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**Review of the Federal Voting Assistance Program's
Electronic Absentee System for Elections (EASE 1) and
Effective Absentee System for Elections (EASE 2)
Pilot Programs
Report to Congress**

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Section 1: Executive Summary

In 2011 and 2013, the Federal Voting Assistance Program (FVAP) engaged in pilot programs that provided grants to state and local election jurisdictions seeking to more effectively comply with the requirements of the *Military and Overseas Voter Empowerment (MOVE) Act* of 2009. Of particular interest to this research was the advent of blank ballot delivery systems in response to congressional requirements enacted through the MOVE Act for each state to offer the military, their eligible family members and overseas citizens an electronic means of receiving blank ballots.

The “Electronic Absentee System for Elections” (EASE 1) and the “Effective Absentee System for Elections” (EASE 2) pilot programs focused on developing and testing innovations to improve voters’ ability to obtain and return ballots under the Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA). It accomplished this by providing funding for a wide variety of pilot programs throughout the nation. The funding was provided in two waves of grants (EASE 1 and 2). This program was initiated from recommendations offered within the 2010 Electronic Voting Support Wizard (EVSZ) Technology Pilot Program Report to Congress. The first recommendation in the EVSZ report was that FVAP should examine the use of grants to assist states with the deployment of blank ballot delivery systems and to develop significant and sustainable tools to overcome difficulties that UOCAVA voters face or improve their voting experiences. The second recommendation was that FVAP should examine ways to enable greater data standardization.

This report summarizes and evaluates the EASE 1 and EASE 2 grant pilot programs. This analysis derives three conclusions from EASE 1 and EASE 2:

1. An important next goal for FVAP is focusing on improving electronic blank ballot delivery for *UOCAVA* voters, particularly improving the usability of electronic blank ballot delivery systems for election officials and *UOCAVA* voters;
2. Any future research grant programs like EASE 1 and EASE 2 should provide a quantitative evaluation of whether the voting innovations studied improve *UOCAVA* voting success rates; and
3. Any future research grant programs must require that participating jurisdictions provide detailed quantitative evaluation plans that are approved before funding, that are finished before each project’s completion, and that provide consistent and detailed transaction-level data for evaluation across pilot projects.

Based on this report, future grants research efforts will need to study innovations in *UOCAVA* blank ballot delivery systems. This is done by requiring a discrete research design, and the use of standardized data for each grantee to better assess the success of the technology funded through the grants. Any future reporting data standard would benefit from the transaction-level use data consistent with newly developed data standards as adopted by the Council of State

Governments' Overseas Voting Initiative, a cooperative agreement funded by the Federal Voting Assistance Program. This data standard is well-suited for quantitative evaluation of the effectiveness of the proposed innovations on *UOCAVA* voting success rates across jurisdictions and did not exist at the time the EASE 1 and EASE 2 grant programs were established.

Section 2: EASE 1 and EASE 2 Grant Programs

Evaluation

Introduction and Summary

The mission of the Federal Voting Assistance Program (FVAP) is to ensure that U.S. citizens covered by the *Uniformed and Overseas Citizens Absentee Voting Act (UOCAVA)* are knowledgeable of their voting rights, and that they have the resources necessary to successfully request and return their ballots. Individuals covered by *UOCAVA*, as amended by *the Military and Overseas Citizens Empowerment (MOVE) Act*, include members of the Uniformed Services, members of the Merchant Marine, their family members, and U.S. citizens residing outside the United States. Thus, FVAP needs to ensure that these U.S. citizens can successfully vote from across the world.

As part of this mission, FVAP has launched and facilitated original research on the *UOCAVA* population, their specific voting requirements, and on the barriers that might make it difficult for *UOCAVA* voters to obtain, mark, and return their ballots successfully. Additionally, FVAP works in close partnership with election officials throughout the states, territories, and the District of Columbia. It also works closely with the Military Services, Military Departments, U.S. Department of State, and the U.S. Department of Justice to as they assist with the *UOCAVA* absentee voting process.

In 2009, Congress enacted *the MOVE Act of 2009*, which required, among other things, that states and localities offer *UOCAVA* voters the option to obtain their ballots electronically. In an effort to stimulate innovation in this area, FVAP launched the Electronic Voting Support Wizard project in 2010. Subsequently, FVAP launched further grants in 2011 and again in 2013, in which FVAP funded states and localities' efforts to try and improve the voting success of *UOCAVA* citizens.

Two waves of research grants for pilot studies (EASE 1 in 2011 and EASE 2 in 2013) were used to implement different research activities seeking to improve *UOCAVA* voting services. This section reviews and evaluates the EASE 1 and EASE 2 grant programs.

EASE 1 and EASE 2 Findings

Grant Authority

FVAP has broad authority for grant programs like EASE 1 and EASE 2, and for similar pilot programs, under section 20311 of title 52 U.S. Code (U.S.C.). This broad authority for technology pilot programs requires that FVAP provide a report to Congress with recommendations for the possible conduct of future additional pilot programs, as well as recommendations for legislative and administrative actions if necessary and appropriate. Specifically, states and localities are an excellent laboratory for research and testing of new approaches for improving *UOCAVA* balloting success. Under the federal granting authority provided by section 6304 of title 31, U.S.C., FVAP developed the EASE 1 and EASE 2 research grant programs to conduct pilot projects for innovations in elections technology that would benefit *UOCAVA* citizens from participating state and local jurisdictions. By using this grant authority for states and localities, FVAP has launched a number of research initiatives across many state and local election jurisdictions that cover a broad array of new election technologies and initiatives.

FVAP Research and Publication Process

As part of its mission of assisting *UOCAVA* citizens in exercising their voting rights, FVAP implemented an aggressive research agenda, especially since 2010. This research agenda encompassed three different independent areas of study.¹ First, FVAP conducted regular surveys, collecting important information on the voting resources that *UOCAVA* citizens use, and on the potential barriers they face when they try to obtain and return their balloting materials. The *UOCAVA* citizen surveys included specific surveys of active duty military (ADM) members, military spouses, and non-military overseas citizens. FVAP's survey studies also focused on those providing direct assistance to many *UOCAVA* citizens: Voting Assistance Officers (VAO), Unit Voting Assistance Officers (UVAO), and local and state election officials involved in the *UOCAVA* voting process.

Second, FVAP conducted research studies mainly in response to data collected in FVAP surveys. These research studies included examinations of:

- issues with international mail;
- interpersonal and familial connections and how they might enhance *UOCAVA* voting successes;
- resource use by *UOCAVA* covered voters and evaluation of FVAP's website; and,
- comparisons of *UOCAVA* voter participation rates with civilian voter participation rates.

¹ FVAP's research is documented at <https://www.fvap.gov/info/reports-surveys>. Archived there are research reports, summaries of research, and public-release survey data sets.

One particular focus of FVAP research studies during this period has been a series of research projects seeking to develop methodologies to collect information on the population of civilian *UOCAVA* voters, and studies using data collected from the Overseas Citizens Population Analysis (OCPA) project. This aspect of FVAP's research agenda has produced a record of studies with useful and actionable analyses and recommendations for FVAP and state and local election officials.

Third, FVAP conducted research on the use of electronic technologies to facilitate *UOCAVA* ballot request and return.² The research conducted by FVAP in this area consisted of:

- the development of a comprehensive methodology for assessing risks of electronic and non-electronic ballot transmission and receipt systems;
- research studies focused on remote kiosk voting systems; and,
- research on the development of usability, security, and software assurance methodologies and tools for the evaluation of electronic election technologies.

This component of FVAP's recent research agenda was summarized in the December 2015 publication of a summary report, "Review of FVAP's Work Related to Remote Electronic Voting for the *UOCAVA* Population."³

In the electronic voting demonstration project summary report, FVAP noted three important findings with respect to the studies conducted as part of that research agenda, findings that hold as well for the entire body of FVAP research since 2010. These findings are important to quote here, as they help to establish the foundation of the EASE 1 and EASE 2 grant programs:

- (1) "FVAP is best suited to helping election jurisdictions understand the challenges faced by *UOCAVA* voters and explain how their processes and/or systems may serve or hinder *UOCAVA* citizens."
- (2) "The ever-changing threat environment and recognition of information security capabilities within DoD creates pressures for FVAP to expand its role in serving *UOCAVA* voters directly. Although FVAP does provide voters and election officials with information on the voting process for the *UOCAVA* population, the ultimate responsibility for certifying the results of an election rests with each state and its state election official."
- (3) "FVAP can also help state and local governments understand the research discussed in this report should they wish to apply this research."⁴

² The research studies in this area have been archived on FVAP's website, <https://www.fvap.gov/info/reports-surveys/evdp-report>.

³ https://www.fvap.gov/uploads/FVAP/Reports/FVAP_EVDP_20151229_final.pdf

⁴ FVAP, "Review of FVAP's Work Related to Remote Electronic Voting for the *UOCAVA* Population", 29 December 2015, page 51. See https://www.fvap.gov/uploads/FVAP/Reports/FVAP_EVDP_20151229_final.pdf.

Thus, although FVAP has continued to conduct research into the composition of the *UOCAVA* population, this population's success in receiving and returning their ballot, and specific ways that FVAP can improve its provision of resources to facilitate *UOCAVA* voting successes, it is clear that implementation of specific demonstration projects involving new election technologies is best conducted at the state and local levels. The state and local election jurisdictions can use FVAP research, as well as their own, to best determine what types of new procedural or technological solutions may be best suited for their jurisdiction and *UOCAVA* voting population, and thus the state and local jurisdictions remain the best locations for new research on new election technologies for *UOCAVA* citizens.

Summary of EASE 1 and EASE 2 Grants

The EASE grants were issued in two phases (EASE 1 and EASE 2), beginning in 2011. The first round of EASE grants funded 35 grantees with a total distribution of \$16 million. EASE 1 grants funded a diverse set of projects focusing on innovations for automated ballot duplication, as well as online services for blank ballot delivery, voter registration, ballot requests, and ballot tracking. The second round of EASE grants (EASE 2) funded 11 grantees beginning in 2013, for less than \$5 million. The types of projects funded in EASE 2 were limited to the development of single points of contact (POCs) in state election offices for *UOCAVA* voters and online ballot delivery systems. Also funded under the EASE program were different types of *UOCAVA* voter outreach programs and customer service oriented systems. The EASE grants were intended to investigate the effect of different programs on “the success rate of military and overseas voters,” including electronic ballot delivery systems and single points of contact for *UOCAVA* balloting.⁵

The EASE 1 and EASE 2 grants demonstrate how the EASE grant programs extend and add to FVAP's broader research strategy. First, the research undertaken through the Electronic Voting Demonstration effort focused on developing new approaches for facilitating *UOCAVA* voter successes with electronic voting technologies. It also focused on methodologies for assessing the usability, security, and risks associated with those technologies—the EASE grants have been a clear continuation of this research agenda, undertaken directly by state and county election jurisdictions. Importantly, the EASE grants have allowed widespread experimentation at a relatively low cost: the participating state and county jurisdictions proposed and implemented a wide variety of electronic election administration projects in different contexts, which provided a broad foundation for understanding the potential performance of innovations for *UOCAVA* voting.

Second, the research undertaken through the EASE grants provided FVAP with additional data and information on the many consumers of FVAP resources. For example, FVAP collected a

⁵ Broad Agency Announcement, https://www.fvap.gov/uploads/FVAP/Grants/EASE_BAA.pdf (EASE 1) and https://www.fvap.gov/uploads/FVAP/Grants/EASE%202_BAA.pdf (EASE 2).

wide array of data on how ADM voters and their spouses use FVAP resources and the various barriers to voting success. Many of the EASE projects deployed different ballot transmission, return, and tracking services, which gave FVAP usable data for determining which types of electronic innovations may improve voting success for *UOCAVA* voters, and how the availability of these new modes of ballot transmission might alter how ADM voters and their spouses use FVAP resources. Thus, the EASE grant programs integrate with FVAP survey studies and applied research.

EASE 1 and EASE 2 Grant Programs Evaluation

One of the EASE 1 and EASE 2 programs' primary objectives was the provision of research data and results that would advance the understanding of *UOCAVA* electronic absentee voting systems. Specifically, in the Broad Agency Announcement for the EASE grant program (H98210-BAA-11-0001), FVAP stated the overall research goals:⁶

“Provide research data to advance FVAP’s electronic absentee voting support responsibilities for UOCAVA voters. Electronic absentee voting system research, development, testing, and evaluation are to collect and present data that can show cost-effective methods that:

- *Establish and operate successful, sustainable, and affordable electronic tools that will improve voting systems for voters protected by UOCAVA.*
- *Increase the percentage of ballots successfully returned by UOCAVA voters to be either equal to, or greater than the percentage of ballots returned by the general absentee voting population.*
- *Reduce the failure rates for UOCAVA voters experienced in each of the various stages of the absentee voting process (such as voter registration, absentee ballot request, blank absentee ballot delivery, absentee ballot marking, absentee ballot tabulation, and absentee ballot return verification). The standard for such reductions is to reduce these failure rates to be equivalent to the level of the general electorate for similar stages in the voting process, and for similar demographic populations.*
- *Establish and maintain a pipeline of ideas, techniques and best practices of election officials and their services for UOCAVA voters.”*

As part of the technical package justifying each jurisdiction's EASE grant proposal, the jurisdiction was required to provide a strategy for evaluation of its proposed grant project, including what data points would be collected during the period of performance of their EASE grant. In order to provide an evaluation of the EASE 1 and EASE 2 grant programs, FVAP

⁶ Electronic Absentee Systems for Elections (EASE) Grants for States, Territories and Localities, Broad Agency Announcement H98210-BAA-11-0001, https://www.fvap.gov/uploads/FVAP/Grants/EASE_BAA.pdf.

conducted evaluation research near the conclusion of the grant programs. The evaluation research efforts were both quantitative and qualitative.

This evaluation approach was developed because, despite the data-reporting requirements that were in place for receipt of an EASE grant, there were factors preventing a strong and comprehensive program evaluation. First, the EASE grant programs were not established in an experimental or quasi-experimental framework: the programs did not use randomized, controlled treatment methodologies, or pre/post policy intervention methodologies, which might have allowed a grant-by-grant assessment of whether each grant's innovations led to a measurable change in outcomes. Second, the EASE grant programs did not specify a set of standard programs or innovations to be tested, nor did the grant programs specify a set of hypotheses to be tested, meaning that there were many different grant objectives. Third and relatedly, only a limited number of EASE grant recipients pursued electronic election technologies that could be tested, either because their grant goals did not yield a testable hypothesis or because they did not provide the data necessary to test a hypothesis related to the program goals. Thus, the evaluation effort focused on a mixed-methods approach, combining quantitative evaluation (where possible) with qualitative evaluation.

The quantitative component of the EASE 1 and EASE 2 grants evaluation found that 20 of the grantees conducted pilot tests that allowed the testing of one of four primary program hypotheses:

1. The *UOCAVA* ballot return rate would increase and be equal to or greater than the civilian absentee ballot return rate.
2. The *UOCAVA* ballot rejection rate would decrease and be less than or equal to the civilian absentee ballot rejection rate.
3. The percentage of *UOCAVA* ballots rejected due to lateness would decrease and be less than or equal to the percentage of civilian absentee ballots rejected due to lateness.
4. The percentage of *UOCAVA* ballots returned as undeliverable would decrease and be less than or equal to the percentage of civilian absentee ballots returned as undeliverable.

The evaluation study then focused on using a combination of data provided by jurisdictions, data from the Election Assistance Commission (EAC), and data from other sources, for longitudinal analysis (using data between 2010 and 2014, or 2012 and 2016), or cross-sectional analysis that compared *UOCAVA* to civilian voting population data. In each type of analysis, a matched case-control methodology was used to study EASE-participating jurisdictions against similar non-EASE participating jurisdictions.

The quantitative evaluation analysis found no evidence that EASE grant innovations directly produced increases in *UOCAVA* voter participation or *UOCAVA* voter success in 2014 or 2016 in participating jurisdictions. There was some statistical evidence indicating that *UOCAVA* ballot rejection rates were significantly lower in EASE-participating jurisdictions between 2010 and

2014 than in non-participating jurisdictions. Additionally, there was some statistical evidence indicating that the *UOCAVA* ballot return rates were significantly higher in EASE participating jurisdictions between 2012 and 2016 than in non-participating jurisdictions. These results were limited to these specific sets of elections, and there is no evidence that EASE grant participation improved *UOCAVA* voting success relative to civilian and non-*UOCAVA* voters in the participating jurisdictions.

In order to provide a broader and more nuanced evaluation of the EASE 1 and EASE 2 grant programs, a qualitative study was also undertaken. The qualitative analysis of the EASE grants provided a methodology intended to answer some of the important research questions about the EASE program, and to provide a layer of detail and depth that helped to supplement the quantitative evaluation. Also, the qualitative evaluation examined how the EASE grants were implemented in selected participating jurisdictions, yielding important insights into both the outcomes achieved by these EASE grants, and how those outcomes were accomplished by the participating jurisdictions.

The qualitative evaluation focused on four research questions. First, did the jurisdiction implement the EASE project as proposed, and what challenges arose during project implementation? Second, how did *UOCAVA* voter services in the jurisdiction, under the EASE grant, compare to *UOCAVA* voter services in non-EASE jurisdictions? Third, were the services provided to *UOCAVA* voters under the EASE grant usable for both *UOCAVA* voters and election administrators? Fourth, were larger jurisdictions, in particular those with larger *UOCAVA* voter populations, more likely to successfully implement the innovations proposed in the EASE grant? These four research questions are distinct from those examined in the quantitative evaluation, and thus provided evaluative feedback that could provide important additional information about how the jurisdictions participating in the EASE 1 and 2 grants programs implemented their proposed innovations, and how they achieved their stated grant outcomes.

Three grant projects were selected for detailed study and qualitative analysis: the Okaloosa County Consortium in Florida; South Carolina; and Virginia. A fourth case was selected for inclusion in the qualitative analysis as a type of control case — North Carolina did not participate in the EASE grant programs, and thus is an example of a state implementing *UOCAVA* voting procedures and technologies outside of the EASE grants program.

These case studies are included as the report appendix.

The qualitative analysis provided an important perspective into how these jurisdictions implemented the EASE grants. In particular, a number of contextual factors emerged, as discussed further in the attached case studies, from the qualitative study as key for EASE implementation success:

- Jurisdiction size plays an important role in the success of technology innovations (Okaloosa County Consortium, Florida; Virginia);
- For a state project implementation, coordinating the new *UOCAVA* ballot workflow with local jurisdictions is a complex process (Virginia);
- Working with single election technology vendors can make for more successful technology innovations (North Carolina).

Challenges

Although the EASE evaluation studies yielded important and actionable results, they also pointed to particular challenges. The EASE 1 and EASE 2 programs (especially EASE 1) were not established with specific research questions in mind. Rather, the research goals for the EASE grants were relatively broad, and the grants did not focus on certain types of technologies for *UOCAVA* ballot delivery. The fact that these programs funded a wide array of different administrative and technological activities by state and local election officials made it difficult to formulate and test specific quantitative hypotheses, and to draw general conclusions about which technologies or administrative changes may best improve *UOCAVA* voting success.

Second, the EASE 1 and EASE 2 programs were not established with strong quantitative evaluation in mind and therefore, the recording of evaluation focused data by states was not explicitly required. This resulted in the programs lacking control groups to foster more data-driven analysis of outcomes for *UOCAVA* voters and election officials.

Third, although participation in the EASE 1 and EASE 2 grants programs did require that election jurisdictions collect, retain, and share data with FVAP, the evaluation analysis found that these data were of uneven quality for quantitative evaluation.

Fourth, while there is available baseline data on *UOCAVA* voters, those data are either from surveys or available in highly aggregated form, rendering them difficult to use for evaluation of specific technology projects in specific states or counties. In the end, although the many different EASE 1 and EASE 2 grants yielded interesting information (in particular for participating jurisdictions), these challenges made it difficult for FVAP to draw general conclusions about specific administrative or technological innovations that might improve *UOCAVA* voting success.

Lessons Learned from EASE 1 and EASE 2

The general conclusion that emerges from the evaluation of the EASE 1 and EASE 2 grant programs is that there remain important opportunities for further research, for collecting important new data about *UOCAVA* voting successes, and for testing additional innovations that seek to improve *UOCAVA* ballot delivery services. The research that FVAP conducted since 2010, as well as the EASE grants research, illustrates that the central problem facing *UOCAVA* voters remains receiving and returning their ballot in a timely and user-friendly manner. Technologies for securely transmitting and returning *UOCAVA* balloting materials continue to evolve and change, while state and local election officials continue to develop new administrative means to better deliver and receive ballots from remote voters. Thus, there is an important opportunity for FVAP to build off of the EASE 1 and EASE 2 grant programs, with a focused research strategy on improving *UOCAVA* ballot delivery services.

In the EASE 1 and EASE 2 grant programs, state and local election jurisdictions examined a wide array of different approaches for *UOCAVA* ballot delivery. Outside of the EASE 1 and EASE 2 programs, other methods for *UOCAVA* ballot delivery are being developed and used, often alongside existing ballot delivery systems. For example, jurisdictions are using electronic technologies like email, mobile applications, and web portals for *UOCAVA* ballot delivery, along with other methods like fax and mail transmission and receipt. At present, there is no cumulated knowledge base that informs election jurisdictions about the cost, usability, accuracy, interoperability, and security of these many different *UOCAVA* ballot transmission options.

That is the primary opportunity that emerges from the EASE 1 and EASE 2 grant programs—the development of a focused research agenda that will provide quantifiable and data-driven answers to election jurisdictions as they continue to work to improve ballot delivery for their *UOCAVA* citizens. Which of these ballot delivery services are most able to generate a successful voting transaction for a *UOCAVA* citizen? What are the relative risks associated with each of these different services? Which are more usable for *UOCAVA* citizens, and which are most easily deployed by state and local election jurisdictions? What are the relative costs of acquisition, deployment, and maintenance of each ballot delivery solution? And finally, how well do these different ballot delivery solutions integrate with the existing procedures and systems in different election administration environments and contexts?

Other opportunities emerge from the EASE 1 and EASE 2 grant programs. A challenge in EASE 1 and EASE 2 programs was identification of clear and testable research hypotheses; in most instances, the jurisdictions identified increases in *UOCAVA* voter participation as a key outcome in their jurisdiction. However, for many reasons, the EASE evaluation studies noted difficulties associated with *UOCAVA* participation as an outcome. First, data on *UOCAVA* voter participation is difficult to collect, and there are many different factors that might drive *UOCAVA* participation. Midterm elections differ from general elections, and it can be very difficult to control for the motivations behind voter turnout when evaluating a study.

Second, *UOCAVA* participation is not the right outcome variable on which to focus, in particular if jurisdictions are implementing ballot delivery technologies or procedures. Although making it easier or more secure for a *UOCAVA* voter to receive and return their ballot might lead to greater *UOCAVA* voter participation, the more appropriate outcome to study is whether these innovations make it more likely that *UOCAVA* ballots are successfully received by the voter, returned, and successfully included in the jurisdiction's tabulation. That is, instead of focusing on *UOCAVA* voter participation as the measure of success for evaluation, jurisdictions should be tracking and monitoring how technology and procedural innovations improve an individual's *UOCAVA* voting success by focusing on collecting data about the voter's transactions throughout the absentee voting process.

Collecting voter transactions data—literally the data on when the *UOCAVA* voter interacts with the election office, when ballot materials are transmitted to the *UOCAVA* voter, whether the materials are turned in by the voter, how they are received, and whether they are included in tabulation of ballots for the election—will have broader significance for FVAP and election officials nationwide. These data, when collected in a standard and comparable way across states, will facilitate additional research and insights into how specific innovations improve *UOCAVA* voting success. This will be true for innovations that seek to make the process easier for *UOCAVA* citizens, and also for the election officials who they interact with during the process of receiving and returning their ballots.

Third, and relatedly, this focus on voter transactional data will resolve one of the primary issues identified in the EASE 1 and EASE 2 evaluation studies, the difficulty of collecting consistent, accurate, and detailed voting transaction outcome information. Rather than being in a situation in which each jurisdiction is collecting disparate data on *UOCAVA* voters, transitioning toward a data standard for the reporting of consistent *UOCAVA* voting transactions data is another important opportunity arising from the EASE 1 and EASE 2 grants studies. This will be improved by focusing on individual-level transactions; for example, for each *UOCAVA* voter who requested a ballot, did the voter return it, was it included in the final jurisdiction tabulation, and were there any issues regarding that ballot? This will also be improved by the development of standardized reporting templates or applications that will work with existing election data management systems to produce evaluation data that will yield valuable intelligence about how effective the third round of grants may be. This approach would provide uniform data across jurisdictions that could yield an accurate evaluation of future *UOCAVA* election technology and administrative innovations.

During the time of the EASE 1 and EASE 2 grants, FVAP entered into a cooperative agreement with the Council of State Governments and established a data standard to enable this exact type of comparison. This data source is called the Election Administration and Voting Survey (EAVS) Section B Data Standard with the abbreviation "ESB Data Standard" as it derives its name from its intent for replacing a portion of the post-election survey administered by the

United States Election Assistance Commission. The ESB Data Standard is no longer a notional concept as FVAP already published research resulting from this effort and data provided from various election jurisdictions. Although this standard remains in its infancy, its potential for supporting quantitative analyses in future grant initiatives as well its ability to provide better control groups in its analysis cannot be dismissed. The ESB Data Standard allows FVAP to analyze ballot request, ballot transmission and ballot return. Under FVAP's guidance, states now have the option of making transactional-level data on UOCAVA ballots available through the ESB Data Standard.⁷

Finally, much of FVAP's research since 2010 has focused on the mission of facilitating the voting success of the broad population of *UOCAVA* citizens, in particular civilian *UOCAVA* citizens. Although providing voting information and balloting materials to active duty military and their dependents is an important component of FVAP research and programming, it became clear that overseas citizens have unique issues with respect to obtaining and returning their ballots. This presents an additional opportunity for FVAP to identify and isolate the most effective ballot delivery services that improve voting successes for both military and overseas citizen voters.

Section 3: Conclusions and Future Research

The EASE 1 and EASE 2 grant efforts produced a significant set of findings that guide any future consideration of similar research. First, recent FVAP research and the EASE evaluation studies have highlighted the need for improving and enhancing the data collected for studying *UOCAVA* voting, and for the evaluation of specific administrative and technology grant programs like EASE 1 and EASE 2. Additionally, past FVAP research tended to focus on election participation and has not systematically studied what drives successful ballot request, receipt, and return. Second, the EASE 1 and EASE 2 grant programs provided funding for state and local election jurisdictions to examine a wide variety of procedural and technological initiatives, but did not focus specifically on the key issue that has been identified in FVAP research: reducing the time it takes for *UOCAVA* citizens to receive and return their ballots and increasing the usability of electronic blank ballot delivery. Under the provisions of UOCAVA, states are required to offer electronic delivery of blank ballots; however, their compliance with Federal law points to an over-reliance on email attachments which may not provide the most usable experience. Specifically, evaluating the EASE 1 and EASE 2 pilot programs revealed that improving the usability of *UOCAVA* ballot delivery systems was an important theme for both election officials and UOCAVA voters. There are many innovations that could improve usability, all of which could also reduce the time and complexity of ballot request and delivery for election officials and *UOCAVA* voters. These innovations could include studies on

⁷ FVAP, "Data Standardization Helps Assess Congressional Reforms for Military and Overseas Citizens," August 2018, page 2. See https://www.fvap.gov/uploads/FVAP/Reports/609-ResearchNote11_DataStd_FINAL.pdf

improvements in *UOCAVA* ballot design, ballot solution technologies (e.g., mobile applications or browser-based applications), innovations for ballot duplication, and incorporation of electronic signatures from the DoD Common Access Card into *UOCAVA* ballot delivery systems, as seen in Nevada and Montana.

During the time of EASE 1 and EASE 2, the U.S. Department of Homeland Security classified election systems as critical infrastructure. In a period of greater awareness on the need for heightened cybersecurity, the most vulnerable systems remain those exposed to the internet. This new feature in the landscape places all systems tailored for *UOCAVA*-eligible into a new environment. The impact of this designation on election systems tailored for the military, their eligible family members and overseas citizens may warrant future research depending on the potential impacts of increased cybersecurity efforts.

A major limitation of the EASE 1 and EASE 2 programs was the significant difficulties evaluating the effectiveness of the grant programs. The difficulties arose because the grant programs were not structured with quantitative evaluation as an important priority, they did not require the consistent reporting of detailed evaluative data, and the grants had greatly varying objectives. Future research efforts require a strong quantitative evaluation methodology.