed August 27, 2019. <https://www.usnews.com/news/best-states/articles/2019-06-26/all-mail-balloting-becomes-law-in-hawaii>.

It appears that putting the separate federal ballot under a magnifying glass, some flaws begin to appear. One of the most severe drawbacks to separating federal offices from municipal and state-level offices is the inability for voters to down-ballot vote, as well as the potential decrease in local and state-level turnout. In midterm and presidential election years, there is a voter turnout increase by around 20% in comparison to odd-numbered years, and this massive surge in voter participation means candidates lower down on the ballot are often affected. With an entirely separate ballot for federal offices, candidates for local and state offices that count on the increased voter turnouts to aid in their campaigns would be negatively impacted. For the many people who only vote occasionally, such as those who contribute to the general election year increase, they may not bother to participate in local and state elections at all; turnout could plummet, which could, in turn, hurt those who are represented by poorly chosen candidates.

Across the country, there are three states which have their elections conducted by mail as of July 2019: Colorado, Washington, and Oregon.<sup>14</sup> These states' vote-by-mail systems are being successfully administered and received well, but a separate federal ballot would add a challenge. Voters would receive a ballot in the mail for their local/state elections, as well as a separate ballot for federal elections; this is a massive regression in the simplicity that these three states have succeeded in accomplishing with entirely mail-based elections. Although instituted within the last decade, there has been data released which showed turnout increases of two to four percentage points in a non-presidential election, and much higher for a presidential election year in Washington. The ease of access for many lower-participating groups in the polls showed a decreased disparity between those who are less represented, in comparison to frequent voters.<sup>15</sup> This data could be extrapolated to make estimations about some statistical benefits of a nationwide federal mail-in ballot. However, with the added complexity of another ballot appearing in another envelope, some of these benefits could vanish. For an initiative such as the federal ballot to be administered successfully in all states, precautions must be taken to ensure a tailored fit for each state's unique electoral circumstances. To combat the aforementioned confusion which might occur in current vote-by-mail states, alterations to a federal ballot's implementation could happen through the local/state and federal ballots appearing in a single envelope, as sent out by the state. Inside the envelope, there would be two separate ballots, as well as confidentiality envelopes to place each ballot inside, to be dropped in secure drop boxes across the state, or picked up by the Postal Service. These ballots would then be sent to their state/local count, or the centralized count for the federal elections.

Individualized deployment plans for each state are important, but one aspect of the alternative system would stay relatively uniform throughout the country: a *centralized vote count*. Precincts across the country currently count and communicate their different ballots in a variety of ways, and these variances add to the already significant time it takes to verify election results. The ways precincts tally their votes may include phone calls, physical delivery of memory sticks,

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<sup>14</sup> While vote-by-mail is the default in these states, in CO in particular, there is a multi-day period where voters can cast their ballots in-person at vote centers across the state.

<sup>15</sup> Gerber, Alan S., Gregory A. Huber, and Seth J. Hill. "Identifying the Effect of All-Mail Elections on Turnout: Staggered Reform in the Evergreen State." *Political Science Research and Methods* 1, no. 1 (2013): 91–116. doi:10.1017/psrm.2013.5.

or faxing results, among a myriad of other methods. Such delays in tallying results are compounded by the amount of information that voters are presented on their current ballots. According to Professor Barry Burden of the University of Wisconsin, “...many US ballots are long and complicated... they might involve ballots issues, school bonds, or referenda. Voters might write in names of unlisted candidates. All of these complexities may add to the time it takes process ballots.”<sup>16</sup> With general uniformity in election administration with a federal ballot across the country, there could be decreased turnaround times for election results, as well as a more confident verification process when the votes are tallied and audited. These tallies and audits would, under the alternative system, all occur under the same roof in each state. With a more streamlined system, there may be less overall staff, the costs of which are further detailed in § 1.4.

While an upheaval of the current system may alarm a large number of Americans, and would likely cause confusion in the process of its rollout, shakeups to the electoral system are hardly something new to adapt to for the public. Throughout the United States’ short lifespan of 254 years, there have been many forms of voting that have taken place. Initially, votes were cast by voice; this changed in the mid-late 19<sup>th</sup> century, with the inception of party ballots, small slips of paper, handed out by the Tammany Hall-like political machines of the period.<sup>17</sup> These ballots were handed in at a polling place and contained an entire party’s roster on them, meaning people could essentially only vote straight-party.<sup>18</sup> In the words of Jill Lepore, *New Yorker* staff writer, “[t]he reform that ended this unsettling state of affairs was imported from Australia, and was not achieved in the United States until the eighteen-nineties...the radical idea that governments should provide ballots—was hard-fought.”<sup>19</sup> In the late 19<sup>th</sup> to early 20<sup>th</sup> centuries, the Australian Ballot made its way into the electoral system of the United States and was quickly adopted by states across the country. The American people, as a result, had to adapt to these changes. Over the course of a person’s lifetime in the 19th century, they may have experienced three different forms of voting; while the changes that occurred were undoubtedly significant, it is apparent that the American people were able to successfully acclimate. While the shift to an all-mail federal ballot may be temporarily strenuous on election administrators and voters alike, there is a reasonable precedent to predict that changes to our electoral system will stick, and become successful in due time.

### 1.3 How Would Election Security Change?

The election cycle of 2016 brought with it an entirely foreign threat to American democracy—both figuratively and literally. Robert Mueller’s Office of the Special Counsel found evidence that

<sup>16</sup> Kirby, Jen. "Why It Takes So Long to Get Election Night Results." Vox. May 09, 2018. Accessed August 16, 2019. <https://www.vox.com/2018/5/8/17320758/primary-election-night-results-ohio-west-virginia-indiana-north-carolina>.

<sup>17</sup> "Tammany Hall." See: [https://en.wikipedia.org/wiki/Tammany\\_Hall](https://en.wikipedia.org/wiki/Tammany_Hall) See also: Encyclopædia Britannica. Encyclopædia Britannica, inc., n.d. <https://www.britannica.com/topic/Tammany-Hall>.

<sup>18</sup> "Public Voting: Before the Secret Ballot." Voting Viva Voce. Accessed August 16, 2019. <http://sociallogic.iath.virginia.edu/node/39>.

<sup>19</sup> Lepore, Jill. "How We Used to Vote." *The New Yorker*. October 6, 2008. Accessed July 22, 2019. <https://www.newyorker.com/magazine/2008/10/13/rock-paper-scissors>.

showed Russian GRU operatives successfully infiltrated multiple states' election administration infrastructure, therefore gaining access to millions of voters' information; however, the true scale of Russia's interest remained unknown until July of 2019. In addition, members of OSET Institute senior leadership with the necessary technical credentials were engaged in some of the activities conducted by the U.S. national security apparatus to investigate and understand the extent of efforts to disrupt election administration processes. Further, a Senate Intelligence Committee report found released July 25<sup>th</sup> 2019, found that Russia's interests in targeting state election administration went beyond the initial 21 states that were reported to have been notified of a possible compromise by the Department of Homeland Security (DHS) in late-2017.<sup>20</sup> The report found that "...the Russians had attempted to intrude in all 50 states, based on the extent of the activity and the apparent randomness of the attempts." However, these attempts, as far as can be ascertained to date, were not directly conducted to infiltrate voting systems and compromise ballots. DHS representatives testified to the Intelligence Committee that Russia was likely probing to better understand the interconnectedness and infrastructure of states' individual election systems. This 'scouting' data could then be used to orchestrate more targeted cyber-attacks.

The threat of further interference in American elections is looming over the country; increasing election security with urgency is a necessity in order to ensure the election of 2020 is not compromised. Nothing in this paper, in terms of an initiative can be implemented in time to impact the 2020 election. However, going forward, with the utilization of an all-mail separate federal ballot, election security as a whole would change greatly, and would likely see a net benefit. Some of the most significant impacts on nationwide election security would come from the paper, hand-marked ballots, and the reduced surface area of attack via centralization of counting.

### 1.3.1 Paper, Hand-marked, Mail-returned Ballots

Across the United States, as of July 2019, there are 14 states which do not have comprehensive paper trails as a result of their choice in voting technology.<sup>21</sup> Five of these states use exclusively Direct Recording Electronic systems (DRE), which tabulate votes onto a computer's onboard memory. These machines, modifiable to be audited in some states, leave no paper trail behind in four out of the five states utilizing these systems. Without the ability to conduct audits, and verify election results, there comes difficulty in using evidence to substantiate an election winner.<sup>22</sup> Systems with no paper trail, such as DREs, are exceptionally good targets for compromise by foreign governments. With unverifiable election results comes public discord and distrust in the electoral system - the ultimate goal of Russian influence.<sup>23</sup> Alleviating these concerns, and ensuring that every vote's origin can

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<sup>20</sup> Mulvihill, Geoff, and Jake Pearson. "Federal Government Notifies 21 States of Election Hacking." AP NEWS. September 23, 2017. Accessed July 28, 2019. <https://apnews.com/cb8a753a9b0948589cc372a3c037a567>.

<sup>21</sup> "New Verifier". Verified Voting. Accessed July 27, 2019. <https://www.verifiedvoting.org/verifier/#>.

<sup>22</sup> "Voting Equipment in the United States." Verified Voting. Accessed July 27, 2019. <https://www.verifiedvoting.org/resources/voting-equipment/>.

<sup>23</sup> SSCI Transcript of the Interview with Lisa Monaco, Former Homeland Security Advisor, August 10, 2017. 30.

be accounted for, is an outcome that could only stem from the ability to audit elections. Paper ballots, hand-marked by voters, are some of the most simple, yet secure ways to conduct elections. With a separate federal ballot, a standard of increased security would be carried across all 50 states, regardless of that state's system of administering municipal and state elections. For states that utilize voting systems without a verifiable paper trail, separating federal elections onto a paper ballot would ensure that the more frequently-targeted offices are above the possibility of compromise.

For many proponents of increasing election security, there are other methods of ensuring election integrity. Organizations, such as FollowMyVote, have strongly advocated for the utilization of blockchain technology to conduct elections online and using its decentralized system to increase security.<sup>24</sup> This technology has been piloted in some precincts in West Virginia, but due to the system's infancy, there are unanswered security concerns. According to Dr. Matthew Blaze, a cryptography researcher serving in the McDevitt Chair of Computer Science and Law at Georgetown University (*writing at the time when he was still at the University of Pennsylvania*), explains that scaling a blockchain election system would reveal new security vulnerabilities;<sup>25</sup> the increase in necessary additional security to ensure blockchain runs safely isn't practical. "It's not that blockchains are bad," he writes, "it's that they introduce new security vulnerabilities. [Securing the vote tally against fraud] is more easily, simply, and securely done with other approaches."<sup>26</sup> The most promising approach, to Blaze, is optical scanning paper ballots; they leave direct evidence of the voter's intent (a tabulation approach long advocated for by the OSET Institute and TrustTheVote Project).<sup>27</sup> As a result, while new, cutting-edge technology appears promising, many experts believe the tried-and-true method of hand-marked ballots, optically scanned with risk-limiting audits, are the most secure way to conduct elections.

There is another risk that could be remediated through an all-mail election, and through voters marking their ballots in the privacy of their chosen location; such is best illustrated in a hypothetical scenario. According to a study conducted in three California counties, the most common time for voters to go to the polls is in the evening, presumably after work, and

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<sup>24</sup> Tyler, Taylor. "The Future of Voting Is Decentralized and Cryptographically Secure." Independent Voter News. September 05, 2014. Accessed July 28, 2019. <https://ivn.us/2014/09/05/future-voting-decentralized-cryptographically-secure>.

<sup>25</sup> *Hearing on "Deciphering the Debate over Encryption"*. United States House of Representatives Committee on Energy and Commerce. April 19, 2016. 6-7. (testimony of Matt Blaze) <https://docs.house.gov/meetings/IF/IF02/20160419/104812/HHRG-114-IF02-Wstate-BlazeM-20160419-U3.pdf>

<sup>26</sup> Orcutt, Mike. "Why Security Experts Hate That "blockchain Voting" Will Be Used in the Midterm Elections." MIT Technology Review. August 30, 2018. Accessed August 1, 2019. <https://www.technologyreview.com/s/611850/why-security-experts-hate-that-blockchain-voting-will-be-used-in-the-midterm-elections/>.

<sup>27</sup> *Hearing on "Cybersecurity of Voting Machines"*. United States House of Representatives Committee on Oversight and Government Reform. Subcommittee on Information Technology and Subcommittee on Intergovernmental Affairs. November 29, 2017. 2. (testimony of Matt Blaze) <https://docs.house.gov/meetings/GO/GO25/20171129/106602/HHRG-115-GO25-Wstate-BlazePhDM-20171129.pdf>

shortly before the polls close.<sup>28</sup> If a malicious entity, be it a foreign government or otherwise, desired to have an effect on election results, they could wait until peak voting time, around 5:00 - 7:00 PM, and call in a threat on a specific polling place that is a party's stronghold in a closely competitive district. The multiple hours it would take emergency services to clear the polling place could mean voters in line were instructed to leave (for their apparent safety), thus blocking their desired votes from the tally, as polls close at 8:00 PM. If properly orchestrated, such an attack could have drastic ramifications on the outcome of an election; if not through explicit changes to votes, the fear and doubt it would sew into the public could be irreparable. This is where a mail-in ballot would be incredibly beneficial; any physical threat to voters at a polling place would be immediately remediated, and while it is not an end-all solution, ensuring the safety of voters is a critical step towards building public trust.

### 1.3.2 Election Administration Centralization

The decentralized nature of the electoral system in the United States appeared to be impervious to attacks for centuries; with almost 8,000 (now closer to 10,000) local entities independently administering elections across the country,<sup>29</sup> the idea that a widespread attack could be successfully mounted was not in the minds of many politicians – until 2016. Russian interference has demonstrated that with extreme decentralization actually comes the *inability* to properly secure elections nationwide. With thousands of independently operated offices across the country, the ability to ensure everyone has proficient cybersecurity capabilities is difficult, as many do not have the budgets for necessary improvements. Local governments across the country are already facing dozens of cyber-attacks through unencrypted email attacks, and they have cost millions to regain access to their networks.<sup>30</sup> With elections administered on similarly-configured equipment, the risks are at an all-time high. The autonomy that exists with such decentralization can also present a challenge to ensure funds are allocated toward the new threats election administration faces in the United States. This issue could be remedied with either increased funding to individual election jurisdictions, and earmarking that spending towards security, or via increased centralization to ensure elections are more secure. Both of these solutions require increased federal oversight, so despite valid criticisms, to increase security to where the risk of compromise is sufficiently decreased, there may be few other alternatives.

In the case of allocating more resources to the states, the Help America Vote Act is an example of legislation that was geared towards state-level implementation, written in the aftermath of the election of 2000. While there were new requirements implemented by the

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<sup>28</sup> Masket, Seth. "When Do People Vote?" Washington Monthly. October 23, 2012. Accessed August 2, 2019. <https://washingtonmonthly.com/2012/10/23/when-do-people-vote/>.

<sup>29</sup> Kimball, David C., and Brady Baybeck. "Are All Jurisdictions Equal? Size Disparity in Election Administration." *Election Law Journal: Rules, Politics, and Policy* 12, no. 2. November 2, 2013. 130-45. <https://pdfs.semanticscholar.org/e12f/d6a7696cfb4b33c5d179d2eb6e20370f384d.pdf>

<sup>30</sup> "More than 20 Texas Local Governments Face Ransomware Attack." CBS News. August 20, 2019. Accessed August 22, 2019. <https://www.cbsnews.com/news/texas-ransomware-attack-more-than-20-texas-local-governments-are-facing-a-ransomware-attack/>.

federal government, it was mainly left to the states for the execution of changes to election systems. As detailed in § 3.2, little substantial progress to election security stemmed from these changes, and many states are still struggling to meet requirements mandated by the legislation. Over 15 years later, some states are still receiving earmarked funds from the initial passing of this legislation. In the face of continuing election security threats by foreign adversaries, the time-frame required before any election cycle to allow the current decentralized system to strengthen defenses may be too long to sufficiently protect subsequent election cycles. To be sure, foreign attacks and intervention are unlikely to decrease let alone disappear post 2020.

To enact change quickly and with uniformity across state lines in anticipation of any national election cycle, a centralized approach may be more effective than the current, fragmented system. For example, with a central vote count for each state, security personnel and technology can be deployed and utilized more effectively, rather than be spread out over literally thousands of local election offices. Additionally, rather than election officials coordinating across dozens of counties in order to gather data and conduct audits, a central vote count would eliminate much of the lag and miscommunication plaguing turnaround times. Alleviating the need for runners to bring ballot boxes or data from one location to another also reduces the risk of a data breach, as there would be far fewer steps in the chain susceptible to attack. One of the largest criticisms of total centralization (of tabulation), however, is that if states are separated in their election administration, the damage from a compromising attack could be limited to just the affected state's individual system.<sup>31</sup> Election technology experts agree that a monolithic election administration system, as seen in the current election administration systems in place across the country, inherently compromises every level of election security.<sup>32</sup> Proponents of an alternative system also caution that for lawmakers to successfully legislate a federal ballot, alongside modifications to tailor the initiative to individual states, measures must be incorporated to ensure that election management systems are properly segmented so cyber-attack would not be able to gain access to any other aspect of a state's systems.

While there are inherent risks that coincide with a massive overhaul of the United States election system, the security changes that come from such a shift must be taken into account. Centralizing federal elections toward uniformity across the country would allow those states to administer elections more efficiently, while also aiding in the ability to conduct frequent risk-limiting audits to ensure statistically proper counts of votes. Unlike HAVA-era DRE systems which lack artifacts of voter intent, and are easily susceptible to compromise, paper ballots offer both a physical paper trail and the possibility to hand-count ballots to ensure results are accurate. These vote tallies could, in theory, be counted more quickly than the current method of individual precinct tallies reporting to an overarching

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<sup>31</sup> McMaken, Ryan. "Decentralize the Elections." Mises Institute. October 04, 2016. Accessed July 25, 2019. <https://mises.org/wire/decentralize-elections>.

<sup>32</sup> Sebes, E. John, and Edward Perez. "Next Generation Voting System Technology Architecture." OSET Institute - Open Source Election Technology. OSET Institute - Open Source Election Technology, April 3, 2019. <https://www.osefoundation.org/research/2019/04/03/newvstarch>. 5-7

election administration center. It is important to conclude, however, that many of these security benefits could be achieved individually, and be pragmatically introduced into elections without systematic upheaval; they are *not* mutually exclusive to a vote-by-mail federal ballot.

#### 1.4 What are the Costs?

Proponents of a federal ballot, and specifically a central ballot count, argue that cost will be one of the most significant factors in understanding a push towards centralization of federal elections. However, opponents of voting-by-mail, such as Charles Stewart III of MIT, argue that state costs may actually *increase* with an increase in vote-by-mail.<sup>33</sup> These estimated costs of an election model based on all-mail, state-centralized Federal election can be best highlighted by a comparison of two rough-order-of-magnitude (ROM) cost models. These cost models take into account the costs of improving election cyber-security and related operational security, in the face of the new threat environment, and to operationalize the security improvements that are now broadly recommended. The two cost models are:

- Costs of current locally-operated federal elections, with the addition of:
  - Minimum amounts of permanent staff to improve the IT maturity and cyber-security capabilities of local elections offices.
- The cost of a new alternative federal election model, in which each state conducts state-central all-mail federal election operations, including:
  - Additional permanent staff to reach an increased level of cyber-security capabilities

The first cost model is based on current estimates of election operations costs; plus estimates of new costs to local elections offices for the IT and cyber-security additional staff. The second cost model is based on the assumption of a state's new Federal all-mail election processes' costs would be the same order of magnitude as large counties that are currently running their elections centrally by mail. Using Denver County, Colorado as a model, and including estimates for population-related costs, as well as additional IT and cyber-security staff beyond the current norm of large-county election operations, gives total cost comparable to the first model. These models are constructed from a base of assertions (see **Appendix A**), which lessens their distractions by exploring every aspect of each variable involved.<sup>34</sup>

The figure below illustrates a cost comparison between the current decentralized count system, and an alternative centralized count system. In brief, the results shown in **Figure 1** are:

- The increases in security in a current, decentralized model require a substantial increase in local expenses for the same, with an approximate increase of 45% to total election administration spending (including security costs).

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<sup>33</sup> Stewart III, Charles. "Challenges of Vote-by-Mail". Presented at National Conference of State Legislatures. Nashville, TN. August 7, 2019.

<sup>34</sup> The full cost models can be viewed at:  
[https://trustthevote.org/wp-content/uploads/2020/01/FedBallot\\_CostModelFinal.xlsx](https://trustthevote.org/wp-content/uploads/2020/01/FedBallot_CostModelFinal.xlsx)



- The total costs of a state-managed Federal-only model are a small fraction of current costs, on the order of **22%**, including the additional costs for increased security.

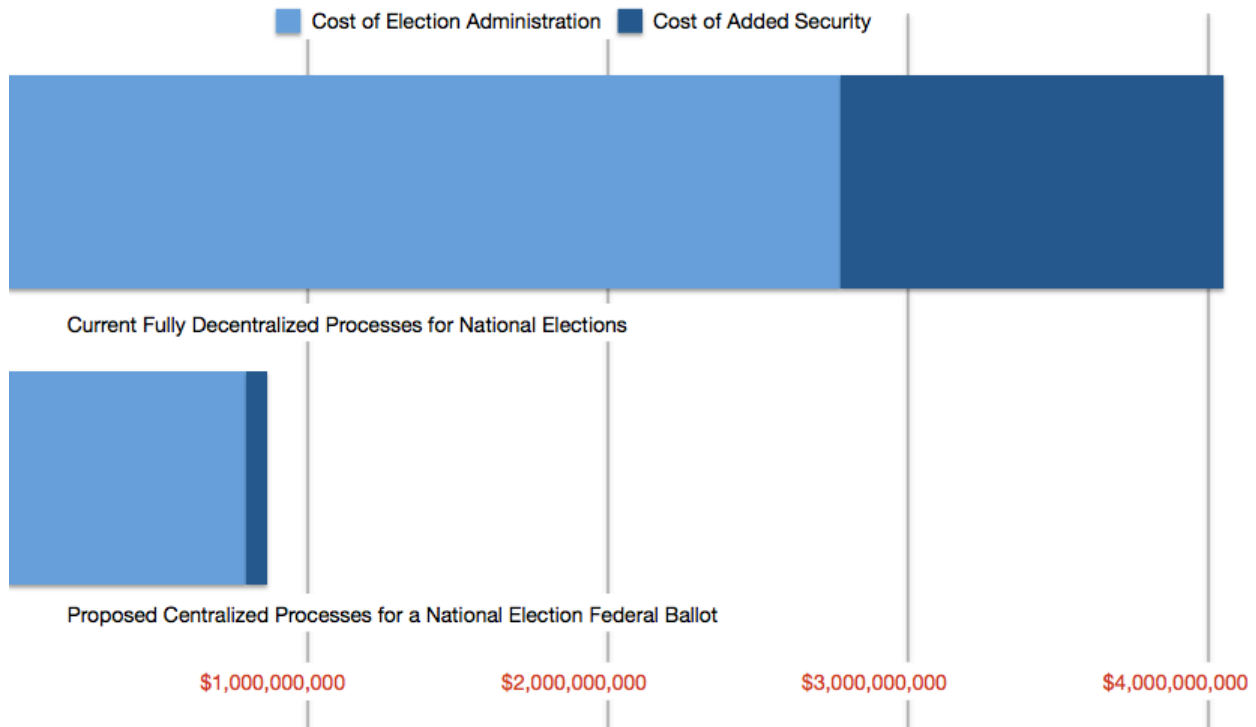


Figure 1. Cost Comparison Between Current Decentralized and Proposed Centralized Ballot Administration

A state-managed, centralized vote-by-mail and tabulation model appears to be a more cost-effective approach to achieve simpler and more secure Federal elections, compared to attempting to secure thousands of local elections offices. And this would be substantially less expensive than current Federal elections running in a decentralized model.

#### 1.4.1 Increasing Cyber-Security in the Current Decentralized Approach

The objective of additional spending on election cyber-security and associated operational security is to demonstratively reduce the risk of election catastrophe from attacks of nation-state adversaries, and consequently, to avoid a deterioration in public trust of election outcomes. Rather than attempting to set a mark of “enough security,” this cost model focuses only on modest incremental staffing that would move towards that goal. Not included are direct costs of IT security programs including tools and services, periodic outside cyber-security testing or assessment, and the like. In that sense, this cost model focuses on a reasonable floor of increased spending. The focus on staff costs is based on the responsibility of both the states and the federal government to most effectively spend money to ensure proper fortifications take place. To estimate how much this staff may cost in the current election system, a simple lower bound of projected spending per year can be calculated.

## Infrastructure Costs

Across the 50 states, and the District of Columbia, there are currently 7,858 localities that serve upwards of 132 million voters across the country.<sup>35</sup> This estimate is rather conservative, as there are some who argue there are up to 10,000 localities administering elections, not including subdivisions within those jurisdictions.<sup>36</sup> The sources of funding that fuel each of these thousands of elections offices across the country vary depending on: each states' statutes; refunding costs incurred by counties and federal money directed towards elections; use of HAVA grants, among others. As a result, the nationwide cost estimation is speculative, with a 2013 survey from the Presidential Commission on Election Administration estimating an election year costing approximately \$2.6 billion.<sup>37</sup> Adjusted for inflation, the cost comes close to \$2.8 billion in 2019. While this number may differ slightly depending on whether an election is general or odd-year, it serves as a base level of yearly spending to be incurred by state and local governments. With the new necessity of securing the system across the country to prevent state-sponsored actors from compromising election integrity, \$2.8 billion is only the start. Due to the fact that current elections include offices ranging from President to local town-clerks, security would need to be broadly increased across all jurisdictions. Ensuring a higher standard for cybersecurity means more money to be spent on election administration across the board; in the context of this estimate, a focus can be put specifically on the cost of additional staffing necessary to ensure secured elections year-round. While the utilization of supplementary IT and cybersecurity experts as contractors and consultants around election-time is important to bolster services during heavy loads, without a strong foundational level of IT and cybersecurity throughout the system, supplemental workers would be inconsequential.

## Permanent Staff Costs

Before the expertise of a cybersecurity specialist can be utilized, there must be a common level of IT capability in each central election office across the country. Due to the non-standardized drawing of district lines, some jurisdictions serve less than 100 voters, while others may serve over 1,000,000. This inherently creates discrepancies in IT capabilities in many less-populous jurisdictions, frequently forcing election clerks to serve as the jurisdiction's sole IT professional, among their many other roles. Such striking differences would need to be remediated through the hiring of a senior IT manager at every lacking jurisdiction, in order to standardize a level of technological capability across the country. This increase in permanent staff would additionally serve to help facilitate a cybersecurity expert's recommendations, protocols, and procedures effectively. There are, as of a 2013

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<sup>35</sup> Kimball, *Are All Jurisdictions Equal?*, 133-145.

<sup>36</sup> "Election Costs: What States Pay." National Conference of State Legislatures. August 3, 2018. Accessed August 13, 2019. <http://www.ncsl.org/research/elections-and-campaigns/election-costs.aspx>.

<sup>37</sup> Proceedings of Presidential Commission on Election Administration, Ronald Reagan Building, Washington, DC. December 3, 2013. <http://web.mit.edu/supportthevoter/www/2013/12/11/pcea-public-meeting-december-3-2013-webcast-materials/>. As cited in National Academies of Sciences, Engineering, and Medicine. 2018. *Securing the Vote: Protecting American Democracy*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25120>. 132-33.

study, 7,394 jurisdictions categorized as small or medium-sized, each serving less than 50,000 voters.<sup>38</sup> Assuming every one of these jurisdictions needs an upscaling of their IT department, this would necessitate the hiring of over 7,394 senior-level IT managers across the country. At an average base pay of approximately \$117,000,<sup>39</sup> these hirings would cost \$865,098,000 *per year* in salaries alone, not including employee benefits, or taxes.

By salaries, taxes, and benefits, an MIT study has found the true cost of employment to be approximately 1.3 times base salary. Overall, this increase puts a total cost of employment for IT capability across the country at \$1,124,627,400. This still serves as a low-end estimate, as the cost of physical infrastructure changes and licensing is omitted from the model. By including the cost of physical election infrastructure and licensing fees for the independent deployment of IT or security software packages across thousands of voter jurisdictions would add millions to the total. Research by the OSET Institute's Global Director of Technology Development, Edward Perez, has shown that an initial purchase of a new physical voting technology could cost a jurisdiction \$125,000; with software licenses and support included, the total surpasses \$270,000 for a single election office's infrastructure upgrade costs.

With the establishment of basic IT management across all jurisdictions in the country, the next step would be to introduce cyber-security experts. They, in coordination with local IT managers, can create protocols and procedures for ongoing IT security operations. In order to successfully bolster small and medium-sized jurisdictions' security, a standard of one cybersecurity expert per ten jurisdictions, akin to the newly-implemented Illinois system,<sup>40</sup> would sufficiently allow for election security to be bolstered in each jurisdiction, while minimizing costs and labor in the process. This would suggest approximately 740 cybersecurity professionals would be required to adequately ensure the protection of every jurisdiction.<sup>41</sup> With an average salary of \$92,500, this places the cost of cybersecurity at small and medium jurisdictions at \$68,413,000. Including benefits and taxes, the true cost would reach \$88,936,000.

Between small and medium jurisdictions, adding 740 cybersecurity experts to 7,394 IT senior staff would result in a necessary hiring-wave of 8,136 staff. By adding an average IT manager salary of \$117,000<sup>42</sup> as a baseline, to 10% of an average cybersecurity expert's \$92,500 salary,<sup>43</sup> which would be \$9,250 to account for their divided presence at ten election jurisdictions, an estimated cost per small and medium-sized jurisdiction would be

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<sup>38</sup> Kimball, *Are All Jurisdictions Equal?*, 133.

<sup>39</sup> "Salary: IT Senior Manager." Glassdoor. Accessed August 12, 2019. [https://www.glassdoor.com/Salaries/it-senior-manager-salary-SRCH\\_KO0,17.htm](https://www.glassdoor.com/Salaries/it-senior-manager-salary-SRCH_KO0,17.htm).

<sup>40</sup> "Cyber Navigator Program Important Step toward Voting Security." Herald-Whig, September 18, 2018. <https://www.whig.com/20180918/cyber-navigator-program-important-step-toward-voting-security>.

<sup>41</sup> With 7,394 small / medium jurisdictions, 10% is 740, for one expert per ten jurisdictions.

<sup>42</sup> *Ibid.*

<sup>43</sup> "Salary: Cyber Security." Glassdoor. Accessed August 20, 2019. [https://www.glassdoor.com/Salaries/cyber-security-salary-SRCH\\_KO0,14.htm](https://www.glassdoor.com/Salaries/cyber-security-salary-SRCH_KO0,14.htm).

\$126,250. Across all 7,394 small and medium jurisdictions combined, the annual salaries of added permanent staff would be \$933,492,500, incurred yearly. Including taxes and benefits, this number reaches \$1,213,540,250.

Larger jurisdictions, each serving over 50,000 voters, would require fewer staff, but more specifically focused on cybersecurity. Assuming each of the 462 large jurisdictions already have substantive IT capabilities, the only necessary hirings come from cybersecurity experts. Each would need at least one cybersecurity specialist to sufficiently support existing IT staff year-around, as a lower-bound estimate. By hiring 462 cybersecurity staff, and including the estimated costs for benefits and taxes, there would be slightly \$55,555,500 in yearly spending for permanent staff increases at large jurisdictions alone. All in all, by combining the cost of necessary IT, cybersecurity staff, and their benefits, across all jurisdictions, the rough number of what it would take to properly fortify elections in the United States would cost \$1,269,424,000 incurred yearly, as shown in [Table 1](#) below.

Size of Jurisdiction	Number of Jurisdictions <sup>44</sup>	Approximate Number of Voters <sup>45</sup>	Number of Hirings Needed	Average Cost per Jurisdiction	Total Cost of Increased Security
Small (<1,000)	2,777	1,300,000	3,055	\$164,125	\$455,775,125
Medium (1,000-50,000)	4,619	42,000,000	5,081	\$164,125	\$758,093,375
Large (50,000+)	462	89,000,000	462	\$120,250	\$55,555,500
				<b>Total Cost:</b>	<b>\$1,269,424,000</b>

[Table 1. Estimate Increased Security Costs](#)

With present election administration costs at approximately \$2.8 billion, creating a solid base of IT and cybersecurity defenses would result in an approximate increase of the total cost of election administration of 45%, bringing the overall cost for all election administration per year to approximately \$4.07 billion.

#### 1.4.2 Increasing Cybersecurity in an Alternative Centralized System

To compare the current system against an alternative option to sufficiently fortify election security while minimizing costs, we turn to the by-mail, federal ballot model.

This system would centralize vote-count centers in each state, as opposed to the current fragmentation of hundreds of jurisdictions per state. Including Washington DC, there would be 51 central ballot count locations where much, if not all federal election administration would take place. The alternative model would radically reduce the surface area where IT

<sup>44</sup> Kimball, *Are All Jurisdictions Equal?*, 133

<sup>45</sup> *Ibid.*

and cybersecurity support would be necessary to maintain a similar level of increased election security; the objective of foreign intervention is *not* to impact a small town-council election or rig its board of education, rather it is to compromise the most impactful elections nationwide: congressional and presidential races.

State and local governments would not need to foot the bill to secure all levels of elections, as this increase could be focused specifically on federal offices, allowing states to continue administering their state/local elections to their individual standards. In a state-wide federal ballot counting center, voting records and data for federal elections are to be kept in centralized, segmented, and secure databases; by ensuring both the security and effective accessibility of this information, many of the logistical hassles plaguing election-night efficiency could be remediated, plugging security holes in the process (see §1.3).

Whereas staff would be needed to monitor each of the varying independent election systems across thousands of jurisdictions, a centralized count would compound the amount of information a single security specialist can oversee, while also minimizing the number of senior IT staff necessary to provide the infrastructure for cybersecurity specialists to conduct their work. Depending on the population of each state, the number of staff count can be scaled to ensure proper security protocols are being followed to the highest degree.

Projected savings of hosting an election by mail can be estimated by considering Colorado's costs of election administration after their transition to vote-by-mail. Their widely open-source election administration data can be utilized to help estimate a lower-bound cost of such a system. In order to simulate the projected initial costs of a central ballot count for vote-by-mail in each state, the largest county in Colorado's election costs can initially be scaled to match the size of other states, as it serves as one of the largest real-world examples of a central ballot count. This initial figure would only cover the basic costs of infrastructure, which is the general cost-of-entry to participate in all-mail elections. Examples of this infrastructure which would remain generally similar between states of similar size include renting a building to conduct vote counts, and optical-scanning ballot-counting machines, among other necessary components to successfully run elections. To ensure the rough order of magnitude ("ROM") is comparable to the forecast \$4.07 billion in spending for a secure version of the *current* electoral system, variables have been added which slightly complicate the centralized model. As a result, to display all the relevant information as effectively as possible, the creation of two separate tables is warranted: one specifically for non-cost-related variables (Table 2), and one entailing all of the cost-related variables (Table 3).

By initially categorizing the states into small, medium, and large, a baseline cost, as determined by Denver County's election administration data, can then be scaled to estimate increases in infrastructure to handle larger vote counts. The assimilation of similarly-populated states would not significantly skew cost estimates, as a state with of 3.2 million voters would likely have small differences in overall election administration costs from a state with four million voters, besides from the per-voter cost increases of postage, and letter-carrying, among others. These estimated per-voter costs can then be added to each state's baseline infrastructure costs, alongside the cost of necessary permanent staff increases

relating to IT management and cybersecurity, to determine a ROM to conduct federal elections centrally. For this model, a small-size is any state or territory that has an active voting population of less than 1,000,000, a medium-size has between 1,000,000 and 4,000,000, and a large-size has more than 4,000,000 active voters. According to an Election Assistance Commission report on the 2018 electorate, there are 19 states including Washington D.C. which would into the small-size categorization, 24 medium-sized states, and eight large states.<sup>46</sup> As shown below, the number of voters in these three categories total approximately 9,800,000, 55,100,000, and 55,400,000, respectively. The total approximate number of voters in the table below differs slightly than in Table 1, as that survey was conducted during a general election year, as opposed to the midterm election which took place in 2018. The overall impact of this difference would likely be negligible, as there is a far larger difference between the total costs than what could be skewed by an additional ten million voters, as seen in Figure 1.

Size of State (Active Voters)	Number of States <sup>47</sup>	Approximate Total Active Voters <sup>48</sup>	Number of Hires Required
Small (<1,000,000)	19	9,800,000	38
Medium (1 - 4,000,000)	24	55,100,000	144
Large (>4,000,000)	8	55,400,000	64
<b>Totals:</b>	<b>51</b>	<b>120,300,000</b>	<b>246</b>

Table 2. Non-Cost Related Variables

### Infrastructure Costs

To determine the base-level infrastructure costs per state, the aforementioned assertion that there would be minimal difference in cost between different states of a relatively similar size allows for the assimilation of those states into three sizes. Thus, all small-sized states or territories would likely share similar costs to Denver County’s elections, so the ratio of Denver-to-state would be 1:1. According to the Office of the Secretary of State in Colorado, Denver County conducts elections for approximately 500,000 voters, and their total election administration costs for the 2018 election totaled \$2,343,522.<sup>49</sup> As a result, with 19 small-sized states of a relatively similar voting population to Denver, there would be an estimated base-infrastructure cost of \$44,526,918. For medium-sized states, the cost increase for increasing the infrastructure becomes non-linear, and economies of scale are taken into

<sup>46</sup> U.S. Election Assistance Commission. *Election Administration and Voting Survey: 2018 Comprehensive Report*. June 2019. Accessed August 19, 2019. [https://www.eac.gov/assets/1/6/2018\\_EAVS\\_Report.pdf](https://www.eac.gov/assets/1/6/2018_EAVS_Report.pdf). 26-27

<sup>47</sup> *Ibid.*

<sup>48</sup> *Ibid.*

<sup>49</sup> "Election Cost Statistics." *Accountability in Colorado Elections*. Accessed August 9, 2019. <https://www.sos.state.co.us/pubs/elections/ACE/ElectionCostStatistics/atlas.html?indicator2=i0&date2=Gross%20Cost>.

account for the estimate; the equivalent of three Denver Counties per state can be used to roughly determine what an average cost for infrastructure could be in a state of one to four million voters. Across the 24 medium-sized states, this would equate to \$168,733,584 in infrastructure spending. Larger states have economies of scale taken into account as well, and the sum of six Denver Counties would roughly estimate the infrastructure cost for a state with over four million voters; with eight large-sized states, the approximate cost would be \$112,489,056. Across all states, the estimated cost for base-level infrastructure would total \$332,870,124

### Additional Cost-Per-Voter

With base-level infrastructure costs established per state size, the additional costs that would occur with every additional voter can be added to the estimate. According to Colorado's open-source election data, the gross cost per active voter in Denver County for 2018 was \$5.57.<sup>50</sup> This number, however, includes costs which would have already been incurred through establishing the base-level infrastructure. To avoid overly inflating the model, data from a 2016 Pew study can help to isolate specific categories of costs in Colorado's elections; the study found that the cost-per-vote for the 2014 election was approximately \$3.94 for printing and postage combined,<sup>51</sup> which likely portrays a more accurate picture of nationwide costs not already included in the initial infrastructure estimate. Multiplying this \$3.94 by the total number of voters within each segment of states allows would more accurately add onto baseline election administration costs. Before the addition of permanent staff in the name of security, the total cost for base election administration in an alternative, centralized, system, would be approximately \$806,852,124. In comparison to \$2.8 billion for the current decentralized system, this estimate shows a drastic difference in cost; with the addition of security fortifications, these numbers grow further apart.

### Permanent Staff Costs

Due to the fact that centralized ballot counting centers would compound the amount data a single senior IT official or cybersecurity expert can effectively manage, there would be a far smaller amount of necessary permanent staff needed in comparison to the current model. The election costs of Denver, as used to estimate base infrastructure costs, already accounts for low-level IT support in their central ballot count. To sufficiently bolster each small-sized state's IT capabilities in terms of conducting cybersecurity operations, the addition of one senior IT manager would be needed. Additionally, a cybersecurity expert would be needed to work in tandem with the senior IT official, in order to ensure proper security protocols for all sensitive election data. With an average yearly salary of \$117,000 for a senior IT manager, and \$92,500 for a cybersecurity expert for each of the 19 small states, there would be an

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<sup>50</sup> *Ibid.*

<sup>51</sup> "Colorado Voting Reforms: Early Results." The Pew Charitable Trusts. March 22, 2016. Accessed August 12, 2019. <https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2016/03/colorado-voting-reforms-early-results>.

approximate cost of \$5,174,650 for the salaries and benefits of 38 additional permanent hires.

Across 24 medium states, three IT managers and cybersecurity experts would help to account for the expanded infrastructure, necessitating the hiring of 144 permanent staff. The costs of yearly salaries and benefits for two cybersecurity experts and senior IT staff for each of the medium-sized states would total \$19,609,200.<sup>52</sup> Large states would have a similarly incremental increase; four cybersecurity experts and senior IT staff would be hired to ensure an even level of election integrity in each state. Across the eight large states, the necessary permanent staff increases would total 64 hirings, with annual costs of employment totalling \$8,715,200.<sup>53</sup> For all 51 central ballot counts across the country, there would be 246 permanent hirings, as opposed to nearly 9,000 additional staff needed to ensure security at every election office in the decentralized system. Security improvements are where some of the largest proportions of savings would occur; the cost of cybersecurity hirings in a centralized system would be \$33,499,050, incurred yearly. To best illustrate these figures, [Table 3](#) below includes all of the aforementioned costs for an alternative, centralized, federal ballot.

Size of States	Base Infrastructure Cost	Total Per-Voter Added Costs	Permanent Staff Cost	Total Cost per Year
Small	\$44,526,918	\$38,612,000	\$5,174,650	\$88,313,568
Medium	\$168,733,584	\$217,094,000	\$19,609,200	\$405,436,784
Large	\$112,489,056	\$218,276,000	\$8,715,200	\$339,480,256
<b>Total Costs:</b>	<b>\$325,749,558</b>	<b>\$473,982,000</b>	<b>\$33,499,050</b>	<b>\$831,639,608</b>

Table 3. Cost Related Variables

### 1.4.3 - Summary

The aim of the OSET Institute in this work is not to advocate for specific policy changes, however there are some notable observations to make. The rough order-of-magnitude cost model illustrates that a bare-minimum increase of permanent staff in the current election system represents a jump of 25% to overall election administration cost. In other words, this would be an added cost of almost one billion dollars annually. In comparison, bolstering security to an equivalent extent for a central federal ballot count would cost approximately 30 million dollars, as seen in [Figure 1](#).

While MIT’s Charles Stewart’s argument that more voter services may cost more in terms of infrastructure costs may play a part in a more inclusive cost model, the difference in overall cost between Federal elections and overall elections is so significant that the additional costs would likely be absorbed with little to no issue.

<sup>52</sup> Base salary costs would total \$15,084,000

<sup>53</sup> Base salary costs would total \$6,704,000



The most confounding variable in this cost model is the fact that decentralized costs pertain to all levels of elections, while the second, centralized, estimate is exclusive to federal elections. Perhaps it can be less confounding when one considers that continuing along the path of completely decentralized elections for all offices, candidates, and contests means that to increase the security of the federal election elements means increasing security across the entire distributed ecosystem. And there are arguments to be made about how much of that cost should be born and with what conditions by the federal government given that in general, election administration is the constitutional province of the states.

Therefore, the most important aspect to consider in these estimates, and one that disregards that conflation entirely, is the cost of increasing security to protect the elections for the highest offices of the nation from attack, not necessarily the cost election administration outside of security. In comparison to securing the current, decentralized system, a centralized model for the purpose of a federal ballot would be less than 3% of the cost for a similar level of security.

By minimizing the surface area of where federal elections can be compromised across the country, there is a massively lower cost to employ cybersecurity professionals in order to ensure elections are impenetrable from foreign state actors.

Regardless of whether or not the Federal government believes this to be in its best interest, the power Congress has to mandate such a change across the states is the key to its implementation, and stands entirely separately from the cost benefits. To gauge the federal interest, an analysis of the Constitution and beyond will contribute to answering the question of constitutionality. That is the aspect next to be addressed in [Section 2](#).

## Section 2

### Grounding a Federal Interest

#### 2.1 Overview and Primary Arguments

To both quantify and qualify the legality of a federal ballot, the Constitution and arguments of the Framers at the time as written in the Federalist Papers are a valuable foundation. Together, they help offer necessary context to discuss the federal government's current role in terms of election oversight and administration.

At a time where federal oversight is present in nearly every facet of governance, critics of increasing election security, led by the Senate Majority Leader worry that the federal government legislating any aspect of election administration is another constriction on the freedoms states have struggled to keep.<sup>54</sup> For the skeptics of a major election overhaul, centralizing any aspect of elections would directly infringe on states' constitutionally-given rights to independently administer elections. On the other hand, Senator Elizabeth Warren, a proponent of increasing oversight, argues legislation is a tool to ensure voters are treated equally, and to secure all elections. The Senator argues that under certain preconditions, the federal government can “[administer] its federal elections to guarantee the fundamental right to vote.”<sup>55</sup> This all raises reasonable questions:

- Who did the Framers of the Constitution believe should control and administer elections?
- What power does Congress have to weigh in on elections?
- Would a separate federal ballot be Constitutional?

#### 2.2 What was the Framers' Intent?

The Federalist Papers serve as an informative vehicle to understand some of the Framers' intentions in developing the Constitution. Written after the Constitutional Conventions in an effort to convince states to ratify the document, the Papers offer insight into the drafting of the constitution, as well as some of the only remaining evidence of the Framers' thought processes. In examining the mindsets of Alexander Hamilton and James Madison, as conveyed through their essays, the reasoning they gave to certain power allocations can help understand how such can apply to the modern-day.

Published in the *Independent Journal* in 1788, Federalist 59: “Concerning the Power of Congress to Regulate the Election of Members” is most relevant in understanding the Framers' intent regarding delegation of election powers. Hamilton began with an explanation as to why Congress would have discretionary power over the states to make or alter regulations when it

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<sup>54</sup> Barrett, Ted, Manu Raju, and Clare Foran. "Why Mitch McConnell Is Rejecting Hill Calls on Election Security." CNN. June 14, 2019. Accessed July 20, 2019. <https://www.cnn.com/2019/06/14/politics/mcconnell-election-security/index.html>.

<sup>55</sup> Rod, Marc. "2020 Candidate Elizabeth Warren Announces Sweeping Election Security and Reform Plan." CNBC. June 25, 2019. Accessed July 20, 2019. <https://www.cnbc.com/2019/06/25/elizabeth-warren-announces-sweeping-election-security-and-reform-plan.html>.

comes to election administration. He wrote, “Every government ought to contain in itself the means of its own preservation ... they have reserved to the national authority a right to interpose [in elections] whenever *extraordinary circumstances* might render that interposition necessary to its safety” (*emphasis added*).<sup>56</sup> The sanctity of elections was viewed as existentially dire in nature, so there ought to be a way to ensure the preservation of their safety.

Hamilton noted that “the Constitutional Convention could have given authority to regulate elections to the national government alone, to the states alone, or to both.” While the affairs of states were largely left to their own discretion due to their intimate connection with the people, Hamilton argued that “*extraordinary circumstances*” would override this presumption. This compromise of federal oversight and state-level implementation was done not only out of a desire to prevent the national government from being exclusively at the mercy of the states but also to simultaneously assure that “fragmentation” the Articles of Confederation caused would be avoided. Without any added layer of oversight, if states simply refused to elect senators and representatives, the federal government would cease to function. The ability for the national legislature to step into the election of its own members was seen as an absolute necessity to the Framers. Hamilton noted, “I am greatly mistaken, notwithstanding if there be any article in the whole plan more completely defensible than this.”<sup>57</sup>

Thus, the words “*extraordinary circumstances*” are of particular importance in Federalist 59. While they exhibit some Framers’ desire for oversight, Hamilton gave little clarification about the significance and qualification of such a designation. Aware of ever-changing threats to the democratic system in the future, the Framers were purposefully vague in terms of direct election powers, out of a desire to avoid obsolescence. This vagueness leaves the interpretation of such a designation in the hands of the people of the present. One possible interpretation is that of a modern-day National Emergency declaration and the increased executive powers as a result of such a declaration. According to the National Emergencies Act of 1976, the President has the power to declare a national emergency and act upon it unilaterally; the exclusive accountability is via the Congress’ ability to terminate an emergency declaration with a simple majority, barring a presidential veto.<sup>58</sup> The power the President would wield, with the presumption of congressional approval, would allow for structural change to occur much more swiftly than through legislation passed on Capitol Hill. This, undoubtedly, would be a far overreach for the federal government to pursue, and there is a certainty of states vigorously protesting such changes.

A different method of materializing a modern designation of “*extraordinary circumstances*” is through national emergency-designated action by Congress to acknowledge that potential attacks on American elections are an existential threat to the country’s democratic system, and legislating in order to solve these issues in defense of our democracy. Practically exercising such power is exemplified in the form of postponing elections, as explored by the Congressional

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<sup>56</sup> Hamilton, Alexander. "Federalist 59: Concerning the Power of Congress to Regulate the Election of Members." The Avalon Project: Federalist No 59. February 22, 1788. [https://avalon.law.yale.edu/18th\\_century/fed59.asp](https://avalon.law.yale.edu/18th_century/fed59.asp).

<sup>57</sup> *Ibid.*

<sup>58</sup> H.R. 3884, 94th Cong. (September 14, 1976) (enacted).

Research Service in 2004. They found that “the power of Congress to protect the integrity of the Presidential election, combined with its authority to set the time of the election, would also seem to provide to Congress the power to postpone elections because of a national emergency.”<sup>59</sup> Through a less monocratic solution, more bipartisan measures could likely be pursued, alleviating risk of a partisan quarrel in regards to executive power.

Looking more broadly at the Federalist Papers, there are others that aid in providing context to other aspects of the electoral system. Namely, Federalist 68 directly addresses what Hamilton considered to be an existential threat to the union. He wrote:

“These most deadly adversaries of republican government might naturally have been expected to make their approaches from more than one quarter, but chiefly from the desire in foreign powers to gain an improper ascendant in our councils. How could they better gratify this, than by raising a creature of their own to the chief magistracy of the Union?”<sup>60</sup>

In asserting his concern, Hamilton further explained that ensuring the proper selection of a chief executive is vital to the nation’s security and health; he argued at the time of writing this essay that proper selection was through the electoral college. While Hamilton’s arguments in favor of the electoral college are not explicitly relevant in terms of a federal ballot, his desire to ensure that foreign adversaries cannot sway domestic elections is all-too-timely. A worry present since the inception of the country, measures must undoubtedly be taken to preserve the future of democracy in the United States in the face of evolving threats. It is not the role of the Federalist Papers, however, to serve as a vehicle for these changes. Rather, they are vital for providing additional and valuable context to inform on the intent of the Framers, and to absorb their wisdom in making modern decisions. The final pursuit must be through legitimately made law; accordingly, the federal government must act through the Constitution in response to the increasing threats to our electoral system.

## 2.3 The Constitutional Authority of Federal Oversight

As with any new federal law, the inception of an all-mail federal ballot must begin in a grounding within the Constitution. While some of this grounding may be up for interpretation in the Supreme Court, its basis begins with the enumerated and implied powers that the Constitution grants to the federal government for overseeing elections.

### 2.3.1 Articles

A launching point in the comprehension of federal oversight in terms of elections begins in section 4 of Article I: the Elections Clause. Within this article, power is entrusted to each state’s legislature to create or alter regulations that dictate the “Times, Places and Manner of holding Elections.”<sup>61</sup> Congress was given oversight in this matter and is able to make or alter these regulations at any time, with the exception of choosing the places of electing senators.

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<sup>59</sup> United States. Congressional Research Service. *Executive Branch Power to Postpone Elections*. By Kenneth R. Thomas. Washington, D.C.: Congressional Information Service, Library of Congress, 2004. 7.

<sup>60</sup> Hamilton, Alexander. "Federalist 68: The Mode of Electing the President." The Avalon Project : Federalist No 68. March 14, 1788. [https://avalon.law.yale.edu/18th\\_century/fed68.asp](https://avalon.law.yale.edu/18th_century/fed68.asp).

<sup>61</sup> *U.S. Const.* art. I, § 4.

However, with the Seventeenth Amendment’s ratification in the early 20<sup>th</sup> century, that exception was removed, and Congress has been given full oversight capability in regards to federal congressional elections. Not hesitating to utilize their power as overseers of elections, Congress has passed many structural changes to elections in the century since the Seventeenth Amendment such as the Help America Vote Act (HAVA) and the Voting Rights Acts.

Over the months that the Constitutional Convention took place, there was undoubtedly an emphasis on pragmatic word choice throughout the document. The Framers knew this document would need to stand the test of longevity, and thus crafted it in a way to remain as timeless as possible. As a result, Framers such as Thomas Jefferson believed that straying far from the document would cause it to lose meaning. In 1803, he wrote, “Let us not make it a blank paper by construction ... If it is, then we have no Constitution.”<sup>62</sup> This pragmatism from the Framers allows there to be specific emphasis on certain words in the document, as has been done by former counterterrorism official Richard Clarke. A proponent of increased federal election oversight, Clarke argues that the Constitution specifically grants that right to the federal government, due to the Framers’ choice of the word “but” in Article I, Section 4. The exact wording is, “*but* the Congress may at any time by Law make or alter such Regulations” (*emphasis added*).<sup>63</sup> This rare usage of the word “but” Clarke argues, shows that while there was a specific intention of allowing states to have full power over the administration of elections; “Congress may set the rules.”<sup>64</sup>

The only other relevant mention of elections before the Bill of Rights & subsequent amendments is in Article II. Section 1 strays from such direct deference to Congressional authority, shown in Article I, Section 4. By granting the ability to choose the method of selecting members of the electoral college to the states, election administration power seems somewhat more decentralized for presidential elections. This article contains federal interest solely in the ability for Congress to “...determine the Time of choosing the Electors, and the Day on which they shall give their Votes.”<sup>65</sup> Thus, an issue potentially arises for Congress’ ability to legislate structural change to presidential elections, and it could challenge the Constitutionality of a federal ballot (as detailed in § 4.2 and § 5).

### 2.3.2 Amendments

The amendments to the Constitution illustrate a timeline of structural changes for our nation; many of which pertain directly to elections. In order to entirely contextualize a federal ballot’s constitutionality, it would be remiss not to explore the amendments and their implications. These changes to elections begin not long after the Constitution’s ratification,

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<sup>62</sup> Thomas Jefferson to Wilson Cary Nicholas. September 7, 1803. Monticello. <https://jeffersonpapers.princeton.edu/selected-documents/wilson-cary-nicholas-0>

<sup>63</sup> U.S. Const. art. I, § 4.

<sup>64</sup> Vicens, AJ. "The US Government Has Done "almost Nothing" to Stop Cyber Attacks." Mother Jones. July 16, 2019. Accessed July 24, 2019. <https://www.motherjones.com/politics/2019/07/the-us-government-has-done-almost-nothing-to-stop-cyber-attacks/>.

<sup>65</sup> U.S. Const. art. II, § 1.

with the twelfth amendment. In amending Article II Section 1, the Twelfth Amendment reaffirmed the electoral college as the method of voting for president, while also adding a difference between electoral votes for president and vice president in the aftermath of the election of 1800. The purpose of the amendment was to both simplify and divide presidential and vice-presidential elections in an effort to avoid another tie-breaker in the House.<sup>66</sup>

In a broader sense, the Seventeenth Amendment (ratified in 1913) also manifested instance of reform to the electoral system, and its rapid ratification showed states could be receptive to such a change. The Seventeenth Amendment changed the selection of senators from an internal nomination to a popular vote, alongside amending the Elections Clause in Article I, Section 4. It also stood to affirm that state executives, namely, governors, have the power to fill vacancies in Congress until an election can be held. In the time prior to the amendment, the selection of senators was allegedly plagued with both corruption and delays. The validity of corruption claims was heavily contested, as there were only a few instances of direct corrupt behavior proven. According to the author and scholar George Haynes, “Between 1857 and 1900, the Senate investigated ten cases of alleged bribery or corruption, although in only three cases was a Senate committee able to conclude that the charges had merit.”<sup>67</sup> Nevertheless, public perception was poisoned by such allegations, and opponents of the amendment had little with which to defend.<sup>68</sup> As a result of such a lack of public trust in their representatives, the amendment was quickly ratified across the nation.

Regarding a separate federal ballot, the Seventeenth Amendment is perhaps one of the most relevant. Article I, Section 4 was amended to strike the clause which barred Congress from choosing or regulating the location of elections. In doing so, a new swath of oversight capabilities that Congress was initially denied had become enumerated. While broad direct oversight has not been exercised, the power of Congress to invoke their rights is entirely their prerogative. As further detailed in §2.2, an example of such a broad power Congress could exercise is through the postponement of federal elections. With Congress allowed to alter the “time” of elections via statute directly and drastically, it begs the question: Could the “place” where an election occurs change as well?

To conclude enumerated federal authority to oversee elections, the Fifteenth, Nineteenth and Twenty-Sixth Amendments are crucial not by their content, but in their implications. This combination of amendments guaranteed the right to vote based on race, color, or past condition of slavery; it also granted voting rights to women and changed the voting age to 18. While states had initially maintained the right to determine who can participate in their elections internally, these amendments delegated those regulatory powers to Congress. In

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<sup>66</sup> "The 12th Amendment of the U.S. Constitution." National Constitution Center – The 12th Amendment of the U.S. Constitution. Accessed July 28, 2019. <https://constitutioncenter.org/interactive-constitution/amendments/amendment-xii>.

<sup>67</sup> Bybee, Jay S., "Ulysses at the Mast: Democracy, Federalism, and the Sirens' Song of the Seventeenth Amendment" (1997). Scholarly Works. Paper 350. <http://scholars.law.unlv.edu/facpub/350>

<sup>68</sup> *Ibid.*

many cases, this meant directly overruling states' decisions on the eligible voting population; during the women's suffrage movement, only 15 states across the country gave women the unconditional right to vote before the passage of the Nineteenth Amendment.<sup>69</sup>

The federal government has gained a significant amount of oversight authority since the initial drafting of the Constitution. Much of this authority stems directly from enumerated powers added in amendments over the last two centuries; many of these powers have not been tested to their full capacity, which a proposal to create a federal ballot would undoubtedly do. Enacting such a significant change to the electoral process and system presents challenges, and arguably pushes the envelope of what could be considered constitutional. In order to ensure that these boundaries are respected, exploring what Congress has successfully passed could clarify what is possible.

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<sup>69</sup> "1919 Women's Suffrage Victory Map, Published The Year Before The..." Brilliant Maps. January 14, 2015. Accessed August 2, 2019. <https://brilliantmaps.com/1919-womens-suffrage-victory/>.

## Section 3

### Legislation; Past and Present

#### 3.1 Overview and Primary Arguments

The pursuit of an all-mail federal ballot would likely take the form of legislation through Congress, rather than a Constitutional amendment. Practically speaking, an amendment would stand slim chances of ratification in the modern American political climate. Moreover, the lengthy ratification process would limit the timeliness of enacting change to better secure national elections as soon as possible. Thus, a practical implementation of a federal ballot would best be handled through legislation. This is *not* to say, however, that proposing legislation is a guaranteed avenue to its enactment or popular support.

Many local election officials across the country have spoken out against changes to the status quo. R. Doug Lewis, executive director of the National Association of Election Officials, argues that “Whenever partisans decide that they don’t like the election practices fostered by state legislatures, there is a push to get Congress to pass national election laws.”<sup>70</sup> Critics, including Lewis, argue that by passing legislation, Congress punts new additional responsibilities down to the lowest level, negatively impacting those who work directly with local elections. In an effort to bring uniformity, the diversity that allows over 500,000 offices to be voted for in the best method for each state would be squandered. Additionally, “...voters of each state seem to prefer the method of voting that they are used to, which was designed by and for their citizens,” Lewis concluded.<sup>71</sup>

Proponents of legislating electoral change argue that the system many voters have become accustomed to is not in their best interest. They argue that in order to close gaps in election security, such as requiring paper ballots, legislation is a necessary action. Senator Mark Warner, “and [others] argue that the holes in the nation’s electoral system are so obvious that proponents already have the votes to pass a myriad of bipartisan bills.”<sup>72</sup> As a result, there is a striking dichotomy between those who believe more action must be taken by the federal government and those who believe it begins a slippery slope to a unitary federal rule (notwithstanding constitutional provisions likely to prevent that extreme). What precedent is there for Congress to take steps in changing the electoral system? What is legislation currently in the works?

#### 3.2 - How has Congress Previously Enacted Electoral Reform?

When considering the current legality of a federal ballot initiative, looking at a timeline of similarly consequential legislation from the past, which has impacted election infrastructure and

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<sup>70</sup> Lewis, R. Doug. "Local Officials Must Remain in Control of Elections." The New York Times. November 9, 2012. Accessed August 1, 2019. <https://www.nytimes.com/roomfordebate/2012/11/08/does-our-voting-system-need-to-be-fixed/local-officials-must-remain-in-control-of-elections>.

<sup>71</sup> *Ibid.*

<sup>72</sup> Laslo, Matt. "Before Mueller's Testimony, Dems Demand More Election Security." Wired. July 24, 2019. Accessed July 29, 2019. <https://www.wired.com/story/mueller-testimony-election-security/>



administration at a similar level serves as a testament to the opportunity for significant changes in the future. Alongside various amendments passed relating to elections, Congress legislated sparsely in the 1800s in regards to election administration; it was left almost entirely to the states. Many of the most significant reforms to elections occurred in the 20<sup>th</sup> and early 21<sup>st</sup> centuries, after the passage of the Seventeenth Amendment.

### 3.2.1 19th to Mid-20th Century Legislation

An era of reforms to elections began in the latter decades of the 19<sup>th</sup> century, coinciding with the Reconstruction Period, as well as the beginning of an era that greatly expanded voting rights to various groups. Directly following the ratification of the Fifteenth Amendment, Congress passed the Civil Rights Act of 1870, followed by the Second and Third Force Acts, which aided in ensuring enforcement against (punishment for) those who denied African Americans the right to vote and protected the right to vote from other infringement. In 1871, national elections were put under control of the federal government, allowing federal judges and United States marshals to preside over polling places.<sup>73</sup> Additionally, the President gained the power “to use the armed forces to stop or prevent those who conspired to deny equal protection of the laws and to suspend habeas corpus, if necessary, to enforce the act.”<sup>74</sup> In the case of the Civil Rights Act and its supplemental legislation, it would appear that Congress acted accordingly with Constitutional power to enforce its laws, particularly in an instance of widespread repression of citizens’ Constitutional rights.

The next most notable change to elections occurred with the Voting Rights Act of 1965, during the aftermath of “Bloody Sunday,” a vicious attack on peaceful African American marchers by the Alabama State Police. This legislation supplemented that which came before in the form of the Civil Rights Acts and the Fifteenth Amendment. By banning literacy tests and appointing Federal Examiners to register citizens to vote, over 250,000 new black voters were registered by the end of 1965. Additionally, the act required voting jurisdictions to receive permission directly from the federal government to add or change any voting, practices, or procedures.<sup>75</sup> Through multiple court challenges (see § 4.2), the Voting Rights Act proved while many comprehensive changes to elections were constitutional, ensuring Congressional oversight remained within the bounds of the Elections clause were equally as integral.

While these two acts showcase many of the broad powers Congress has exercised to oversee administration, not every aspect of what a mail-in federal ballot would include has been addressed. In 1986, however, another piece to this puzzle was placed, with the passage of the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA). This legislation implemented a vote-by-mail absentee ballot to be administered by the states to military personnel and overseas citizens across the world, and if that ballot does not successfully

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<sup>73</sup> "Landmark Legislation: The Enforcement Acts of 1870 and 1871." U.S. Senate. Accessed August 2, 2019. <https://www.senate.gov/artandhistory/history/common/generic/EnforcementActs.htm>.

<sup>74</sup> *Ibid.*

<sup>75</sup> S. 1564, 89th Cong. (1965) (enacted).

reach the qualified person, they then have the ability to submit a uniform federal write-in absentee ballot for a general election instead.<sup>76</sup> By including solely federal offices, this back-up ballot is, in essence, a small-scale version of a nationwide vote-by-mail election system; it directly showcases the ability for the federal government to split federal election ballot items from state and local, and for states to administer these ballots to recipients. UOCAVA was amended in 2009 via the Military and Overseas Voting Empowerment (MOVE) Act to strengthen the federal government's power in enforcing UOCAVA. It mandated states to provide electronic communication with overseas voters in order to inform them of their ballot status, and also expanded the federal write-in ballot to include "general, special, primary, and runoff elections for Federal office."<sup>77</sup> Since its enactment, the law and its subsequent modification have been successful in affordably allowing citizens and armed service members to cast their votes from around the world. However, the current feasibility of this affordability is coming under question as of this writing, as the United States considers withdrawal from the Universal Postal Union. Due to a current trade war, the administration has a desire to cut China's shipping subsidies to the U.S. under the Union's regulations. While there are reassurances from the Defense Department that there would be "minimal disruptions" from a withdrawal, concerns still remain for the ability for overseas voters to cast their ballots successfully and effectively.<sup>78</sup> Aside from current U.S. foreign policy threatening the continued success of these acts, the MOVE Act and UOCAVA further tested the ability for the federal government to mandate nationwide standards for election administration, as well as a state-implemented separate federal ballot.

### 3.2.2 Mid-20th to 21st Century Legislation

The National Voter Registration Act of 1993 was another step in terms of increasing Congressional oversight on election administration. In mandating certain voter registration standards across the country for federal elections, the law required every non-exempt state's application for a driver's license to also serve as an individual's voter registration, and also accept voter registration applications through the mail. This became commonly known as "motor voter" law. In addition, the NVRA protected citizens from being removed from voter registration lists due to inactivity, or any other reason. These provisions were qualified under the authority of the Fourteenth Amendment to ensure every citizen has an equal right to vote and equal protections across state lines. The findings of the law detailed that, "discriminatory and unfair registration laws and procedures can have a direct and damaging effect on voter participation ... and disproportionately harm voter participation by various groups, including racial minorities."<sup>79</sup> This act, much like other electoral reforms, was

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<sup>76</sup> Federal Write-in Absentee Ballot. PDF. Federal Voting Assistance Program, 2013.

<sup>77</sup> H.R. 2647, 111th Cong., Subtitle H, § 576 (2010) (enacted).

<sup>78</sup> It remains to be seen, as of this writing, whether this issue is likely to be resolved. Nonetheless, see: Theobald, Bill. "Costs to Mail Ballots May Skyrocket for Civilians, Military Living Overseas." The Fulcrum. August 19, 2019. Accessed August 19, 2019. <https://thefulcrum.us/voting/overseas-mail-in-voting>.

<sup>79</sup> H.R. 2, 103rd Cong., §2 (1993) (enacted).

challenged in the courts. Its upholding further showed the federal government's ability to create election administration guidelines, protocols, and standards.

The aforementioned power of the federal government to mandate nation-wide processes and protocols was taken a step further with the Help America Vote Act (HAVA). Signed into law by President Bush in 2002, HAVA enacted new national guidelines for voter registration databases, voting information, and administrative complaint procedures. In an effort to avoid similar issues encountered in the election of 2000 in Florida, HAVA made possible the replacement of outdated voting machines, plus a requirement for states to implement a provisional ballot. To implement and provide funding for these initiatives, the act created the Election Assistance Commission (EAC) to "serve as a clearinghouse for election administration information."<sup>80</sup> While the EAC serves to oversee implementation of provisions of the legislation, including:

- developing voluntary voting system guidelines;
- a process for certification;
- creating and promulgating open data standards; and of course,
- distribute the necessary federal funding to replace outdated equipment as well as make grants for certain election innovation efforts,

...notably the EAC is *not* an enforcement agency, compared to the Federal Election Commission or the Federal Trade Commission.

Significant progress has been made since 2002 to ensure accessibility to voting for all Americans, however, the issue of election security has been all but left to the wayside. Some of the only measures immediately taken in regards to election security were actually addressing election integrity because it was in pursuit of voter fraud. Although investigations were widespread, outside of some isolated minor incidents, the fact is, substantiated evidence of significant and intentional crimes has never been discovered. Most who were charged by the Justice Department "[appeared] to have mistakenly filled out registration forms or misunderstood eligibility rules," according to a review of court records.<sup>81</sup>

Practically speaking, furthering election security has only recently been re-established as a priority to the EAC. In 2018, a new allotment of HAVA funds from the EAC authorized by Congress totaling \$380 million was distributed amongst the states with the purpose of protecting election infrastructure. According to Alex Padilla, California Secretary of State, "The recent federal appropriation was simply the final disbursement of money originally

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<sup>80</sup> "The Help America Vote Act Of 2002." The United States Department of Justice. August 08, 2015. Accessed August 10, 2019. <https://www.justice.gov/crt/help-america-vote-act-2002>.

<sup>81</sup> Lipton, Eric, and Ian Urbina. "In 5-Year Effort, Scant Evidence of Voter Fraud." The New York Times. April 12, 2007. Accessed August 11, 2019. [https://www.nytimes.com/2007/04/12/washington/12fraud.html?pagewanted=2&\\_r=1](https://www.nytimes.com/2007/04/12/washington/12fraud.html?pagewanted=2&_r=1).

approved in 2003 to address the debacle of the 2000 presidential election in Florida.”<sup>82</sup> This is an example, as per § 1.3, of funding distributed by the federal government that states are allowed to spend and allocate in-line with their prerogatives. While the largest portion of the \$380 million was allocated towards cybersecurity, over ten states chose to invest the entirety of their grants elsewhere including: upgrading voting equipment; updating and securing voter registration systems, and approximately 5.1% of the funds have gone toward election audits.<sup>83</sup> According to the EAC, the funding was made available as quickly as possible in order to support the 2018 midterm elections, yet only ~8% of the \$380 million was spent before the election.<sup>84</sup> Some argue this delay is actually beneficial, as rushing to implement short-sighted changes could bring about more problems, as seen with the security concern of the rapid implementation of paperless voting after HAVA’s initial allocations in 2002.<sup>85</sup>

To proponents of increasing federal oversight in elections, such a lapse in the timely allocation and spending of federal funds is a prime example of a disadvantage to decentralization. However, to those who believe states should spend federal funds on how they desire to best suit their population, the ability for each state to allocate their funds independently, in-line with the overarching goal of increasing election integrity, is a fundamental constitutional right. Regardless, historic legislation from the last century and beyond has made changes to the electoral system that have impacted nearly every level of election administration. In an increasingly partisan polarized environment, fierce party-line divisions impact nearly every decision made by the federal government. While legislation as groundbreaking as the Civil Rights Acts or HAVA may be less likely to pass going forward, there are still efforts from all sides of Congress to enact change to election administration.

### 3.3 What is Congress Currently Doing?

In the 116th Congress, across both the House and Senate, there have been dozens of bills supporting and endorsing various degrees of reform to the electoral system. In one of the most significant pushes for election reform in recent decades, there has been legislation introduced regarding automatic voter registration, voter ID requirements, paper-ballot mandates, vote-by-mail elections, and many other proposals. In terms of vote-by-mail proposals, the first of many appeared led by H.R. 1. Amongst its wide range of reforms, the bill specifically called for amending HAVA to add an entire subsection titled, “Promoting Ability of Voters to Vote-by-

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<sup>82</sup> Padilla, Alex. "Election Officials Have Plenty to Learn from Hackers." The Hill. August 21, 2018. Accessed August 12, 2019. <https://thehill.com/opinion/cybersecurity/402458-election-officials-have-plenty-to-learn-from-hackers>.

<sup>83</sup> Patterson, Blake, and Ally J. Levine. "A \$380 Million Government Fund Meant to Protect Elections May Be Too Little, Too Late." Pacific Standard. September 04, 2018. Accessed August 9, 2019. <https://psmag.com/news/a-380-million-government-fund-meant-to-protect-elections-may-be-too-little-too-late>.

<sup>84</sup> Weil, Matthew, and Joshua Ferrer. "States Are Waiting to Spend New Federal Election Money-And That's a Good Thing." Bipartisan Policy Center. November 2, 2018. Accessed August 11, 2019. <https://bipartisanpolicy.org/blog/states-are-waiting-to-spend-new-federal-election-money-and-thats-a-good-thing/>.

<sup>85</sup> *Ibid.*

Mail.”<sup>86</sup> In doing so, provisions were added mandated that states would be unable to impose additional qualifications or restrictions on qualified voters to receive mail-in absentee ballots for federal elections. The bill, passed by the House on March 3rd, 2019, was left untouched after its forward to the Senate.

The desire to institute reform as shown in H.R. 1, however, has not been lost on many members from both chambers of Congress. Bills which would enact various degrees of a vote-by-mail federal ballot have been proposed by Senator Klobuchar (S.1397), Senator Wyden (S.26), Representative Blumenauer (H.R.92), Representative Rouda (H.R.2341), Senator Cornyn (S.1566), and Representative Davis (H.R.138). Many of these bills, while varying slightly in terms of content, all desire to ensure widespread accessibility to voting, and expanding voting rights. While many of these bills regard voting-by-mail or automatic voter registration, S.1566 differs slightly in that its scope is directed towards amending UOCAVA to increase accessibility to absentee ballots for members of the armed forces. Representative Rouda’s proposal with H.R.138 differs from this theme as well; her bill focuses directly on ensuring the Postmaster General informs individuals to change their addresses in order to keep their voting registration proper. The other four pieces of legislation are centered on implementing a universal absentee ballot for federal elections. As opposed to H.R.92, and S.1397’s exclusive focus on vote-by-mail, HS.26 and H.R.92 would additionally move to amend the National Voter Registration Act of 1993 to implement automatic voter registration. The reasoning Wyden and Blumenauer give for their proposal is multi-faceted; they argue there are immense cost savings, turnout improvement, and practicality benefits to universal vote-by-mail.

Of the many proposed election reform bills, whether relating to vote-by-mail, federal ballot, or other changes, few have been discussed or passed outside of committee both chambers of Congress. Meaningful progress towards a solution to the many security, practicality, and cost concerns of the current electoral system is slow-moving. Candidly, it is doubtful any of these measures will pass through Congress, as critics of such election reform argue the federal government has no power to mandate states to administer absentee ballots, and this Congress, under Republican control in the Senate, has shown little appetite for any election administration reform or security improvements.

However, in order to ensure the integrity of one of the most foundational pillars to our democracy, there must be a bipartisan push toward enacting purposeful and pragmatic reform. However, realistically as the 2020 election cycle ramping to full strength, reforms seem unlikely. Indeed, election officials nationwide are now locking down what they have, preparing for what is to come in just less than a year, and operating in an environment of “patch and pray, then brace for impact.” Accordingly, while this paper is published nine months out from the 2020 election, it is understood that the concept of a by-mail, state central count federal ballot is a *forward-looking* strategic proposal to catalyze conversation. Securing national elections from attack should be a top priority. A federal ballot is one possibility, but not in this Congress, and nowhere near in time for 2020. 2024 may be a more realistic target.

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<sup>86</sup> For the People Act of 2019, 1, 116th Cong., Subtitle I (2019).

## Section 4

### The Courts

#### 4.1 Overview

While Congress may make laws depending on their interpretation of the Constitution, the Judicial system is what determines whether or not that interpretation is valid. Any proposed legislation to change the electoral system must be able to withstand a court challenge, as have many election reforms in the past. The main topic at hand is that of federal interests and states rights to administer their own elections. This issue is found more broadly within the age-old struggle for balance between federal interest and states' rights in the Court. There has been an ebb and flow over the Court's long history of precedents in regards to federalism, and there is a delicate equilibrium that must be maintained to prevent tyrannious behavior from either side.

Some may argue the Court looks less favorably on federal interest more recently than it has in the past. However, the Constitution would still be applied just the same as it has been, with substantial precedent-setting the stage for a prospective court challenge to a federal ballot. These precedents are considered to help make a judgment on a federal ballot's legality. While looking at more general rulings can aid in determining the broader constitutionality, there are more specific cases that can paint a narrower picture, requiring less extrapolation and guesswork from the more broad rulings. These narrow rulings, which have detailed Congress' power to legislate through court challenges to legislation, could be more telling as to a federal ballot's possible fate in the courts.

#### 4.2 How have the Courts Ruled on the Regulation of Elections?

##### 4.2.1 Historic and Broad Cases

Some of the long-standing rulings on Congress' power to legislate with regard to elections have withstood the test of time for nearly a century; these older cases help establish the basis for understanding more contemporary cases. In 1934, *Burroughs v. United States* was argued; the circumstances of the case revolved around a constitutional challenge to the Federal Corrupt Practices Act (FCPA). When the bill was passed in 1925, it mandated the reporting and filing of political contributions in political election committees to the clerk of the House of Representatives. A lobbyist had charges brought against them in violation of the FCPA, so in retaliation, the charges and the law itself were constitutionally challenged under Article II, Section 1. The Washington D.C. Court of Appeals found the FCPA to be unconstitutional, overruling a district court's decision. This, in turn, was overturned by the Supreme Court, with the majority upholding Congress' power to legislate the administration and mechanics of elections. Justice Sutherland, delivering the majority opinion, wrote:

“To say that Congress is without power to pass appropriate legislation to safeguard such an election from the improper use of money to influence the result is to deny to the nation in a vital particular the power of self-protection. Congress undoubtedly possesses that power, as it possesses every other power essential to preserve the departments and

institutions of the general government from impairment or destruction, whether threatened by force or by corruption.”<sup>87</sup>

While not tying their decision to Congress’ ability, as per Article I, Section 4, to legislate the time, manner, or place elections are held, the Court’s majority held that Congress has the right to legislate in order to protect election integrity when threatened. Yet, such a long-rooted precedent has had a rather subtle impact on the allocation of power for the federal government to make and regulate laws on elections; much of the impact has been focused on cases relating to corruption legislation. Regardless, the power acknowledged by the Court in *Burroughs* indicates that Congress has considerable discretion to protect the sanctity of elections.

In continuing to look broadly at the power of the federal government to regulate elections, the peculiar circumstances behind *Bush v. Gore* give an invaluable glimpse into how the Court could rule on behalf of equal protection disputes. Due to the number of contested ballots and a small margin of victory between George Bush and Al Gore in the election of 2000 in Florida, there was a manual recount mandated by the Florida Supreme Court across all counties in the state. Flawed in their creation, the butterfly ballots used by Florida left the opportunity for small pieces of paper to affect the vote-counting machines, leading to the risk of having thousands of ballots misread, and miscounted. The recount mandated by the Florida Supreme Court was without standards, allowing each county to count and tally their ballots arbitrarily. According to the majority opinion of the Supreme Court, this was directly in contention with the guaranteed Fourteenth Amendment right that one person's vote is not valued over that of another.<sup>88</sup>

While the precedent set in this case was purposefully limited in that its “consideration is limited to the present circumstances,”<sup>89</sup> Justice Roberts believed that the overarching issues of the equal protections clause may be the subject of future cases.<sup>90</sup> This leaves an opening for the case that different implementations of voting systems can cause a similar devaluation of some votes over others around the country. The argument that such a contrast in election integrity could value some votes over others would not be particularly contrived, mainly due to varying chances and opportunities of compromise between voting systems across counties and states. As a result, Congress may be able to utilize the Fourteenth Amendment as backing to their Article I Section 4 powers to assert federal interest in securing national elections. However, the argument of equal protection, as shown in more recent cases involving challenges to legislation, is not bulletproof.

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<sup>87</sup> *Burroughs & Cannon v. United States*, 290 U.S. 534 (1934)

<sup>88</sup> *Bush v. Gore*, 531 U.S. 98 (2000) Despite violating the Fourteenth Amendment by using disparate vote-counting procedures in different counties, Florida did not need to complete a recount in the 2000 presidential election because it could not be accomplished in a constitutionally valid way within the time limit set by federal law for resolving these controversies.

<sup>89</sup> *Ibid.* §II, (B)

<sup>90</sup> Hansen, Rick. "Election Law: More of Judge Roberts' Views on Bush v. Gore and Voting Rights." *Election Law Blog*. September 23, 2005. Accessed August 11, 2019. <http://electionlawblog.org/archives/004057.html>.

## 4.2.2 Court Challenges to Legislation

For a more magnified view into the legality of a federal ballot, Supreme Court rulings in regards to legislation, whether it be Voter ID laws, or other election administration-related laws, will ultimately help predict how a bill mandating vote-by-mail would fare in the courts. Decided in 2008, *Crawford v. Marion County Election Board* upheld a law passed by the Indiana legislature in 2005 which required legal identification with a residential address to be presented by voters at the polls. The appellants argued that these laws would bring about disenfranchisement to voters who were unable to obtain photo identification cards; however, the Court ruled that the burdens imposed on voters were not severe enough to warrant striking down the law. In Indiana, photo identifications are free of charge, and only require the “the inconvenience of going to the Bureau of Motor Vehicles, gathering required documents, and posing for a photograph.”<sup>91</sup> Those who cannot get a photo identification or have theirs with them at the polls could cast a provisional ballot, providing they execute a sworn affidavit, or subsequently show their identification, at the city clerk’s office. The majority opinion found that these minor inconveniences were justified in the State’s pursuit to deter and detect voter fraud, especially considering the “historic maladministration” of Indiana’s voter registration rolls.<sup>92</sup>

*Arizona v. Inter-Tribal Council of Arizona*, while in-part brought about by Voter ID laws, concluded with a ruling that impacted federal supremacy of election administration regulations. In the 2013 case, a lawsuit was brought against the legality of a Voter ID law requiring proof of citizenship when registering to vote. A district court upheld the rule as constitutional, but the Ninth Circuit Court of Appeals argued that under the National Voter Registration Act, these additional requirements to register to vote violated the standards of voter registration mandated nationwide. The Supreme Court affirmed the Ninth Circuit’s decision, holding that mandates implemented by Congress under the Elections Clause preempt state-level regulations, such as voter registration requirements.<sup>93</sup>

The established precedent of voter ID laws has had a mixed impact in the years since the Court’s ruling. In 2016, a strict North Carolina voter ID law was struck down in the Fourth District Court of Appeals, under the opinion that the law unfairly impacted African American voters. The blockage of the rule was upheld by the Supreme Court in 2017, showing leniency in regards to some laws.<sup>94</sup> In October of 2018, however, a similar appeal was presented to the Supreme Court, albeit with a different conclusion. The Court chose not to overturn an appeals court ruling which allowed for the enforcement of voter ID laws in the 2018 election. These laws mandate voters to show photo identification with a residential address, but in the case of North Dakota’s large population of Native Americans, many lack a

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<sup>91</sup> *Crawford v. Marion County Election Bd.*, 553 U.S. 181 (2008)

<sup>92</sup> *Ibid.*

<sup>93</sup> *Arizona et al. v. Inter Tribal Council of Arizona et al.*, 570 U.S. 1 (2013)

<sup>94</sup> Domonoske, Camila. "Supreme Court Declines Republican Bid To Revive North Carolina Voter ID Law." NPR. May 15, 2017. Accessed August 13, 2019. <https://www.npr.org/sections/thetwo-way/2017/05/15/528457693/supreme-court-declines-republican-bid-to-revive-north-carolina-voter-id-law>.



legal street address in their reservations. Challengers to the law made the argument that these new regulations would create widespread disenfranchisement disproportionately among Native Americans, but it was unsuccessful.<sup>95</sup> With the selective enforcement of such a precedent, many of these decisions by the Supreme Court should be taken with a grain of salt, as their doctrines may not hold true in every scenario.

To explore further into more specific cases relating to similar electoral reform at the level of a federal ballot, the 1970 court challenge to the Voting Rights Act Amendments is a valuable segue into more modern cases on the topic. In *Oregon v Mitchell*, the Court ruled that while Congress had the power to change the voting age for federal elections, ban literacy tests, and lift state residency requirements, these amendments to the Voting Rights Act could only apply to federal elections, not state or local.<sup>96</sup> This coincides with Congress' enumerated powers in Article I, Section 4, and Article II, Section 1 in terms of being limited to oversee and regulate elections exclusively at the federal level (as per §2.3). Due to the fact that a by-mail separate federal ballot would only directly affect congressional and presidential elections, the *Oregon* decision shows an opening for further oversight and change.

This oversight, though already relatively limited in its scope, was further challenged in 2013 with a lawsuit in regards to Sections 4(b) and 5 of the Voting Rights Act of 1965. Section 4(b) mandated districts with less than 50% turnout in 1964 to prove any new or changed election procedures to either the Attorney General or a panel of district court judges; section 5 held that any of the aforementioned districts would be prohibited from enacting changes to elections without official approval.<sup>97</sup> In *Shelby County v. Holder*, litigants argued that these mandates of over 50 years were unconstitutional, putting an unfair burden on the specific states which historically conducted voter suppression. While the Court upheld these sections through a number of cases in the past, the fact that these measures were meant to be temporary, yet the metrics of its coverage formula were unchanged for half a century. Writing for the majority, Justice Roberts believed that the burdens of the Act were no longer justified by the needs to eliminate voter suppression at the level it was at when the measures were first passed.<sup>98</sup> In the case of a federal ballot, the *Shelby* decision indicates that its implementation must ensure no unfair burdens are placed on certain states; additionally, the need for such legislation and reformative measures must outweigh those burdens.

Despite the more current indecisiveness when it comes to decisions relating to election power delegation, the Supreme Court has historically upheld the powers of Congress as vested in them by the Elections Clause, and their implied powers to protect and oversee elections. Wide in their reach, these powers have been kept in check by states, limiting the federal government from meddling with state and local election administration, and

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<sup>95</sup> Wheeler, Lydia. "Supreme Court Allows North Dakota to Enforce Voter ID Laws." The Hill. October 09, 2018. Accessed August 13, 2019. <https://thehill.com/regulation/court-battles/410650-supreme-court-allows-north-dakota-to-enforce-voter-id-laws>.

<sup>96</sup> Crawford v. Marion County Election Bd., 553 U.S. 181 (2008)

<sup>97</sup> Shelby County v. Holder, 570 U.S. 529 (2013)

<sup>98</sup> *Ibid.*

infringing on the rights of people and states. As shown in the *Crawford* or *Shelby County* decisions, there is a precedent that without the justification to act outweighing the burden placed on individuals or states, Congress cannot implement new mandates or regulations. The modification of a federal ballot's implementation to each state's needs, and to best serve the people within them, must be an utmost priority of proponents of an all-mail federal election. Without proper consideration for undue burdens laid on people or states, advocates' ultimate goals for a federal ballot, to both simplify and fortify elections, would be lost in its pursuit.

## Section 5 Summary

To effectively inform discussion and debate, it is important that the entire context of an issue, from all angles, is adequately explored. Accordingly, the aim of the OSET Institute has been to ensure the conversation considers all aspects of a proposal to improve the security of election systems specifically for national elections.

However, ultimately reasonableness, rationale, or even common sense regarding process and platform innovations or modifications are not realistic absent consideration of constitutionality. The question of constitutionality is simply put, non-trivial. While the ultimate decision of a federal ballot's constitutionality would be left to the judgment of the Supreme Court, Congress must still act to ensure national elections are not as susceptible to widespread compromise as they have been in years past. This holds for whatever initiative may be considered, a by-mail federal ballot, or other solution.

Before turning to the summary of constitutionality, we consider in summary the value proposition of a federal by-mail ballot under the states' control using central count. In a federal vote-by-mail system, where ballot items would only pertain to federal offices and centrally counted in each state, there is a range of viewpoints on the practicality, security, and costs of executing such a change. In terms of practicality and simplicity, there is a case to be made by proponents about the convenience of voting from home within a multiple-week timeframe. However, there are significant concerns with the implementation of a separate ballot, exemplified in states already running their elections entirely by mail. To avoid excessively burdening these states, the alteration and tailoring of a federal ballot's implementation would be key. There cannot be a successful solution without mindfulness of how each state administers their election systems.

While the surface area of attack would be significantly limited, and central ballot count would aid in informational security, many continue to have concerns about centralization of election processes. Until recently, the security of American elections had been claimed to stem from its balkanization by design. That is increasingly understood to be a straw argument that collapses in the reality of the infrastructure itself.

A cost analysis of such a system change points toward savings across the country in terms of election infrastructure operating costs. Specifically, savings of over 95% can be had by the reduction in the number of permanent hirings required to protect elections from foreign interference given the central count of a by-mail federal ballot vs. the protections required for the broad surface of precinct-level administration.

Turning to the Constitutional question, as well as the viewpoints of Framers at the time it was drafted, the powers enumerated to Congress to oversee and legislate elections can add more context to the possible constitutionality of a federal ballot.

Hamilton, in Federalist 59, specifically wrote of a desire to ensure the federal government, and specifically Congress, has the means to ensure its own survival, through the power to govern elections of its members if a need arose. This was explained through the use of “*extraordinary circumstances*,” which is a designation lacking a modern interpretation, thus limiting its power to have any direct effects on policy. Regardless, the desires of the Framers to protect elections was specifically mentioned in later papers. In Federalist 68, the Framers considered the threat of foreign intervention to be one of the single most existential threats to the democratic republic.

While Congress was initially granted the power to regulate the *time* and/or *manner* of Congressional elections, the Seventeenth Amendment expanded Congress’s ability to make or change regulations with regard to the *place* where elections are conducted, thereby increasing their oversight to the same level as the states. Other amendments, such as the Fifteenth or Nineteenth, added a new dimension of Constitutional federal oversight, by granting Congress the ability to regulate and enforce who is allowed to vote, a power previously left to the states.

The regulatory powers Congress was granted through these amendments, and specifically the Elections Clause, have not gone unused, as seen through a multitude of election-related legislation passed through both chambers in the last century. Beginning with the Reconstruction period, Congress began to use their powers, albeit sparingly, to exert their federal interest over national elections. An early exercise of these powers came in the form of the Civil Rights Act of 1870, and its enforcement of the right to vote in the form of legal recourse for those denying that right to African Americans. What was an early effort by Congress to protect the sanctity of elections has stood to show that the federal government has maintained a valid interest in protecting national elections and regulating their administration. Further changes to election administration occurred throughout the 20<sup>th</sup> and 21<sup>st</sup> centuries, with the NVRA, UOCAVA, HAVA, MOVE and other legislation. The endurance of many of these pieces of legislation through court challenges shows a level of deference that the Court has maintained to allow Congress a sensible degree of national election policy making power.

Ultimately, looking at case-law regarding election oversight from the federal government will be the most valuable to determine the viability of a federal ballot, due to its direct impact on the legality and constitutionality of other similarly-scaled reforms in the past.

In the aftermath of the Civil War, the Supreme Court began a push towards an increase in the federal government’s ability to exert oversight related to the Elections Clause.<sup>99</sup> While Congress has used these powers sparingly, court challenges to legislation cropped up over time. Since this initial delegation of broad election powers to the federal government, the Court has not entirely stood behind their initially wide interpretation of the Elections Clause. As seen in *Shelby v. Holder*, the power of the Elections Clause was successfully challenged, and federal oversight decreased. This precedent will likely help determine the validity of legislation which imposes significant changes by weighing the benefits of a system-change and needs of the country, against the undue burdens they may place on states or citizens. As a consequence of *Shelby*,

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<sup>99</sup> Tolson, Franita. "The Spectrum of Congressional Authority over Elections." *99 Boston University Law Review* 317, February 26, 2019, 24-35.

section 4(b) of the Voting Rights Act was stricken, and section 5 became moot, showing a renewed attention to preserving states' election authority.

Depending on the circumstances, other cases show similar level of attention to ensuring the Constitutional right of election oversight is granted to the federal government, specifically in regard to federal elections, as shown in the *Oregon* and *Arizona* decisions.

There are many indicators that point towards the ability for Congress to implement a universal vote-by-mail federal ballot, with a centralized vote-count by each state. There are also several valid concerns with such a system to blindly push it to the states.

With the ultimate goal of securing national elections, the groundwork of this paper to catalyze policy conversation on alternative election systems is just a start to ensuring that public trust in our democracy can endure.

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Gregory Miller co-founded the Open Source Election Technology (OSET) Institute in November 2006. OSET is a Silicon Valley 501.c.3 nonprofit election technology research & development organization and democracy software foundry. Mr. Miller is a veteran of the technology sector with nearly 4-decades of experience as a computer scientist, software engineer, brand and product marketing executive, and an intellectual property and technology policy lawyer. His business, legal, and technical experiences have included stints or engagements with Apple, Computervision, Netscape Communications, NeXT Computer, Sun Microsystems, Tektronix/TekLabs and briefly in private law firm practice and the venture capital community.

At the OSET Institute, Gregory leads all aspects of the organization’s resource development, corporate marketing, corporate and R&D alliances development, public outreach, election official stakeholder relations, and government and legal affairs. Mr. Miller is also a volunteer subject matter expert in elections technology integrity and security to NBCUniversal and various agencies of the national security apparatus and community. Gregory has been active in the American Bar Association focused on technology policy issues, Information privacy & security, Internet governance and more recently, election law. He is also a member of the Congressional Internet Caucus Advisory Committee, and a sustaining member of the Internet Society. Mr. Miller served on the San Francisco Voting Systems Task Force from 2010 to 2012, and works closely with the Institute’s public policy team in advising and informing Congress, the Executive Branch, and States’ governments on election technology and related security matters.

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## Appendix A

### Cost Modeling Assertions

To best estimate the Rough Order of Magnitude (“ROM”) cost model, the purpose of assertions is to simplify variables and focus more on framing the problem by using generally accepted knowledge in the cybersecurity and election technology communities. Rather than diluting the final figure by exploring every aspect of each variable involved, these assertions eliminate the need, and simplify the model. The ROM model of [Section 1.4](#) et seq is useless without these.

- The current system of conducting elections in the United States is under the imminent threat of foreign compromise or interference, and there must be measures taken to secure them.
- The current total election administration costs are drawn from the 2013 Presidential Commission on Election Administration (PCEA) final report.
- The federal government would have the power to mandate the permanent hiring of staff at elections offices across the country.
- The ~7,400 small and medium election jurisdictions do not have sufficient in-house IT support in order to properly facilitate cybersecurity protocols.
  - The 462 large jurisdictions already have adequate IT support in order to enact cybersecurity measures.
- Due to the fragmentation and independence of each of the ~7,900 jurisdictions’ election management systems, an IT expert would be unable to service multiple different jurisdictions simultaneously.
- A cybersecurity expert would need to be physically present in order to enact security protocols at election jurisdictions across the country.
  - Utilizing a similar system as Illinois has established in every small and medium jurisdiction, with one ‘roaming’ cybersecurity expert to cover ten jurisdictions, allows for the most efficient coverage by the experts to not waste money or time .
  - Large jurisdictions, serving over 50,000 voters, would need one expert per jurisdiction, due to a larger amount of infrastructure and data.
- Salary for IT and Cybersecurity staff can be estimated via the nationwide average.
  - A multiplier of 1.3x can be applied to the cost of salaries, as per job-cost research, in order to calculate the total cost of employment including taxes and benefits.
- To estimate basic infrastructure costs of each of the the central ballot counts, Denver County is the largest example of a central ballot count, and can serve as a baseline.
  - By scaling the costs of Denver upwards non-linearly, economies of scale can be estimated.
  - States can be grouped into three size categories, as relatively small differences in size would make a minimal difference in centralized costs.
    - Per-voter expenses such as postage, or other related costs, can be added to this basic infrastructure cost by looking at the cost-per-vote of each of these categories as per Pew research.
- For the centralized ballot-count locations, number of staff and basic infrastructure costs can initially reduced due to the basic principle of “economies of scale.”
  - With assimilated data, rules, and procedures, IT and cybersecurity staff will be able to oversee a larger amounts of data per-person, reducing the number of necessary staff.

## Appendix B

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