FVAP RESEARCH NOTE

Data Standardization and the 2024 General Election

Introduction

Following the *Uniformed and Overseas Citizens Absentee Voting Act* (*UOCAVA*), the mission of the Federal Voting Assistance Program (FVAP) is to help ensure that active duty military (ADM), their families, and U.S. citizens living abroad are aware of their right to vote and have the tools and resources needed to do so successfully. With this mission in mind, FVAP continues to collect information to better understand the *UOCAVA* population's needs and help them successfully complete the voting process.

Since 2013, FVAP has been working with The Council of State Governments (CSG) on the Overseas Voting Initiative (OVI). In 2015, OVI worked with state and local election officials to develop an election data standard that captures transactional-level data about *UOCAVA* voters in the Election Administration and Voting Survey (EAVS) Section B (ESB) Data Standard. The collection of transactional data is an innovative way to obtain data about the voting process and measure the impact of congressional reforms like *the Military and Overseas Voter Empowerment Act* of 2009 (*MOVE Act*), which is now part of *UOCAVA*. *UOCAVA* requires states to have at least one electronic option available for *UOCAVA* voters to receive their ballots, and mandates that ballots are to be sent no later than 45 days before the election, provided the voter requested their ballot before that date.

Data obtained through the ESB Data Standard allows one to understand the steps each voter takes throughout a voting process, and to evaluate at which point during that process they may have encountered any obstacles that prevented them from voting. Traditional aggregate data sets obtained through surveys have serious limitations on how much information they can provide on a voter's journey. Given that states and localities across the country collect and store their data using different systems and naming conventions, it is difficult for the data to be compared or combined. The standardized nature of this data set allows it to overcome that limitation.

The 2016 General Election was the first election in which a group of states and counties provided ESB data.[1] Since then, ESB data have been collected after every federal general election from participating states and jurisdictions, and FVAP has published a research note discussing the main findings after each of the general elections.[2] Over the years, four states and three county jurisdictions have provided ESB data uninterrupted for every general election. Additionally, three states and four jurisdictions have provided data for four of the five iterations. The continuity of this

[1] For more information on the 2016 ESB Data Standard findings, see Federal Voting Assistance Program (2018). "Data Standardization and the Impact of Ballot Transmission timing and Mode on *UOCAVA* Voting." Available at https://www.fvap.gov/uploads/FVAP/Reports/609-ResearchNote11_DataStd_FINAL.pdf

[2] Federal Voting Assistance Program (2019). "Data Standardization and the *UOCAVA* Voting Pipeline." Available at: https://www.fvap.gov/uploads/FVAP/Reports/2018-ESB-Research-Note.pdf; and Federal Voting Assistance Program (2021). "Data Standardization and the 2020 General Election." Available at: https://www.fvap.gov/uploads/FVAP/Reports/2020-ESB-Research-Note_Final.pdf

data collection project from the same reporting states and jurisdictions allows comparisons across these five election cycles. Over half of the participating states and jurisdictions – 17 of the 33 – participated in most of these (i.e., at least three of the past five) elections. And although some participants have stopped providing their ESB data at some point in the last eight years, there are always new states and jurisdictions joining in the ESB data collection.

Overall, 20 states and 13 jurisdictions have provided ESB data at some point in the last five general elections. Table 1 shows the states and jurisdictions that have provided ESB data each year.

Table 1. ESB Reporting States and Jurisdictions, 2016-2024:[3] Four states and three jurisdictions have provided ESB data uninterrupted for every General Election since 2016.

State/Jurisdiction	2016	2018	2020	2022	2024
Alabama		✓	✓		
Boone County (MO)					✓
Brevard County (FL)					✓
Bexar County (TX)	✓	✓+	✓+	✓+	✓+
Chicago City (IL)			✓		
Colorado	✓	✓	✓	✓	✓
Cook County (IL)	✓				
Delaware				✓	
Escambia County (FL)		✓	✓	✓	
Georgia				✓	✓
Harris County (TX)	✓	✓+	✓+	✓+	✓+
Ingham County (MI)		✓	✓	✓	✓
Kentucky			✓		✓
Los Angeles County (CA)	✓	✓	✓	✓	✓
Maryland				✓	
Massachusetts			✓*	✓	✓
Nebraska				✓	✓
Nevada County (CA)					✓*
New Jersey	✓	✓	✓	✓	
New Mexico					✓
New York	✓	✓	✓	✓	✓
North Carolina	✓	✓			
Okaloosa County (FL)	✓		✓	✓	✓
Orange County (CA)	✓	✓	✓	✓	
Oregon	✓				
Pennsylvania			✓*		
Rhode Island			✓	✓	✓
Richmond County (GA)		✓	✓	✓+	✓+
South Carolina	✓	✓	✓	✓	
Texas		✓	✓	✓	✓
Vermont			✓	✓	
Washington	✓	✓	✓	✓	✓
Wisconsin	✓	✓	✓	✓	✓

** The data provided by this state or jurisdiction have high levels of missingness for the year indicated and were not used in its respective ESB Research Note calculations.*

+ The data provided by this county, reported individually in at least one prior year, is now represented within its reporting state's data (i.e., Texas, Georgia).

[3] In Texas, only Bexar County and Harris County reported ESB data in 2016. In 2018, Texas started to report ESB data on the rest of their jurisdictions as well. Richmond County (GA) reported ESB data in 2018 and 2020, and for 2022 and 2024, it reported data along with the rest of the state of Georgia.

Data Standardization and the 2024 General Election

The 2024 ESB Data Standard includes a total of 11 reporting states, as well as five county-level jurisdictions reporting data not already represented by a reporting state. All 16 of these data sets were considered sufficiently complete for inclusion into the 2024 ESB Data Standard. These reporting states and jurisdictions logged 489,291 ballot requests in ESB, which accounts for 35.9 percent of all *UOCAVA* voters registered and eligible to vote nationwide for the 2024 General Election.[4] The ESB coverage of the *UOCAVA* voters in 2024 – calculated as 35.9 percent using the reported registered *UOCAVA* voters in EAVS as a baseline – is lower than that observed in 2022 (41.5 percent) and 2020 (41.0 percent), and higher than in 2018 (33.2 percent) and 2016 (28.3 percent).

One of the goals of the ESB Data Standard is to reduce the burden for states and jurisdictions when completing EAVS Section B, by providing a standardized data set that covers all the items in EAVS without needing to calculate and input data manually for each of the items for every single jurisdiction in the state. With that goal in mind, this research note compares how EAVS results obtained through ESB data align with the actual EAVS data reported by participating states and jurisdictions, then produce findings from this data.

Additionally, this research note takes advantage of the transactional nature of the data to provide a reliable snapshot of how and when *UOCAVA* voters complete each step in the voting process. Having dates associated with these steps is particularly useful when aiming to understand the impact of *UOCAVA* voter protections, such as the 45-day ballot transmission deadline and the availability of electronic ballot transmission methods, on other milestones such as voting success.

This research note follows the *UOCAVA* voting pipeline framework introduced in the 2018 ESB research note.[5] The framework uses the pipeline as an analogy for the voting process: The first step in the *UOCAVA* voting process – the voter's registration and ballot request – serves as the pipeline's start, and the conclusion of the voting process – having a ballot counted – serves as its end, with potential dropout points along the way.

Similarly, the analyses are organized using three pipeline "steps" following the *UOCAVA* voter's journey toward casting a ballot. First, we examine the 2024 *UOCAVA* voting pipeline and describe the three basic steps in the *UOCAVA* voting process: (1) ballot request, (2) ballot transmission, and (3) ballot return. After identifying where in the pipeline *UOCAVA* voters face the greatest obstacles, we take a closer look at each step, assessing how factors like timing, mode, and voter type relate to success rates in completing the process with a vote successfully counted. Additionally, we compare results with those of previous elections, to identify any changes in how and when *UOCAVA* voters cast their ballots. The results of these analyses are used to continue informing FVAP programmatic and outreach efforts to better serve *UOCAVA* voters and help them

[4] The number of UOCAVA voters registered and eligible to vote is a measure derived by proxy using the total number of ballots requested as obtained from item B1a in the Election Administration and Voting Survey (EAVS). See Election Administration and Voting Survey (EAVS) 2024 Comprehensive Report.
[5] Federal Voting Assistance Program (2020). "Data Standardization and the *UOCAVA* Voting Pipeline." Available at: https://www.fvap.gov/uploads/FVAP/Reports/2018-ESB-Research-Note.pdf

successfully complete the voting process. Some of the analyses in this research note were also used to inform a section of FVAP's 2024 Report to Congress.[6]

The Three Main Steps of the *UOCAVA* Voting Process:

Ballot Request: This first step refers to when a *UOCAVA* voter requests a ballot for an upcoming election from their corresponding election offices using a Federal Post Card Application (FPCA), state application, or other accepted form. This step is sometimes (but not necessarily) conducted at the same time as the *UOCAVA* voter registration.

Ballot Transmission: Once an election office receives a ballot request and deems it valid, the election office transmits a ballot to the *UOCAVA* voter ahead of the election.

Ballot Return: The *UOCAVA* voter sends a filled ballot with their voted ballot and corresponding information back to the election office, and the ballot is received by the election office. The final step in the voting process is this returned ballot being accepted (counted) by the election office.

This research note is organized into the following sections:

- Key Research Questions
- Methodology
- ESB and EAVS
- The 2024 *UOCAVA* Voting Pipeline
- The Voting Journey: Ballot Request, Transmission, and Return
- Conclusions

The analyses in this research note confirm the following held true for the 2024 General Election:

- Ballot return rates calculated using ESB data were within five percentage points of the same EAVS items for half of the 16 ESB participants, and within 13 percentage points for three quarters of the participants, supporting ESB data's net reliability.
- Ballots requested via an FPCA during the election year had higher return rates than those requested via state application, supporting FVAP's position encouraging all *UOCAVA* voters to complete a new FPCA at least once a year and whenever changing an address.

[6] The results reported in this research note are expected to be slightly different from those reported in the 2024 Report to Congress. The data used in the 2024 Report to Congress were current as of May 2025 and lacked additional reporting jurisdictions' data available as of August 2025 and covered in this research note. Those newly added jurisdictions are: Brevard County (FL), n=4,373; Ingham County (MI), n=986; Massachusetts, n=23,546; New Mexico, n=6,807; and Wisconsin, n=17,863. Among these, Ingham County and Wisconsin are both jurisdictions allowing ballot return by mail only. Because Wisconsin's ESB data lacked ballot return information (i.e., date and method) and were excluded from such calculations, this affects changes in related calculations and relationships.

- Ballot return rates were higher for ballots requested during election year, and ballots requested before the 45-day deadline within election year had lower rejection rates than those requested closer to Election Day.

Key Research Questions

This research note addresses the following research questions:

- How do ESB-produced metrics align with EAVS?
- How do congressional requirements such as the 45-day deadline for ballot transmission and the requirement to allow an electronic mode of ballot transmission impact the voting process?
- What are the main differences between Uniformed Service members and overseas citizens in their approach to the voting process?
- How did the 2024 General Election compare with previous general elections in terms of timing or completion of each step in the voting process?

Methodology

Data for this research note were collected from 11 states and five additional county-level jurisdictions that used the ESB Data Standard template to report transactional data for the 2024 General Election.[7] In this research note, transactional data refers to individual pieces of information showing when and how any transaction between a voter and the election office occurred across the *UOCAVA* voting process. In addition to information about the voting transactions, the ESB Data Standard template collects information on voter type (i.e., overseas citizen or Uniformed Service members),[8] country of residence, and voting jurisdiction.[9]

ESB transactional data remains the only data standard that can reliably follow a voter's journey through all phases of the voter pipeline. This enables better understanding of *UOCAVA* voting behaviors, policies, and patterns across all pipeline phases, not merely in the aggregate for each measure, but also and uniquely, as a progression at the individual-voter-experience level.

ESB records are standardized across jurisdictions and cleaned at every data processing stage, and guidance is shared with all jurisdictions in advance to assist with uniformity of data entry. Nevertheless, due to the nature of general elections, and differences in jurisdictional policies,

[7] Three of the jurisdictions represented in Table 1 – Bexar County (TX), Harris County (TX), and Richmond County (GA) – are contained within their reporting states and as such do not appear separately as rows within the 2024 data tables. Nevada County (CA), a 2024 participant, was excluded from calculations due to excessive data missingness.
[8] Throughout this research note, the term "Uniformed Service members" refers to active-duty military, their spouses, and eligible dependents covered by *UOCAVA*.
[9] Each unique voter, and each unique transaction, are assigned random alphanumerical reference numbers. These are used to analyze records and identify trends without collecting any personal information.

practices, and technologies, some variability inevitably exists and is reflected in the ESB transactional data across records and jurisdictions. These differences have been accounted for and aligned to the extent possible in this analysis and improved iteratively with each round.

For example, in some jurisdictions, the entirety of the voter journey is captured in a single record for a particular voter. In others, this "journey" is spread across multiple transaction records (data rows) and pipeline phases, all connected by a single unique identification number (also referred to here as unique ID, or the "UniqueID" variable) for that voter. In the calculations that follow, therefore, each cluster of transactions associated with a single unique ID is considered contextually and collectively, counted only as many times as fits a respective measure and situation.

For example, if four cases of the same unique ID appear as ballot requests, with two ballots ultimately rejected and two accepted, via one FPCA and one state application, then all four records would be kept, but only one registered voter would be counted – and one FPCA counted, and one state application counted, for that voter. Then, for each ballot type requested, transmitted, received, and/or rejected, that voter would be counted only once per variable or category (e.g., one state application request received, and one FPCA request received). This ensures avoiding either over or underrepresenting records in any pipeline phase.

In such cases, rather than remove entire records from the data set altogether or attempt to combine them once up front across the board, individual records for a single unique ID are all kept, considered and combined selectively, for calculating specific variables. This is done to most effectively and accurately track each voting "journey" for this election cycle as a single comprehensive event, including as much data as is available for that voter across records and phases. For each calculation, the impact of such record inclusion versus exclusion is small, often statistically insignificant, but in the aggregate, the impact of removing all records sharing duplicate unique IDs is greater and can inadvertently omit much vital valid data.

The only exception to keeping all records is for those fully duplicated observations: a small subset of records sharing a unique ID but in which all other data fields for that record – i.e., the entirety of one or more transactions, or data rows – are also completely identical for that voter across all pipeline phases. In other words, these records show the exact same information in all ESB variables across all phases and only differ in the entry's transaction ID. Such records, which account for fewer than one one-hundredth of a percent of all observations, are considered true duplicates and are typically anomalies in jurisdictional records. In such cases, only one record from each duplicated set was included in the final analyses, to avoid overrepresentation of these "true duplicate" cases.

After all adjustments, the final sample used in this report added up to 489,291 observations (35.9

percent of the *UOCAVA* population).[10]

To compare results between ESB and EAVS, the items in Section B of the EAVS were reproduced using ESB variables. Multiple ESB variables were combined to create each of the items. For example, to obtain the total number of ballots transmitted to Uniformed Service members in the 2024 General Election,[11] variables covering ballot transmission date and method, voter type, and more were used to find the total number of observations that belonged to that category – see "ESB and EAVS" below for details. To evaluate how ESB-produced metrics aligned with EAVS responses, the ESB result was divided by the EAVS result to clearly represent which metric was higher and how large the difference between the two was.

The analyses in this research note use a descriptive approach, focusing on the potential impact of factors like ballot request timing and ballot transmission type on the success of the *UOCAVA* voting process. Because the ESB Data Standard is a census of all *UOCAVA* transactions in reporting states and jurisdictions, analyses are not weighted; they are only representative of these states and localities with valid data.[12,13] Some reporting states and jurisdictions could not provide data for all the fields in ESB. When relevant data fields were missing, their observations were excluded from the analysis, and their exclusion is reported in a footnote. For example, if a state did not provide information on voter type, then observations from that state were excluded in analyses of differences between Uniformed Service members and overseas citizens, but they were included in other analyses where voter type was not a variable of interest.[14]

In addition to case-by-case exclusions, some analyses use only a specific set of states and jurisdictions.[15] Particularly when comparing data from different elections, the analysis may focus only on those states and jurisdictions with reported data for those elections, to avoid the potential confounding effect of including different states and jurisdictions across multi-year comparisons.

ESB and EAVS

The overarching goal of the ESB data is to reduce the burden of responding to Section B of the EAVS for states and localities. Rather than pulling and manually entering the data on the EAVS template for each jurisdiction in the state, participants can reproduce a query on the state or

[10] EAVS item B1a, the number of *UOCAVA* ballots requested, represents the number of *UOCAVA* voters registered and eligible to vote in a given election year. This figure (n=1,364,124) is used here as a proxy for the total 2024 *UOCAVA* population.
[11] EAVS item B5b
[12] See Appendix A for a complete tabulation of the 2024 ESB data by variable.
[13] The data sets used in this study were those exported by localities as of August 1, 2025. Because this combined data set includes those individuals who, at some point, submitted an absentee ballot request, indicating their status as either Uniformed Service members or overseas citizen, the unit of analysis is a *UOCAVA* ballot requester.
[14] See Appendix B for an analysis of missingness, detailed by variable.
[15] When additional case-by-case exclusions are present in a particular analysis, they are flagged, and the rationale behind the exclusion is detailed.

jurisdiction database and create a data set containing all the necessary variables to accurately fill out Section B of the EAVS and provide additional insight on the journey of *UOCAVA* voters.

This section of the research note explores to what extent the current ESB data participating states and jurisdictions provided align with the data they reported for the 2024 EAVS Section B.

In 2024, Section B of the EAVS consists of 100 items covering the following topics about *UOCAVA* voters:

- B1: Registered *UOCAVA* voters
- B2 to B4: FPCAs received and rejected
- B5 to B10: Transmitted ballots, in total and by modes of ballot transmission
- B11 to B16: Ballots returned, in total and by modes of ballot return
- B17: Transmitted ballots returned undeliverable, in total and by modes of transmission
- B18 to B23: Ballots counted, both in total and by modes of ballot return
- B24 to B28: Ballots rejected and reasons for rejection
- B29 to B33: Federal Write-In Absentee Ballots (FWAB) received, counted, and rejected

Bracketing B4a ("Total FPCAs rejected because they were received late") and B29 to B33 (i.e., all FWAB-related items), the remaining 84 EAVS Section B items can all be obtained by aggregating ESB data.

For example, to calculate the number of ballots transmitted by postal mail to Uniformed Service members (item B6b in the 2024 EAVS), one can use the ESB variables "RequestStatusType" (signifying a voter's ballot request was accepted); "BallotTransmissionDate" or "BallotTransmissionMethod" (signifying a blank ballot was transmitted to the voter by the election); and "VoterType" (signifying the voter is a member of the Uniformed Service members). Combined, these fields allow one to identify the number of observations that meet all criteria – an absentee ballot was transmitted by postal mail to the Uniformed Service members voter before the election – and obtain the aggregate number as reported in EAVS. In the event these steps occurred for the same voter ("UniqueID") across multiple transactions or data rows within a jurisdiction's records, each UniqueID is looked at across the entire array of those transactions, and each voter is counted only once per applicable variable.

Additionally, this calculation does not exclude observations where a ballot was returned, even if the BallotTransmissionDate or BallotTransmissionMethod fields were blank – provided the voter ultimately returned a completed ballot (i.e., Data was present in the "BallotReceivedDate" or "BallotReceivedMethod" field of that observation, despite being missing from the transmission-related fields). Keeping these cases, roughly 2,000 total, while typically insignificant on individual-calculation and jurisdiction-specific levels, ensured all successful voters' records were included for each pipeline phase, regardless of jurisdictional differences in transactional data capture.

This ESB-to-EAVS "crosswalk" process was done using R programming language code after receiving, checking, and cleaning each state or jurisdiction's standardized ESB data. Logic was

verified using Microsoft Excel's Power Query, which was used to replicate the R calculations and confirm the veracity of all results. See Appendix C for the full ESB-to-EAVS crosswalk comparison.

One noteworthy consideration when using aggregated ESB data to calculate EAVS tables is that, in EAVS, most items allow states and jurisdictions to respond with "Does not apply" or "Data not available" and to provide comments where additional context or information is necessary. These two options are used when the EAVS information requested does not apply to the state (e.g., A state that does not allow for email ballot return will return "Does not apply" for EAVS items B13a to B13c), or when the state or jurisdiction does not collect that information. (e.g., Some states/jurisdictions or their systems may not track voter type so will fill those EAVS items with "Data not available.")

Because of the transactional nature of the ESB data, using ESB variables to calculate aggregate results will yield a result of zero or missing in the cases discussed above, although the actual reason for not having data in those items may be more nuanced. In the ESB, it is also difficult to interpret when an EAVS item would need to be filled as zero or as missing. For example, if a jurisdiction does not have any observations with a ballot return method categorized as "fax," then whether that jurisdiction allows such ballot return method or not would define whether the result should be a true zero (i.e., The method is allowed, but no ballots were returned by fax), or as missing (i.e., The method is not allowed. This could also be categorized as "Does not apply").

To calculate the level of alignment between ESB-produced metrics and EAVS responses, we used the following formula:

$$Level\ of\ Alignment = \frac{ESB\ produced\ metric}{EAVS\ result} \times 100$$

A 100 percent alignment level means both approaches yield the same result; values below 100 percent mean the ESB-produced metric underestimates the EAVS result; and values above 100 percent mean the ESB-produced metric overestimates the EAVS result. A result of 50 percent means the ESB-produced metric is half of what the EAVS-reported result is for a given item, and similarly, a result of 200 percent means the ESB-produced metric is twice what the EAVS-reported result is for a given item.

If the ESB-produced metric and the EAVS result are both zeroes or missing, then the level of alignment is logged as 100 percent, indicating perfect alignment. Conversely, when an item was not available in either EAVS or ESB, due to missing or inapplicable information, the level of alignment is logged as zero percent, reflecting the absence of alignment between the two sources. (e.g., If "Voter Type" is missing from ESB, then most EAVS "b" and "c" subitems referring to Uniformed Service members or overseas citizens, respectively, cannot be calculated.)

After comparing how EAVS responses generated using ESB data align with the actual EAVS responses participating states and jurisdictions provided for the 2024 EAVS, some of the most aligned variables were EAVS Section B "core" items (i.e., the items reporting the number of ballots transmitted, returned, and counted). These all see high levels of alignment across over three

quarters of the jurisdictions. For example, total ballots transmitted (EAVS item B5a) falls between 90 and 110 percent alignment across 10 jurisdictions, and between 80 and 120 percent alignment across 13 jurisdictions; and total ballots received (EAVS item B11a) falls between 90 and 110 percent alignment across 11 jurisdictions, and between 80 and 120 percent alignment across 14 jurisdictions. Similarly, total ballots counted (EAVS item B18a) falls between 90 and 110 percent alignment across eight jurisdictions, picking up another five when expanding the range to 80 to 120 percent alignment. Strong core item alignment across most participating jurisdictions reinforces the viability of the ESB transactional data as a means of augmenting and/or approximating EAVS Section B data.

One idiosyncrasy of this ESB-EAVS alignment exercise is that the most highly aligned variables across participating jurisdictions are often a result of mutually missing data – i.e., data not available from either data source. For example, *UOCAVA* ballots returned by fax as undeliverable[16] saw 100 percent alignment across all 16 participating states and jurisdictions, and ballots returned undeliverable by all modes other than postal mail, email, fax, or online portal[17] saw 100 percent alignment across 15 of the 16 participating states and jurisdictions. While technically aligned, these items serve mainly as potential prompts for further data collection and relevance discussions.

In contrast with the "core" items, some of the items reporting information on FWABs and on rejected ballots had organically lower levels of ESB-EAVS alignment. For example, for total *UOCAVA* ballots rejected,[18] only seven of the 16 participating states and jurisdictions saw a level of alignment falling between 80 and 120 percent (although five of these fell between 90 and 110 percent alignment). And on the main FWAB items – both total FWABs returned[19] and total FWABs counted,[20] five and six jurisdictions, respectively, fell within 20 percent alignment. (Again, all but one of these cases within each item fell within one percent alignment.) These items shared a mix of both low organic alignment between EAVS and ESB, and, where aligned, high degrees of mutual missingness.

It is worth noting that, when data is not reported missing, the FWABs and ballot-rejected categories are more susceptible to larger discrepancies, because the numbers reported in these fields are usually small, and thus a minimal deviation may turn into a large discrepancy. If a jurisdiction reports four rejected ballots in EAVS and three in ESB, for instance, the level of alignment (75 percent) would fall outside the 20 percent window, even though the absolute difference between the two numbers is trivial.

To better assess how each participating state and jurisdiction's ESB data aligns with the EAVS, we calculated how many of the 100 EAVS Section B items in 2024 had a level of alignment falling within one percentage point of perfect alignment when calculated using the ESB data (i.e., with a

[16] EAVS item B17d
[17] EAVS item B17f
[18] EAVS item B24a
[19] EAVS item B29a
[20] EAVS item B30a

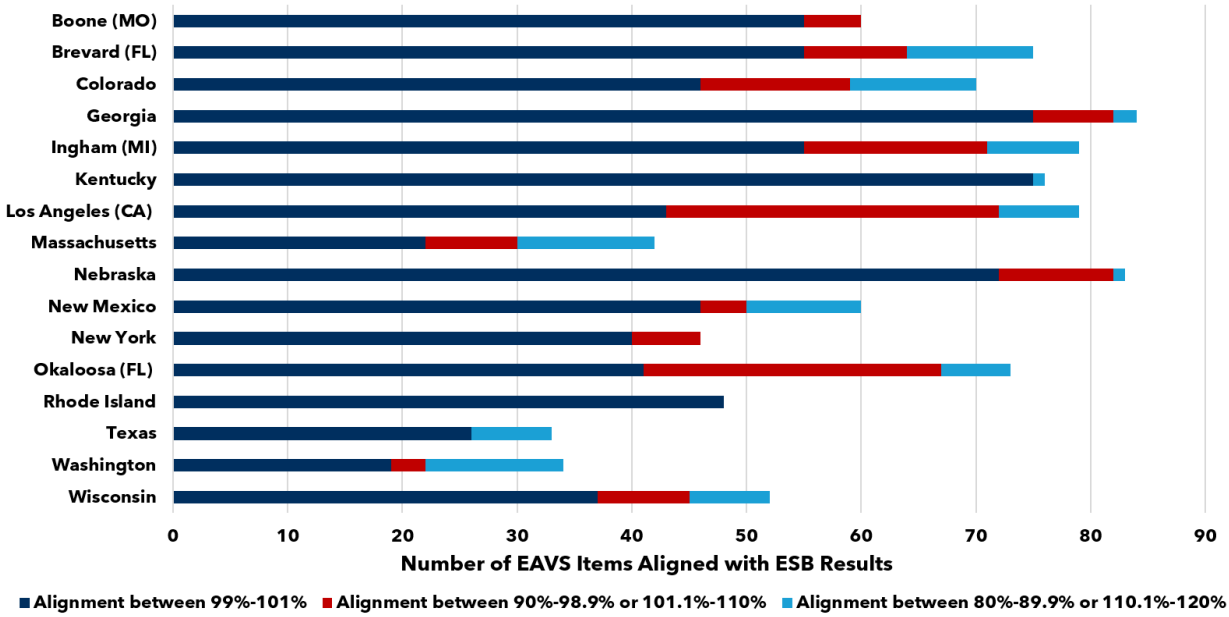
level of alignment between 99 and 101 percent); how many fell between 1.1 and 10 percentage points of perfect alignment (i.e., with a level of alignment between 90 and 98.9 percent or between 101.1 and 110 percent); and how many fell between 10.1 and 20 percentage points of perfect alignment (i.e., with a level of alignment between 80 and 89.9 percent or between 110.1 and 120 percent).

Figure 1 shows the results of these calculations. Here, we can see that Georgia, Kentucky, and Nebraska saw 72 out of 100 variables align within one percentage point (i.e., between 99 and 101 percent). Half of the participating states and jurisdictions had 70 or more of the 100 ESB-calculated EAVS items reach within 20 percentage points of alignment (i.e., between 80 to 120 percent aligned): Colorado, Georgia, Kentucky, and Nebraska; and Brevard (FL), Ingham (MI), Los Angeles (CA), and Okaloosa (FL) counties. And over 60 percent of participants (10 out of 16) saw at least half of the 100 variables align within +/-10 percent; this participant count only increased by one when expanding the match range to +/- 20 percent.

Notably, six participating jurisdictions – Boone, Brevard, and Ingham Counties, as well as Georgia, Kentucky, and Nebraska as cited above – had over half of their EAVS items calculated using ESB data fall within one percentage point of what they reported in the 2024 EAVS. Six additional states and jurisdictions – Colorado, New Mexico, New York, Los Angeles (CA), Rhode Island, and Okaloosa (FL) – saw between 40 and 50 percent of all ESB-calculated EAVS variables fall within one percentage point of their reported 2024 EAVS numbers.

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Figure 1. Number of 2024 EAVS Items Aligned with 2024 ESB Results: For most of 2024's participating states and jurisdictions, using ESB to calculate the 100 EAVS items yielded results within 20 percentage points of alignment. The bulk of this alignment fell within just one point.



Despite the number of participating jurisdictions aligned within one percentage point on most items, all but one saw even more variables align when the match threshold increased (i.e., when the range considered a match broadened from within one, to within 10 or 20, percentage points). Several states and jurisdictions saw particularly notable gains, including Colorado, which went from 46 to 59 to 70 items matched, as the threshold increased from within one, to within 10, to within 20 percent, respectively; and Massachusetts, which went from 22 to 30 to 42 items matched. For states like Rhode Island and Kentucky, and to a lesser extent Georgia, New York, and Texas, the number of matches is similar, independently of the match threshold. This occurrence shows that for some participants, there are items created using ESB that produce very close if not identical results as those of the EAVS, but that for the items that do not align, the results are very different.

A closer look at these mismatches shows that the factors causing lack of alignment differ by case. For example, Massachusetts's results show this state responded "Data not available" to EAVS items B7a-c tracking blank ballots transmitted by the state via email, whereas ESB successfully produced totals for those items, both in total and by voter type, showing ESB's potential utility in filling out EAVS Section B. In the cases of Texas and Rhode Island, on the other hand, many of the mismatches arise because the state was unable to provide Voter Type information in ESB – both states listing Voter Type as "other" in all cases – yet providing these breakdowns for many counties in EAVS, leading to mismatch. These factors should be considered when interpreting the

graph, recognizing that a mismatch does not necessarily indicate ESB data could not successfully replicate the EAVS result, but rather, that it might have been able to provide more or different types of information than that reported by the state or jurisdiction via EAVS.

In addition to comparing ESB and EAVS results item by item, we tested how results align between the two when calculating metrics that involve multiple EAVS items. Ballot return rate was selected for this comparison because it is one of the most relevant metrics when analyzing the voting process. The ballot return rate calculated with EAVS corresponds to the number of ballots returned by *UOCAVA* voters (EAVS item B11a) divided by the number of ballots transmitted to *UOCAVA* voters (EAVS item B5a). With the ESB, ballot return rate was calculated as the number of observations that indicate non-FWAB ballot transmission and return, divided by all observations that indicate non-FWAB ballot transmission. The resulting return rates are shown in Figure 2.

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Figure 2. 2024 ESB-EAVS Ballot Return-Rate Alignment: For most participating jurisdictions, the 2024 General Election ballot return rates are comparable when using ESB and EAVS data.

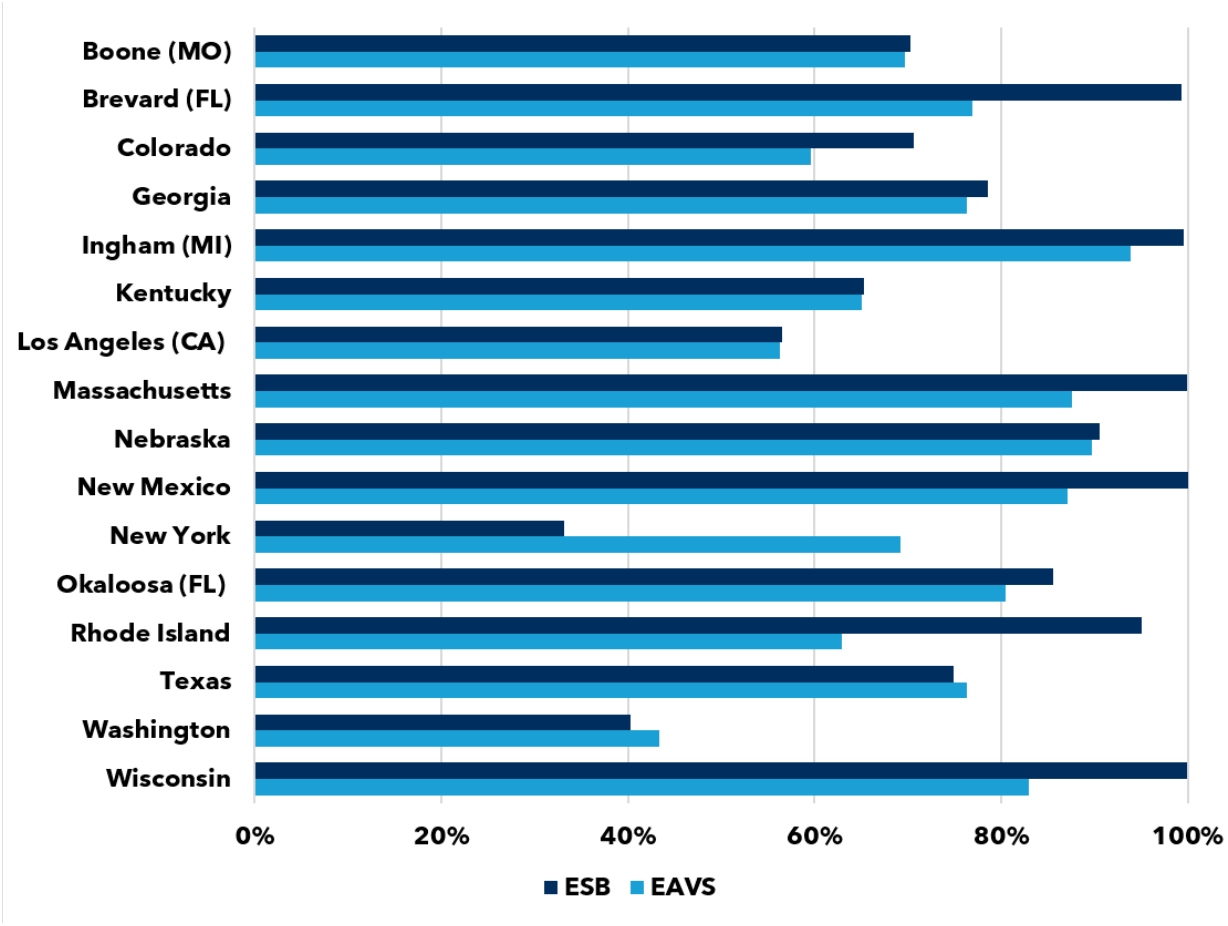


Figure 2 shows that for eight of the 16 participating states and jurisdictions, the ballot return rate calculated using ESB data led to a result within five percentage points of the metric calculated using EAVS data. Twelve of the 16 participants' ballot return rate results were within 15 percentage points of the EAVS-reported rates. The largest discrepancies were with New York and Rhode Island (each over 30 percent) and, to a lesser extent, Brevard County (over 20 percent).

In the case of New York, the large discrepancy between the two approaches appears to be the result of anomalous EAVS 2024 data. In 2022, the ballot return rate for New York, as calculated by both ESB and EAVS, fell within a five percentage point range (i.e., Both fell between 32 and 36 percent). The 2024 ESB data reflects a similar ballot return rate for New York, at 34.7 percent, but the 2024 EAVS data (i.e., B11a/B5a) returns an uncharacteristically high 69.2 percent ballot return rate, thus affecting the calculated ballot return rate and the reflected difference between the two methods of rate calculation.

Rhode Island's discrepancy also seems to be the result of an EAVS-reported figure. Namely, there is 100 percent ESB-EAVS alignment on B1a (i.e., the total number of registered and eligible *UOCAVA* voters) and 99 percent alignment on B11a (total *UOCAVA* ballots returned). However, the B5a figure reported in the 2024 EAVS – i.e., total blank *UOCAVA* ballots transmitted by the state – is very different than both what might be expected as well as what was calculated via ESB. Specifically, the EAVS-reported figure of 5,410 blank ballots transmitted – significantly higher than the total 3,561 eligible *UOCAVA* voters reported both in EAVS and ESB – is also higher than the 3,560 ballot transmissions recorded within 2024 ESB transactional data. This difference greatly affects not just ESB-EAVS alignment on that single variable, but also on the derived ballot return rate calculated using that variable, lowering Rhode Island's ESB-EAVS ballot return rate alignment.

In the cases of Wisconsin, Massachusetts, and New Mexico, as well as Ingham and Brevard Counties, the seemingly unlikely result of 99 to 100 percent of ballots returned when calculated using ESB may be a result of the intersection of state policy and *UOCAVA* voter intentionality: All of these states and jurisdictions share FPCA validity periods of one general election cycle or less, meaning the ballots requested by *UOCAVA* voters in these states and jurisdictions must be renewed for each general election and thus require more intentionality, often reflecting higher levels of voter motivation to complete a returned ballot, compared to states whose voters' requests are treated as valid (and are therefore transmitted blank ballots) until they are known to have moved, separated from the military, and/or otherwise cancelled their *UOCAVA* registration.

The shrinking gap between ballot transmissions and returns may also be affected by 2024's ESB more inclusive methodology, maximizing the number of valid records included in the overall ESB data set and as a result within each voter pipeline phase (see above Methodology section). Specifically, 2024 ESB considers a ballot transmitted even if there is missing information about a ballot's transmission date and/or method, provided there is successful ballot return information. As a result, many observations corresponding to returned ballots that would have been excluded in prior cycles' calculations were included this year's, potentially affecting the ESB-calculated return rate and corresponding ESB-EAVS return rate alignment.

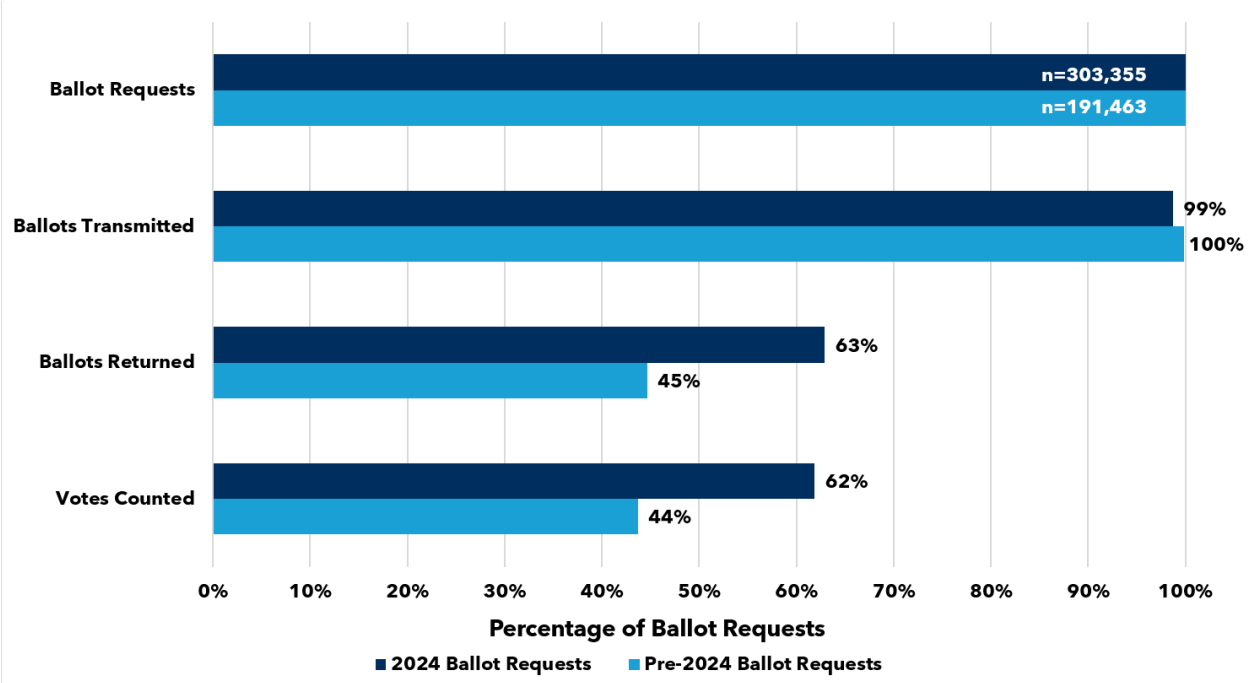
Overall, based on the comparison results between ESB and EAVS data for each of the participating jurisdictions, roughly half of the participants are in a good position to produce EAVS items using ESB data for most of Section B completion. Some participants, however, may need additional assessments of their data, including standardization and/or refinement of data collections systems or practices (e.g., Texas's and Rhode Island's need to provide ESB information on voter type), as well as a related policy review, to help identify improvement areas and assess the feasibility of completing, and even improving upon, Section B of the EAVS using ESB data.

The 2024 *UOCAVA* Voting Pipeline

The voting pipeline begins with registration and/or a request for an absentee ballot and ends with a returned ballot. However, there are many potential drop-out points along the pipeline that may prevent a voter from continuing to later phases in the voting process. Figure 3 shows the basic *UOCAVA* voting pipeline using the 2024 ESB data. In the figure, *UOCAVA* voters are divided into

two groups: (1) those who submitted an absentee ballot request during the 2024 election year before Election Day, and (2) those who had requested an absentee ballot before 2024. In total, there were 489,291 unique ballot requesters in the 2024 ESB data set. In Figure 3 below, there are 494,818 ballot requests among these requesters across the pre-2024 and 2024 request timeframes. In some cases, a voter may have requested ballots across both timeframes. Of those 494,818 requests across both timeframes, 303,355 requests (roughly 61 percent) were made in 2024 by Election Day, and 191,463 (about 39 percent) were made in earlier years.[21]

Figure 3. *UOCAVA* Voting Pipeline: Ballots Transmitted, Returned, and Counted as a Percentage of Total Ballots Requested: Over three-fifths of the ballots requested during election year 2024 were returned and counted.



2024 ESB data shows election offices transmitted ballots to 99.2 percent of those from whom a ballot request was received by Election Day.[22] Overall, less than 0.1 percent of all ballot requests received by Election Day (542 ballot requests) were rejected, 0.3 percent of ballot requests were canceled, and 2.6 percent of ballot requests were categorized as pending. Overall, most voters who enter the *UOCAVA* voting pipeline by submitting a ballot request successfully complete this

[21] There were 4,917 (1.0 percent of) observations with ballot requests dated after Election Day 2024, not included in the above figure. There were also 39 accepted ballot request observations with no reported ballot request date, also not included above.
[22] Nationally, approximately 2.7 percent of ballot requests made using an FPCA were rejected according to data reported in the 2024 EAVS.

phase in the process and move on to have a blank ballot transmitted to them by their local election office.

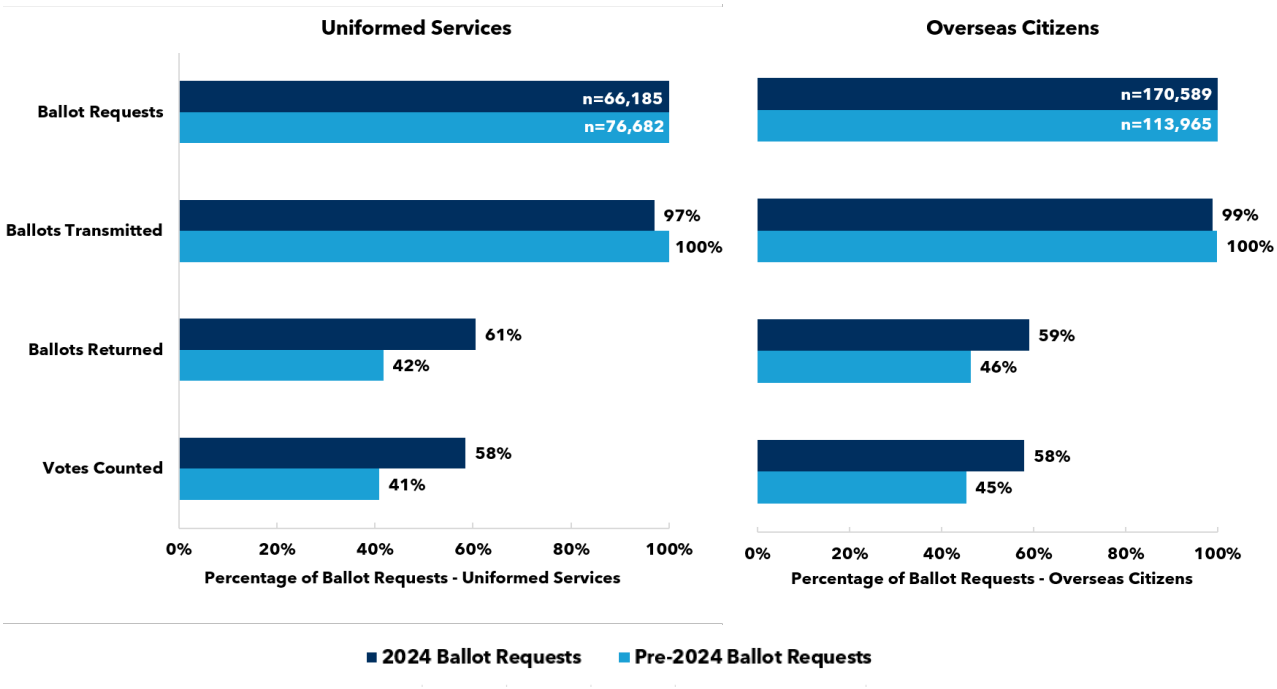
As expected, the greatest drop-off occurred between ballot transmission and ballot return, when over half of ballots (55.8 percent overall) exit the process. ESB data shows 299,465 absentee ballots were transmitted in 2024 (of the 490,721 transmitted across the entire cycle), and 276,353 returned ballots (of which 190,867 were returned in 2024) were ultimately received by election offices.[23]

For voters who successfully returned an absentee ballot, nearly all made it to the end of the pipeline and had their returned ballot counted. ESB data show that 97.9 percent of returned ballots were ultimately counted. Ballot requests received during the year of the election are associated with a higher ballot return rate, consistent with the 2018, 2020, and 2022 ESB research notes' findings. For the 2024 election, those who requested their ballots in 2024 saw 18 percent higher counted ballot rates (i.e., 61.9 percent of all ballots requested in 2024 were ultimately returned and counted) than those requesting their ballots earlier in the cycle, for whom 43.7 percent of ballots requested pre-2024 were ultimately returned and counted. As noted above, nearly all who returned a ballot had it counted, with the greatest pipeline drop-off being between blank ballots transmitted and completed ballots returned, especially among pre-2024 requests.

The overall patterns seen in the *UOCAVA* voting pipeline are consistent across different *UOCAVA* voter types. Figure 4 shows the voting pipeline for Uniformed Service members and overseas citizens. Overall, there were more overseas citizen voters than military voters represented in the 2024 ESB data. Across both groups, and consistent with the findings in the overall data, the primary drop-off point in the *UOCAVA* voting pipeline occurred between ballot transmission and ballot return, with the year of ballot request once again playing an important role in the return rate. Ballots requested in 2024 were returned at higher rates among Uniformed Service members (60.6 percent) and overseas citizens (59.0 percent) compared to those requested in previous years (41.8 percent for Uniformed Service members and 46.4 percent for overseas citizens). For all voter types, the vast majority (97.2 percent of Uniformed Service members and 98.1 percent of overseas citizens) who successfully returned an absentee ballot ultimately had that ballot counted in the 2024 General Election.

[23] This number includes both regular absentee ballots and FWABs, which can be used as a back-up ballot in place of a regular absentee ballot, effectively overriding drop-off associated with ballot transmission issues. In some states, the FWAB may be used even if a *UOCAVA* voter does not first submit an absentee ballot request. Overall, 427 voters across the 2024 ESB participants requested a FWAB, and 396 FWABs were ultimately counted.

Figure 4. *UOCAVA* Voter Pipeline by Voter Type and Request Date: Roughly three-fifths of both Uniformed Service members and overseas citizens who entered the pipeline during 2024 made it all the way through, compared to about two-fifths completion among those who started before 2024.



The Voting Journey: Ballot Request, Transmission, and Return

The main steps of the *UOCAVA* voting process are consistent across states and can be broken down into ballot request, transmission, and return. However, the paths taken by voters to complete each step vary substantially. Differences in how and when voters complete each step affect voters' ability to successfully complete the process and have their ballot counted. State policy and other factors – such as mail reliability for citizens living abroad – also affect how voters complete each step of the voting process. This section examines how voters navigated each phase in the *UOCAVA* voting pipeline, the results, and potential factors that affected voters' decisions during the process.

Ballot Requests

The first steps in the voting process are registering to vote and requesting an absentee ballot. For *UOCAVA* voters, these two processes may be completed at the same time using an FPCA, which is accepted by all states as both a registration and absentee ballot request form. Absentee ballots may also be requested using state ballot request forms or other procedures. However, if the voter does not indicate their *UOCAVA* status, those methods may not provide access to the same protections available through an FPCA. States differ in requirements for ballot requests,

particularly in how often this step needs to be completed, with some states requiring that a new request be submitted for every election, and others continuing to recognize a ballot request as valid until the voter moves or cancels their request.

ESB tracks several distinct types of ballot requests, of which FPCAs and state applications account for 82.9 percent of all ESB ballot requests.[24] The FPCA is unique to *UOCAVA* voters, allowing them to both register and request an absentee ballot, and ensuring that, regardless of whether they indicate their *UOCAVA* status, they are given the special protections offered by *UOCAVA* and the MOVE Act, such as having a ballot transmitted at least 45 days before an election, and ensuring that at least one electronic mode of blank ballot transmission is available to voters.

Figure 5. Ballot Return Rate by Request Type and Year: FPCA requests spiked in election year with higher return rates overall; state application return rates stayed even across the cycle, as state application requests outpaced those for FPCAs for the 2024 cycle overall.[25]

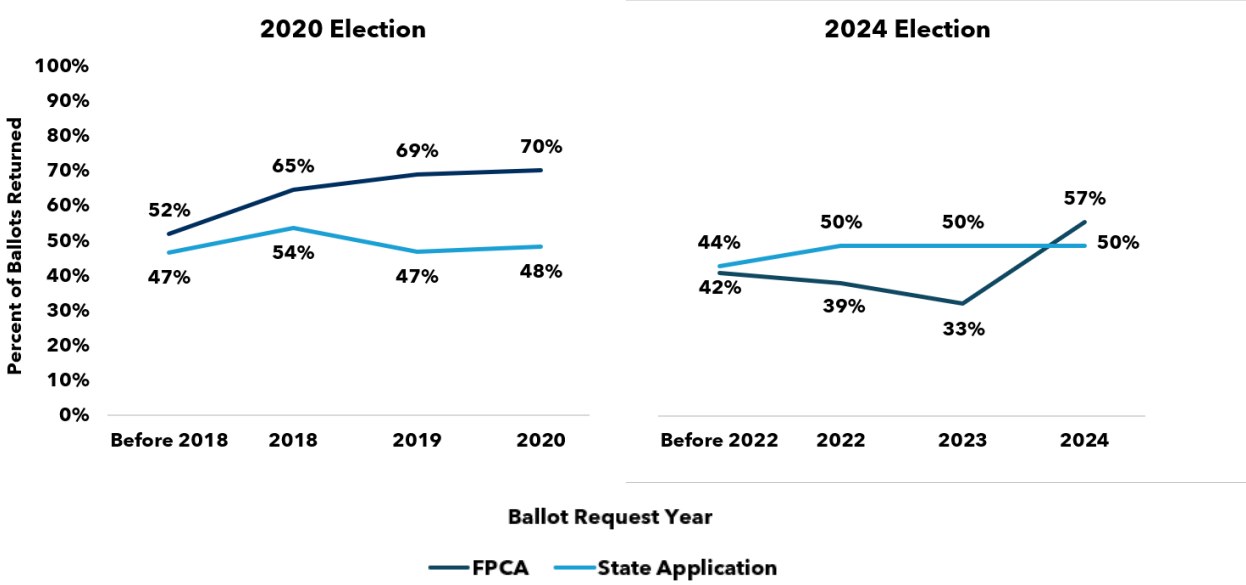


Figure 5 shows the absentee ballot return rate by request year and method for the 2020 and 2024 general elections. Ballot return rates remain highest overall among absentee ballot requesters using an FPCA and among those requests originating during election year itself. Despite the FPCA's higher return rates overall and late-cycle spike, FPCA return rates fell in this Presidential cycle compared to the last, and the gap between FPCA and state application return rates shrunk. Unlike the last Presidential election, FPCA return rates in this cycle stayed below the state application return rates for most request years – namely, for all ballots requested prior to election

[24] The other four ballot request categories covered in ESB (i.e., "FWAB," "Informal Request," "NVRA," and "Untracked") accounted for 17.1 percent of all ballot requests.
[25] The graphs exclude observations that do not provide data on ballot request type or have a request type other than FPCA or state application. They also exclude observations with missing data on ballot request date.

year itself. Due to the volume of FPCAs requested in 2024, however, FPCAs saw higher return rates overall. This relationship may reflect a variety of factors, including differences in the voting experiences and characteristics of *UOCAVA* voters who use an FPCA versus other ballot request methods (e.g., Voters using an FPCA may be more knowledgeable about the *UOCAVA* voting process). It may also reflect differences in how ballot requests are submitted and processed across jurisdictions. The relationship further highlights the interaction between request method and request timing, with ballot return rates generally highest among election-year requests, and especially high among voters using an FPCA.

The use of FPCAs and state applications for each of the *UOCAVA* populations shows very different trends. Uniformed Service members relied heavily on state applications to register to vote, as 74.5 percent of them used this form, compared to the 9.1 percent who used FPCAs and the 16.4 percent whose records did not specify or pointed to other methods. This stands in contrast with overseas citizens, for whom the FPCA was the most common tracked form of registration (42.5 percent), followed by state applications (37.2 percent) and "other" registration methods (20.3 percent).[26]

Looking at when those FPCAs and state applications were filed, state applications for the 2024 presidential election outpaced FPCA requests both overall and across all years except for 2024 itself, when FPCA requests spiked. This stands in contrast to the 2020 presidential election, when FPCAs outnumbered state applications across all years and overall. Because many Uniformed Service members use their state's voting application process, targeted outreach from the military could help raise awareness of the FPCA. This would encourage more *UOCAVA* voters to submit an FPCA each year to help keep their information current, ensure they receive their ballot on time, and maintain access to the full range of *UOCAVA* voting protections.

Ballot Request Timeline

Previous ESB research notes have found that during presidential elections, most ballot requests originate during the election year, whereas for midterms, a large portion of ballot requests originate from the previous presidential election, showing a "carryover" effect. The results for the 2024 General Election follow these results in that most ballot requests among 2024 ESB participants originated in 2024. These results, however, differ by state and jurisdiction, and are largely dependent on state policies for ballot requests' validity periods. For example, in states such as Georgia, where FPCAs are valid for one general election, ESB data shows nearly all ballot

[26] While NVRA requests (n=447) and, to a lesser extent, informal requests (n=4219), were limited in number, "Untracked" made up over 79,000 ESB observations total. Removing these Untracked ballots from the base, *UOCAVA* voters requested 410,269 ballots total, of which 47.5 percent were FPCA and 51.5 percent were state applications. Uniformed Service members, whose ballots made up 35.7 percent of the above, were 86.7 percent state application requests and 10.6 percent FPCA requests. Overseas citizens, 64.3 percent of the above, were more evenly split, with 53.0 percent of their requests being for FPCAs, and 46.4 percent being for state applications.

requests (99.7 percent) originated in 2024.[27] Ten of the 16 jurisdictions included in the 2024 ESB data fit this category and show at least 97 percent of their ballot requests taking place in 2024. On the other hand, in the states of California, Colorado, and Washington, FPCAs are valid as ballot requests until the voter moves, returns to the United States, separates from the military, and/or otherwise cancels their registration for such reasons. Each of these participating states and jurisdictions, therefore, showed over half of the ballot requests originating before 2022: Los Angeles County (CA) reported over 63.6 percent, Colorado reported 58.0 percent, and Washington reported 50.1 percent of its ballot requests all originated pre-2022.

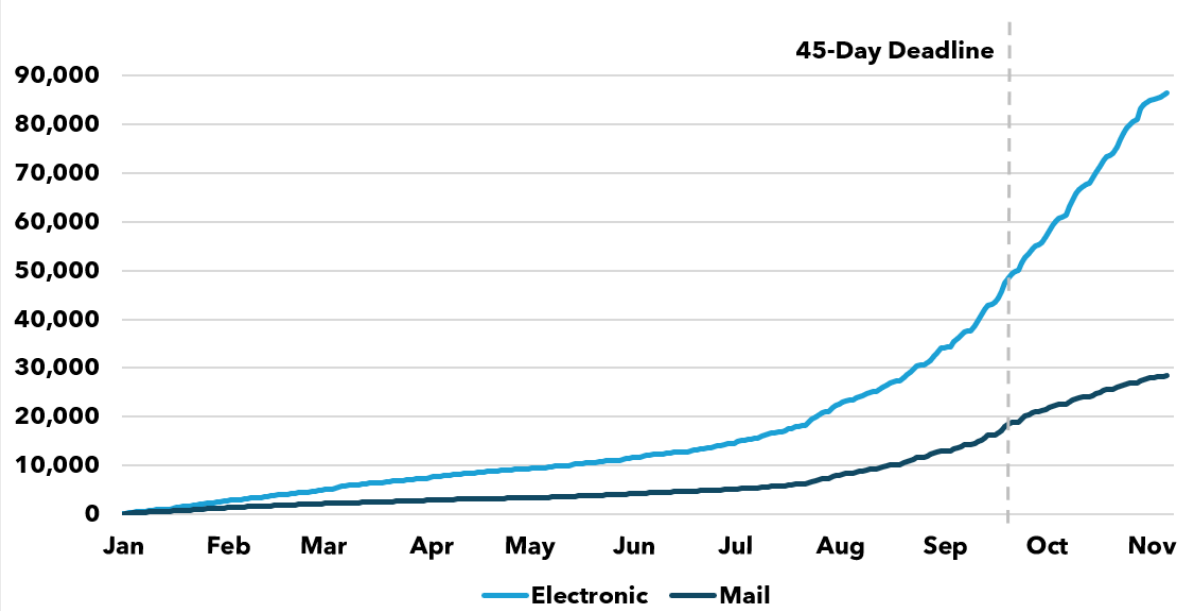
For ballot requests received during election year, the timeline was somewhat different to that of the 2020 General Election, likely owing at least in part to worldwide restrictions and other COVID-19 pandemic-related anomalies in effect during the 2020 cycle. For both elections, however, nearly three-fifths of the ballot requests filed during the election year were received before the 45-day deadline, and over 40 percent of the ballot requests filed during election year were received between the 45-day deadline and Election Day.

Additionally, most *UOCAVA* voters who requested a blank ballot in 2024 used an electronic method such as fax, email, or online portal to send in their ballot request. Figure 6 shows that electronic request methods outnumbered mail ballot requests during the entire year. For both request methods, the pace of ballot requests was relatively steady until end-July, at which point the number of ballot requests received per day by election offices increased as Election Day approached. Overall, the electronic request trendline showed more of an exponential growth curve, starting from late summer and not flattening until November. While mail requests were steadily received up to and through the election, the growth curve tapers off. This is consistent with data showing 66 percent of mail-requested ballots were sent before the 45-day deadline, compared to 57 percent of electronically requested ballots, which continued increasingly arriving well after the 45-day mark. This likely reflects *UOCAVA* voters – especially those who expect or have experienced longer lead times when navigating international postal systems – intentionally leaving themselves more time for postal mail participation.

Finally, when looking at ballot request timelines across voter types, 55 percent of Uniformed Service member voters requested a ballot in 2024 before the 45-day deadline, whereas 63 percent of overseas citizens requested a ballot by that date, showing that a larger portion of overseas citizen voters started the voting process early compared to Uniformed Service members. Differences in the resources, information, and opportunities readily available to active duty military and their eligible family members, particularly during deployments, as compared to their overseas citizen counterparts, may have a bearing on these and other *UOCAVA* ballot request patterns.

[27] Information on states' policy on the FPCA validity period was obtained from both FVAP's Voting Assistance Guide, as well as EAC's Policy Survey, Election Assistance Commission (2025), "Election Administration and Voting Survey."

Figure 6. Timeline for Mail and Electronic Ballot Requests in 2024: ESB-participating jurisdictions reported more electronic ballot requests than mail ballot requests in election year.[28]



Impact of Ballot Request Timing on Voting Process Completion

Ballot request timing impacts subsequent steps in the *UOCAVA* voting process in various ways. In previous presidential elections (i.e., 2016 and 2020), ESB data show that same-year requesters have higher ballot return rates. This is likely because those who actively requested a ballot were more interested in voting and more motivated to complete the process than those who received a ballot automatically as a result of a previous request or eligibility.[29] Figure 7 shows a similar trend for ballots returned in the 2024 Presidential Election: Ballots requested during the election year had return rates significantly higher than ballots requested before 2024.

As with the 2020 election, return rates were highest among ballots requested within the election year but also near or before the 45-day deadline, with return rates steadily declining as Election Day drew closer (i.e., requested less than 29 days in advance). However, in 2024, even those ballots requested fewer than 15 days before Election Day saw higher return rates than did ballots requested before election year. While states make every effort to transmit ballots to all ballot requests arriving by Election Day, those ballot requests arriving before the 45-day deadline are

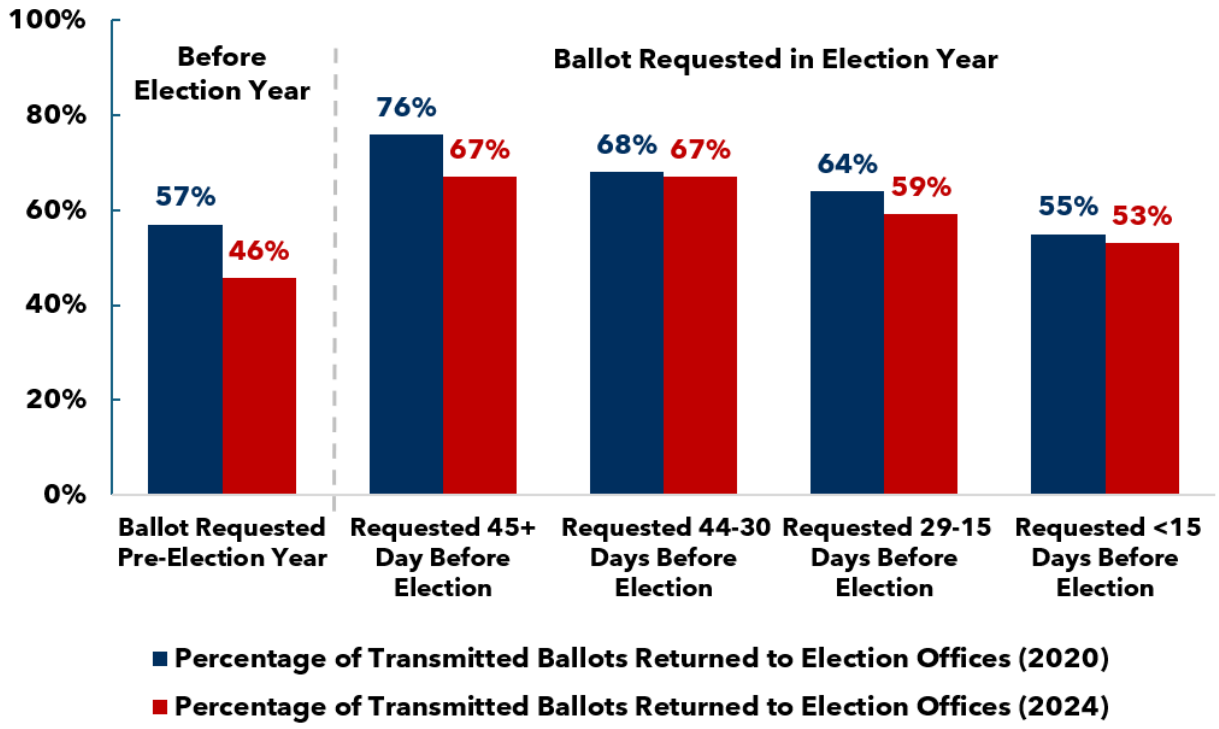
[28] The states of Georgia, Massachusetts, Nebraska, New York, Rhode Island, and Texas, and the jurisdiction of Ingham County (MI), are excluded from this chart for reporting all ballot request modes as "Untracked." Just over 17 percent of Colorado's observations, and 20.5 percent of Wisconsin's observations, are also excluded from this chart due to "Untracked" request method. This graph includes observations with ballot requests dated between January 1, 2024 and Election Day.

[29] Federal Voting Assistance Program (2020). "Data Standardization and the UOCAVA Voting Pipeline." Available at: https://www.fvap.gov/uploads/FVAP/Reports/2018-ESB-Research-Note.pdf

guaranteed blank ballot transmission by their state. Therefore, and perhaps unsurprisingly, ESB data across all three presidential elections show that ballot requests arriving at least one month in advance of the election fare best in terms of eventual ballot return rates.

Ballot return rates do show gradual decline across the three Presidential cycles within each request window and thus overall, suggesting areas for further research.[30] Nevertheless, trends in the ESB data relationship between ballot request timing and successful ballot return reveal an optimal ballot-request-timing window: namely, within election year, but at least one month in advance of Election Day. This seems to strike the best balance between the motivation factor seen among same-year requesters, versus the increased success rates seen when leaving sufficient buffer and preparation time for smoothly passing through each pipeline phase.

Figure 7. Percentage of Ballots Returned based on Ballot Request Date: Ballots requested in the election year had higher return rates than ballots requested before 2024.



Ballot Request Method and UOCAVA *Populations*

Ballot requests vary in timing, form type, and submission method. Most states allow *UOCAVA* voters to submit their ballot request by mail or by using some electronic method such as email, fax, or an online portal. For the 2024 General Election, reporting ESB states and jurisdictions

[30] See FVAP Research Note "Data Standardization and the 2020 General Election," Figure 10.

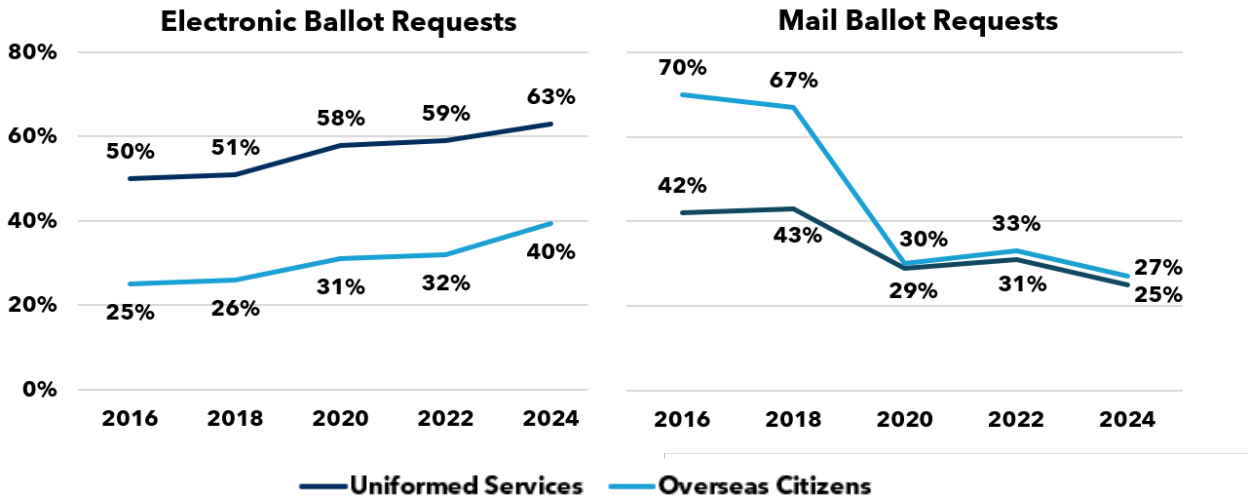
received 47.8 percent of the ballot requests through an electronic method and 26.4 percent of ballot requests by mail.[31] These results align with 2020's ESB research note, in which electronic ballot requests outnumbered mail ballot requests. It is worth noting that in the first research notes, ESB data from 2018 and 2016 showed more ballots requested via mail than electronic methods, and that the shift shown in 2020 – likely impacted to some degree by COVID-19's disruptions on mail – carried over to 2022, but that the increased prevalence of electronic methods has also gradually increased with time, establishing electronic ballot requests as the preferred method for UOCAVA voters to start their voting process.[32,33]

Within the electronic methods used to request a ballot, online ballot requests accounted for 91.2 percent of the 184,932 ballots requested electronically; email accounted for 8.7 percent of electronic ballot requests; and fax accounted for 0.1 percent of those requests.

When comparing Uniformed Service members and overseas citizens in their use of mail and electronic methods to request their absentee ballots, we found that among states and jurisdictions that have reported ESB data uninterruptedly between 2016 and 2024, Uniformed Service members relied more on electronic ballot requests than did overseas citizens during those years, and both groups increasingly relied on electronic ballot requests over time. However, overseas citizens' use of mail to request a ballot decreased notably in 2020 compared to the previous two general elections – probably triggered by the limitations on international mail during the COVID-19 pandemic – and remained at a similar level for both the 2022 and 2024 General Elections, as shown in Figure 8. Conversely, there is an increase among overseas citizens in the use of electronic methods of ballot request starting in 2020 and increasing notably in 2024. While the increase does not match the observed decrease in mail ballot requests for these years, trends clearly do show a steady request method reversal among both voter groups over time.[34]

[31] In-person, phone, and "other" ballot requests accounted for 4.2 percent of ballot requests, and 38.1 percent of ballot requests were categorized as "Untracked."
[32] The reporting states and jurisdictions were slightly different in 2022, 2020, 2018, and 2016, so the comparison needs to be taken with caution (see Table 1 for details).
[33] Mail disruptions particularly affected overseas citizens, as overseas Uniformed Service members use overseas military mail, which is operated independently of regular civilian mail.
[34] In 2024, many observations continue to list the ballot request method as "Untracked." States and jurisdictions are continually encouraged to track these methods to the extent possible for greater data utility and trend tracking.

Figure 8. Percentage of Ballots Requested by Mode and Election: Electronic ballot requests continue outpacing mail requests, especially among Uniformed Service members.[35]



The high use of electronic methods to request a ballot among Uniformed Service members stands in contrast to the tendency of this *UOCAVA* population to rely more on mail to have their ballots transmitted from and returned to the election office – both trends continuing in 2024. The difference in the use of the electronic ballot request between overseas citizens and Uniformed Service members needs to be further analyzed, but factors like perceptions of trust and reliability across various request, transmission, and return modes by voter type; request, transmission, and return policies of the state where the ballot request originated; the messaging and communications to Uniformed Service members; and the convenience and availability of each ballot request method may have played a role in the results.

Blank Ballot Transmission

Once a ballot request is received and has been deemed valid, the election office transmits a blank ballot to the *UOCAVA* voter. In compliance with the *MOVE Act*, states are required to transmit blank ballots to voters at least 45 days before Election Day, provided the voter has requested a ballot before that deadline. Data from reporting states and jurisdictions confirm their adherence to the *UOCAVA*, as 99.6 percent of ballot requests dated before the 45-day deadline led to a ballot transmission by September 21, 2024, the date of the 45-day deadline for the 2024 General Election.

For those ballot requests received past the 45-day deadline, ESB data show that election offices diligently processed the requests and transmitted blank ballots to *UOCAVA* voters, usually in a

[35] This graph only uses data from states and jurisdictions that have reported ESB data continuously from 2016 through 2024 – namely, Colorado, Los Angeles (CA), New York, Washington, and Wisconsin. The list does not include Bexar or Harris counties (TX) given no available ballot request method ESB data for the 2024 election cycle.

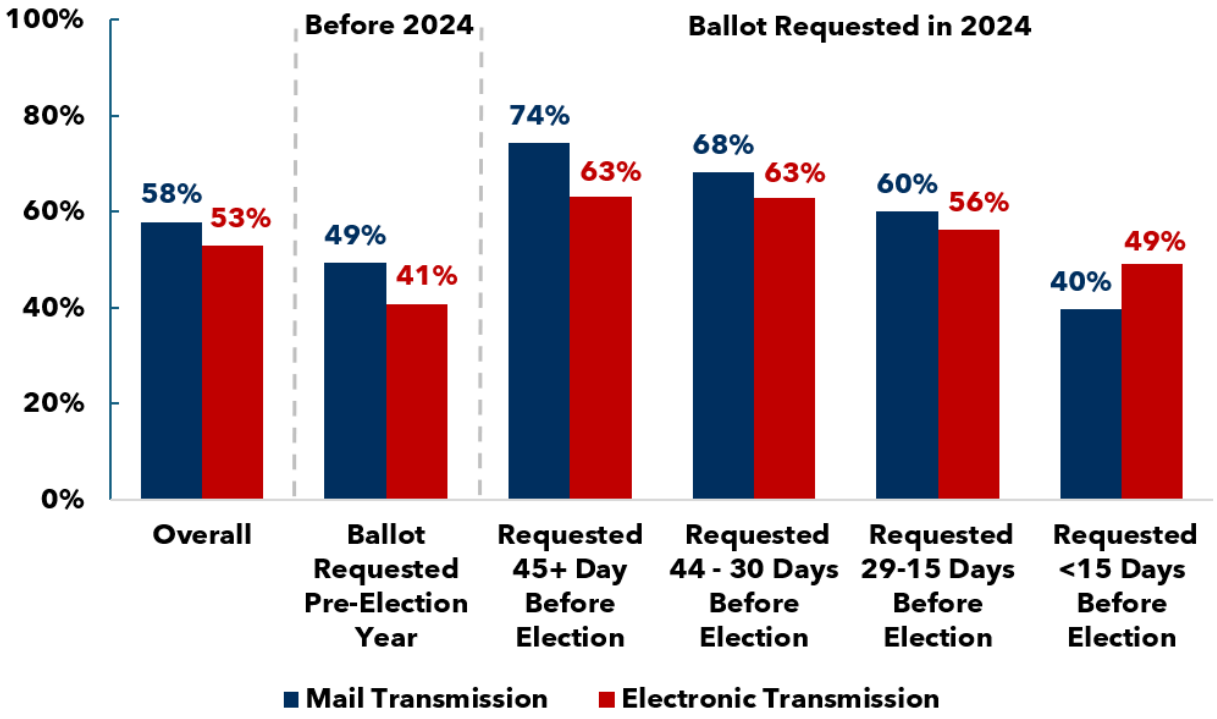
week or less from the date they received the ballot request. Although the ballot request processing times are generally short, ballot requests received too close to Election Day delay the start of the voting process and make it more difficult for voters to successfully complete the process on time.

Among participating states and jurisdictions, 39.9 percent of ballots transmitted to voters who requested their ballot by the 45-day deadline were sent by regular mail (including requests made in 2024 and earlier), whereas electronic transmissions accounted for 56.8 percent of ballots requested before the deadline. For ballot requests received after the 45-day deadline, which were fewer overall, 54.9 percent of these ballots were transmitted electronically, and 24.9 percent by regular mail.

Figure 9 shows return rates for ballots transmitted by mail or by electronic means, based on the timing of the ballot request (and, subsequently, transmission). Both overall, and across all request dates either before or during election year, return rates were higher for ballots transmitted by mail, save for one exception: those ballots requested within 15 days of the election. In these cases, electronically transmitted ballots understandably saw higher return rates. The difference between the return rates for ballots transmitted by mail and electronically is particularly notable for ballots requested on election year, 45 or more days before Election Day, when 74.3 percent of ballots transmitted by mail were returned, compared to 63.1 percent of ballots that were transmitted electronically. This result is likely impacted by the time a mail ballot takes to reach its destination, compared to when transmitted electronically. It also emphasizes the importance of voters taking early action, leaving enough time to complete the voting process, as well as the usefulness of voters' electronic request method options when there are time constraints.

Data Standardization and the 2024 General Election

Figure 9. Percentage of Ballots Returned by Transmission Mode: Blank ballots transmitted by mail had higher return rates than blank ballots transmitted electronically overall.



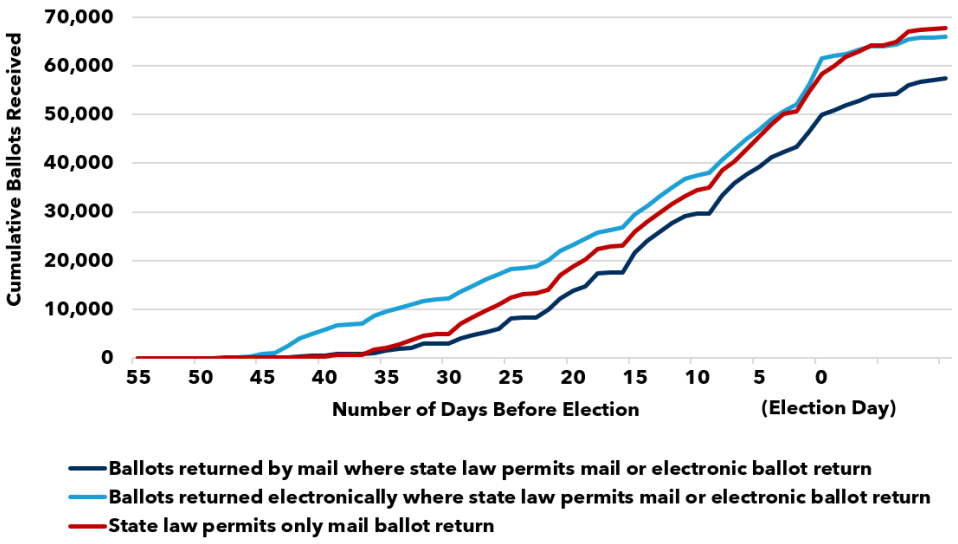
Among the ballots that were returned by voters to the election office, only 1.8 percent were ultimately rejected. Overall, ballots requested in 2024 were rejected at slightly lower rates (1.7 percent) than ballots requested pre-2024 (2.1 percent). Looking at the rejection rate by ballot request timing and transmission mode in 2024, the most relevant factor was the timing of the ballot request. Independently of the ballot transmission method, only about 1.2 percent of ballots requested in 2024 before the 45-day deadline were rejected. The same was true (1.2 percent rejection rate) for those requested between 30 and 44 days out. The rejection rate increased to 2.3 percent for ballots requested between 29 and 15 days before Election Day, and ballots requested in the two weeks leading to the election had the highest rejection rates (4.3 percent). Ballots transmitted electronically saw slightly higher rejections than mail transmissions, with mail transmissions' rejections mostly coming from early-cycle requests, and electronic transmissions' rejections mostly coming from late-cycle requests.

The data on ballot return and ballot rejection show the importance of both when a ballot request is received and how the ballot is then transmitted to the *UOCAVA* voter, based on the ability of that voter to successfully complete the *UOCAVA* voting process. Ideally, ballot requests should be submitted early during the election year, before the 45-day deadline, to increase the chances of completing the voting process successfully.

Ballot Return

During the last step of the voting process, the voter returns their completed ballot to the election office, where it is ultimately processed and either counted or rejected. Of the total 489,942 ballots transmitted by participating states and jurisdictions for the 2024 General Election, 276,353 were returned for counting (for an overall ballot return rate of 56.3 percent).[36] Depending on state policies, *UOCAVA* voters may have different options to return their completed ballots. Among reporting states and jurisdictions in the 2024 ESB, the states of Colorado, Massachusetts, Nebraska, New Mexico, Rhode Island, and Washington, as well as Florida and California, which contain ESB-participating jurisdictions, allowed for some form of electronic ballot return (i.e., email, secure online portal, and/or fax) – albeit sometimes with conditions (e.g., Nebraska requires prior approval for fax or email return; Rhode Island allows fax return only if a ballot was requested by fax but allows online portal return in all cases; and Florida allows for fax return only if the voter is outside the U.S.). Meanwhile, Georgia, Kentucky, Michigan, Missouri, New York, Texas, and Wisconsin all require that *UOCAVA* voters return absentee ballots by regular mail in most if not all cases.[37]

Figure 10. Cumulative Number of Ballots Returned by Date and Mode: Mail ballot return rates are somewhat lower than electronic return rates among states allowing electronic return in 2024.



[36] In this research note, the term "returned ballots" refers to ballots that were received and processed by election offices. There might be instances when a voter did return a ballot, but it might not have reached the election office, or it did, but past the Election Day and canvass deadline and was then not recorded. Those ballots, which were returned by the voter, will not be included in the data since they were not ultimately recorded.

[37] Federal Voting Assistance Program (2023). "2024–2025 Voting Assistance Guide." Some of these states allowed electronic ballot return only in very particular circumstances and thus were included in the group allowing only mail ballot return. Texas allows for fax ballot return, and Missouri for email and fax return, only to *UOCAVA* voters located in a hostile fire area.

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Figure 10 presents the timeline and mode used by voters to return their ballots. The red line shows ballots returned by mail in those states that only allow mail as a form of ballot return, and the blue lines show ballots returned by mail (dark blue) and electronically (light blue) in states that allow for both ballot-return options. While the graph shows that electronic return was overall the most-used method of ballot return by *UOCAVA* voters in 2024, it does not account for the fact that the mail returns are split into two separately tracked categories: mail returns in states that only permit mail return, and mail returns in states that permit both mail and electronic return. Cumulatively, mail ballot returns still outnumbered electronic returns. However, while state policies and voter perceptions both impact voter behavior, *UOCAVA* voters in states that allow electronic return are increasingly using electronic methods to return their ballots.

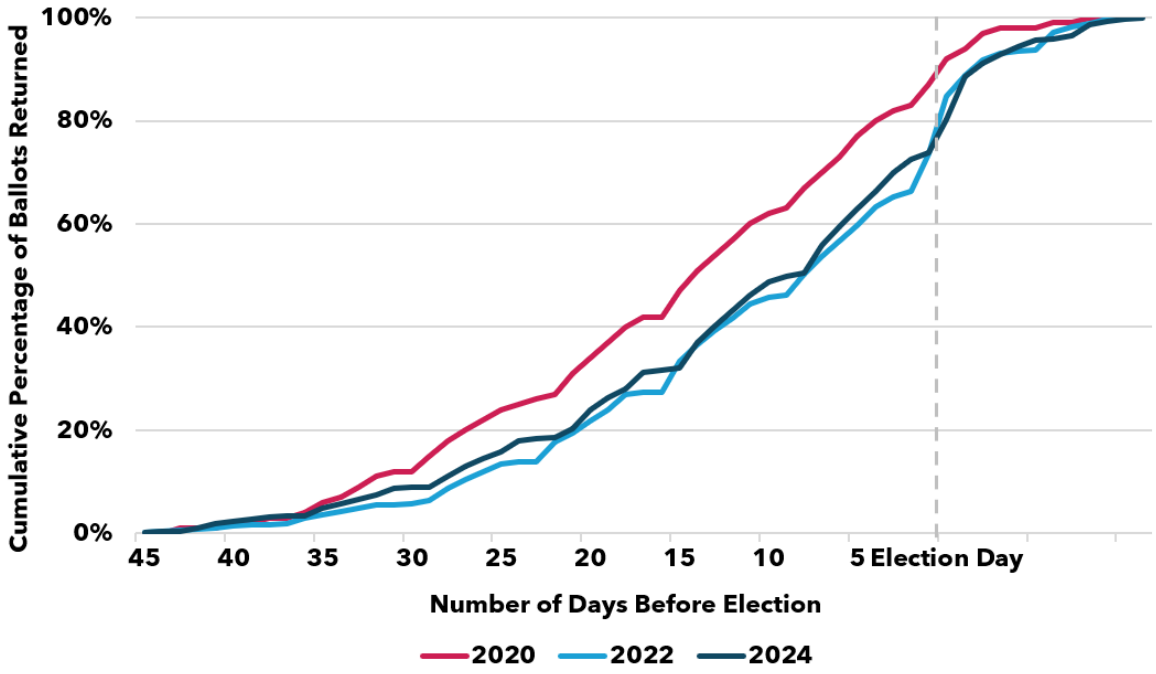
When comparing the return timeline with previous elections, we found that in 2024 there was another spike in the number of ballots returned electronically close to Election Day – like the one present in 2022, albeit somewhat more gradually and less pronounced until just days prior to the election. This is likely because some voters, knowing they could return their ballot electronically, waited until close to Election Day to cast their ballots. Still, this was not the case with most electronic ballots, as these ballots were returned at a steadier pace than mail ballots throughout the weeks leading to Election Day, and began flowing in about 10 days before mail ballots did, just after the 45-day mark – understandable, given the processing and transit time required for mail ballot return. Compared to 2020, there are fewer total ballots returned, and mail-only return states' ballots make up a smaller percentage of them. While the curves more closely resemble 2020 results in their steadiness, this was the first election in which electronic returns surpassed the other two mail return categories up to and through Election Day. Because COVID-19 pandemic uncertainty affected the 2020 presidential cycle's returns, and if more states make electronic ballot return options available going forward, future presidential cycles will more clearly reveal the underlying patterns and confirm trends surrounding electronic return and voter preferences.

To further analyze the ballot-return timeline, we compared those for the last three general elections across states and jurisdictions that have provided ESB data uninterruptedly since 2020.[38] Figure 11 shows that in 2020, *UOCAVA* voters returned their ballots considerably earlier than in 2022 and 2024. Given 2018 timing was comparable to 2022, it is likely that 2020 voters followed the FVAP recommendations of returning their ballots as early as possible to avoid potential delays and to ensure that their ballots were counted. Overall, ballots in 2024 were received slightly earlier but very similarly to those for the 2022 midterm election, and about five days later than those for the 2020 presidential election. For example, 60 percent of the ballots were returned one week before Election Day in 2024, whereas the 60 percent mark was reached 11 days before Election Day in 2020 and five days before Election Day in 2022.

[38] The states and jurisdictions included are Colorado, New York, Rhode Island, Texas, Washington, Wisconsin, Okaloosa County (FL), Ingham County (MI), Los Angeles County (CA), and Richmond County (GA).

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Figure 11. Cumulative Percentage of Ballots Returned, 2020-2024: 2024 *UOCAVA* voters' ballot return timing was very similar to but slightly ahead of the timing of 2022 voters.



After a ballot is returned by the voter and arrives at the election office, officials review it to confirm whether the ballot is valid and should be counted or whether it does not comply with the corresponding requirements and should be rejected. Table 2 shows the outcomes of the ballots returned by *UOCAVA* voters for the 2024 election, including the reasons for ballot rejection. Among the reporting states and jurisdictions, only 1.8 percent of the ballots returned were ultimately rejected. The most common rejection reasons were "Missing the voting deadline" (0.5 percent of all ballots returned, or 29.0 percent of all rejected ballots), "Mismatch of voter signature" (0.5 percent of all ballots returned, or 28.6 percent of rejected ballots), and "Missing the voter's signature" (0.2 percent of all ballots returned, or 12.0 percent of the rejected ballots). The category "Other" includes reasons that were too small to be reported independently (e.g., postmark issues) and is also the umbrella reason used when a ballot rejection cause cannot be identified among the options provided in the data standard. These "Other Reasons" totaled 0.5 percent of all ballots returned, or 29.8 percent of all rejected ballots.

Table 2. Outcome of Ballots Returned: Most ballots returned by *UOCAVA* voters were ultimately counted.[39]

Ballot Outcome	Percentage of All Ballots Returned	Percentage of Rejected Ballots
Counted Ballot	98.2%	–
Rejected Ballot – Any Reason	1.8%	100.0%
Rejected Ballot – Missed Deadline	*0.5%**	*29.0%**
Rejected Ballot – Other Reason	*0.5%**	*29.8%**
Rejected Ballot – Mismatch Voter Signature	*0.5%**	*28.6%**
Rejected Ballot – Missing Voter Signature	*0.2%**	*12.7%**

**Values are a subset of Rejected Ballot – Any Reason*

[39] Reporting states and jurisdictions provide additional details in an open-ended field about the reasons for ballots rejected because of "Other." Those details can be further analyzed and categorized to find underlying rejection categories.

Conclusion

The number of reporting states and jurisdictions for the ESB Data Standard continues to represent a sizable portion of the total *UOCAVA* population, and the supporting analyses continue to show unique advantages of transactional data when analyzing the voting process. Additionally, the comparison between ESB-produced metrics and EAVS results show that some participating states and jurisdictions are getting close to potentially providing ESB data and complete Section B of the EAVS automatically using the ESB data set, provided sufficient data entry standardization. The advantage of this process is not only that the states and jurisdictions can reduce their time burden to report EAVS data, as they will be providing a standardized version of their *UOCAVA* voter records, but also that the ESB transactional data can go beyond the aggregate-level data reported in EAVS and allow for more nuanced research that can provide further insights to election officials on the *UOCAVA* voting experience and processes that might need attention.

Although the prospect of having new states provide data about *UOCAVA* voting through ESB instead of manually completing Section B of the EAVS is closer than in previous elections, there are still some areas that need to be reviewed to ensure data is accurate and that no information is lost in the transition. For example, as referenced in this research note, items in EAVS that states responded to with "Does not apply" or "Data not available" are often but not always identified in ESB, where a lack of data in a field may be because there was no data to report; because that data is not tracked (often marked accordingly as "untracked" in ESB data); or because that item does not apply to that particular state. In some cases, there is an accuracy issue within EAVS data, which cannot always be assumed to have been accurately reported. ESB data provides a useful standard of comparison. In any case, it is important to review and understand state-specific policies and to contextualize and analyze ESB data accordingly.

Additionally, there are differences in the readiness among the different ESB-participating states and jurisdictions. Some are in a good position to be able to report most or all EAVS metrics using ESB, whereas others still are missing some important fields or data in ESB that make it impossible to provide information to all the items in Section B.

Independent of the readiness for reporting EAVS data with ESB, the transactional data collected through ESB creates a better understanding of voter behavior and the importance of congressional reforms that provide additional protections to the *UOCAVA* population (e.g., the requirement of sending a blank ballot to *UOCAVA* voters at least 45 days before the election). The availability of dates associated with each of the main steps in the voting process (i.e., ballot request, ballot transmission, and ballot return) provides additional insight into the voting process. The results of this analysis show that ballot return rates were higher for ballots requested during the election year, and that ballots requested before the 45-day deadline had lower rejection rates than those requested closer to Election Day. This demonstrates the importance for voters to take early action to enable successful voting completion.

In addition to the 45-day deadline, the use of FPCAs and requesting the ballot during the election year were associated with higher ballot return rates — much like in the 2018, 2020, and 2022

elections. FPCAs provide protections to the *UOCAVA* population regardless of whether they indicate their *UOCAVA* voter status and ensure that they can receive a ballot through an electronic method. The 2024 cycle revealed that FPCA requests were most common during the election year. In-year ballot requests help to ensure that a voter's information is up to date and that their state will send them a ballot for the upcoming election, since many states require that a ballot request be submitted every election year. These results align with and can be further enhanced by non-election-year promotion of the FVAP-encouraged best practice for *UOCAVA* voters to complete an FPCA every January of every year, so that it can be processed well in advance of the 45-day deadline, as well as whenever a voter moves or changes duty station, to ensure that their information is always up to date and that they receive all general election ballots in a timely manner.

The results of this research note also show that Uniformed Service members relied more on electronic ballot requests compared to overseas citizens for the last five general elections (i.e., 2016 to 2024). However, overseas citizens also increased their use of electronic means to request a ballot for the 2024 General Election, following the trend started in 2020 that led electronic ballot requests to outnumber mail ballot requests for the first time since the ESB data collection started in 2016. One big change when comparing results with the 2020 ESB is that ballots in 2024 were returned later than in 2020 and closer to the timeline observed in 2018 and 2022. This effect is likely the result of the 2020 ballot return being impacted by the COVID-19 pandemic and voters acting early to ensure their ballots arrived on time and were successfully counted. Once the impact of the pandemic diminished, the timeline for ballot return among *UOCAVA* voters returned to pre-pandemic levels.

The findings of this research note contribute to expanding the knowledge on *UOCAVA* voter behavior and provide additional evidence for best practices to successfully complete the voting process. Transactional data also allow for performing an in-depth analysis on the timeline of the voting process and show changes in the 2024 General Election process when compared with the previous general elections.

The continued effort to collect and standardize transactional data on the *UOCAVA* voting process, and the steady and growing number of reporting states and jurisdictions providing data to the ESB Data Standard, contribute to the increased insight that these innovative analyses provide on the *UOCAVA* voting experience. FVAP will continue to encourage more states and jurisdictions to participate in this effort so that results can be more representative at the national level; and more states and localities can benefit from the insight gained through this research on best practices and how best to support the military, their families, and overseas citizens with the absentee voting process.

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Appendix A: Tabulation of 2024 ESB Data

The 2024 Election Administration and Voting Survey (EAVS) Section B (ESB) Data Standard consisted of 489,291 *UOCAVA* voters who requested an absentee ballot for the 2024 General Election. The ESB Data Standard collects data on when and how *UOCAVA* voters requested their ballots, got their ballots transmitted, and how and when they returned them. Results for key variables are reported in this appendix, broken down by demographic subpopulations based on jurisdiction and voter type. Sample sizes (n=) are included for each category.

Due to differences in state or jurisdictional policies, as well as differences in voter records and the systems in which they are recorded and maintained, the ESB data standard contains complexities not in a traditional data set. Despite extensive data cleaning and standardization, there remain some cases, particularly for items surrounding ballot request and transmission, for which a single UniqueID (voter) appears more than once per category, resulting in a larger "n" than what might be present within more specific calculations for that item. See Methodology section for details.

State/Jurisdiction Name. This table breaks down the voting state/jurisdiction from the UOCAVA voters represented in the sample [n=489,291].

State/Jurisdiction		
	n=	Percent of Total Sample
Boone (MO)	522	0.1%
Brevard (FL)	4,373	0.9%
Colorado	46,833	9.6%
Georgia	23,975	4.9%
Ingham (MI)	986	0.2%
Kentucky	4,608	0.9%
Los Angeles (CA)	37,246	7.6%
Massachusetts	23,546	4.8%
Nebraska	2,701	0.6%
New Mexico	6,807	1.4%
New York	62,195	12.7%
Okaloosa (FL)	7,024	1.4%
Rhode Island	3,561	0.7%
Texas	57,820	11.8%
Washington	189,231	38.7%
Wisconsin	17,863	3.7%

Application Request Type. This table breaks down the type of ballot request.

Application Request Type							
	n=	FPCA	State Application	FWAB[40]	NVRA[41]	Informal Request[42]	Untracked
Respondents	489,291	39.8%	43.2%	0.1%	0.0%	0.9%	16.2%
Jurisdiction							
Boone (MO)	522	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Brevard (FL)	4,373	0.7%	0.1%	9.2%	0.0%	63.4%	0.0%
Colorado	46,833	20.5%	62.3%	0.2%	0.0%	0.0%	17.1%
Georgia	23,975	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Ingham (MI)	986	80.6%	17.1%	2.1%	0.0%	0.0%	0.0%
Kentucky	4,608	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Los Angeles (CA)	37,246	28.8%	71.7%	0.0%	0.0%	0.0%	0.0%
Massachusetts	23,546	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Nebraska	2,701	92.4%	4.1%	3.5%	0.0%	0.0%	0.0%
New Mexico	6,807	0.0%	0.0%	0.0%	0.0%	0.0%	99.7%
New York	62,195	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Okaloosa (FL)	7,024	23.3%	53.8%	1.0%	0.0%	21.9%	0.0%
Rhode Island	3,561	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Texas	57,820	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Washington	189,231	20.2%	79.8%	0.0%	0.0%	0.0%	0.0%
Wisconsin	17,863	28.8%	0.0%	0.6%	0.0%	0.0%	70.6%
Voter Type							
Uniformed Service members	143,869	9.1%	74.5%	0.2%	0.0%	2.2%	14.0%
Overseas Citizen	278,377	42.5%	37.2%	0.1%	0.0%	0.4%	19.8%

[40] In some states, the Federal Write-In Absentee Ballots (FWAB) can simultaneously be used both as a form of registration and for ballot transmission.
[41] NVRA refers to the National Voter Registration Act, which established a National Voter Registration Form (NVRF).
[42] Informal requests refer to ballots requested through less formal processes, such as letter or phone call.

Application Request Method. This table breaks down the method by which the application was sent.

Application Request Method									
	n=	Mail	Online	Email	Fax	In-Person	Phone	Other	Untracked
Respondents	489,291	19.9%	34.5%	3.3%	0.0%	3.6%	0.3%	0.3%	38.1%
Jurisdiction									
Boone (MO)	522	6.3%	41.4%	49.8%	0.4%	1.9%	0.0%	0.2%	0.0%
Brevard (FL)	4,373	4.2%	49.0%	2.3%	0.0%	2.0%	10.3%	32.2%	0.0%
Colorado	46,833	24.7%	23.2%	17.7%	0.2%	17.1%	0.0%	0.0%	17.1%
Georgia	23,975	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Ingham (MI)	986	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Kentucky	4,608	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Los Angeles (CA)	37,246	64.4%	35.3%	0.1%	0.0%	0.2%	0.0%	0.0%	0.0%
Massachusetts	23,546	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Nebraska	2,701	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
New Mexico	6,807	10.3%	29.5%	58.7%	0.2%	1.2%	0.0%	0.1%	0.0%
New York	62,195	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Okaloosa (FL)	7,024	47.1%	31.0%	2.8%	0.1%	1.7%	17.3%	0.0%	0.0%
Rhode Island	3,561	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Texas	57,820	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Washington	189,231	29.9%	66.4%	0.0%	0.0%	3.7%	0.0%	0.0%	0.0%
Wisconsin	17,863	5.2%	44.6%	17.9%	0.1%	11.9%	0.0%	0.0%	20.5%
Voter Type									
Uniformed Service members	143,793	23.9%	56.7%	1.2%	0.0%	6.4%	1.0%	0.5%	10.3%
Overseas Citizen	278,202	22.6%	29.3%	5.1%	0.0%	2.9%	0.1%	0.3%	39.6%

Application Request Year. This table breaks down the year the application for an absentee ballot was submitted.

Application Request Year					
	n=	2024	2023	2022	Pre-2022
Respondents	484,364	61.3%	4.5%	3.8%	30.3%
Jurisdiction					
Boone (MO)	521	97.9%	2.1%	0.0%	0.0%
Brevard (FL)	4,373	86.6%	13.4%	0.1%	0.0%
Colorado	46,789	33.8%	3.0%	5.2%	58.0%
Georgia	23,967	99.7%	0.3%	0.0%	0.0%
Ingham (MI)	983	97.2%	2.8%	0.0%	0.0%
Kentucky	4,607	99.7%	0.3%	0.0%	0.0%
Los Angeles (CA)	37,246	28.4%	2.6%	5.3%	63.6%
Massachusetts	23,543	99.3%	0.1%	0.4%	0.2%
Nebraska	2,694	99.9%	0.1%	0.0%	0.0%
New Mexico	6,804	99.0%	0.9%	0.0%	0.0%
New York	62,195	81.4%	9.7%	3.1%	5.8%
Okaloosa (FL)	6,986	86.9%	13.1%	0.0%	0.0%
Rhode Island	3,561	100.0%	0.0%	0.0%	0.0%
Texas	57,788	99.9%	0.0%	0.0%	0.0%
Washington	184,450	37.1%	6.3%	6.6%	50.1%
Wisconsin	17,857	98.9%	0.2%	0.3%	0.7%
Voter Type					
Uniformed Service members	140,286	46.1%	7.6%	5.5%	40.7%
Overseas Citizen	276,821	59.9%	3.9%	3.8%	32.4%

Application Request Status. This table breaks down the status of the application requests for absentee ballots.

Application Request Status					
	n=	Accepted	Pending	Rejected	Canceled
Respondents	499,647	97.7%	2.6%	0.1%	0.3%
Jurisdiction					
Boone (MO)	522	100.0%	0.0%	0.0%	0.0%
Brevard (FL)	4,373	99.2%	0.0%	0.0%	0.8%
Colorado	46,851	100.0%	0.0%	0.0%	0.0%
Georgia	24,485	97.8%	0.3%	1.9%	0.0%
Ingham (MI)	986	99.9%	0.0%	0.1%	0.0%
Kentucky	4,857	94.8%	0.0%	0.0%	11.5%
Los Angeles (CA)	38,158	96.2%	1.6%	0.0%	2.2%
Massachusetts	23,546	100.0%	0.0%	0.0%	0.0%
Nebraska	2,717	99.4%	0.0%	0.6%	0.0%
New Mexico	6,807	99.4%	0.0%	0.6%	0.0%
New York	63,611	96.7%	3.3%	0.0%	0.0%
Okaloosa (FL)	7,024	100.0%	0.0%	0.0%	0.0%
Rhode Island	3,566	99.9%	0.0%	0.1%	0.0%
Texas	65,050	88.9%	15.8%	0.0%	0.0%
Washington	189,231	100.0%	0.0%	0.0%	0.0%
Wisconsin	17,863	100.0%	0.0%	0.0%	0.0%
Voter Type					
Uniformed Service members	144,269	99.5%	0.2%	0.1%	0.1%
Overseas Citizen	280,536	98.8%	0.8%	0.1%	0.2%

Application Request Rejection Type. This table breaks down the reason given for why an application request was rejected.

Application Request Rejection Type						
	n=	Invalid	Mismatch Voter Signature	Missing Voter Signature	Other	Untracked
Respondents	13,599	2.0%	0.0%	0.0%	5.0%	93.0%
Jurisdiction						
Boone (MO)	0	N/A	N/A	N/A	N/A	N/A
Brevard (FL)	0	N/A	N/A	N/A	N/A	N/A
Colorado	18	0.0%	0.0%	0.0%	0.0%	100.0%
Georgia	459	0.0%	0.0%	0.0%	0.0%	100.0%
Ingham (MI)	0	N/A	N/A	N/A	N/A	N/A
Kentucky	508	0.0%	0.0%	0.0%	0.0%	100.0%
Los Angeles (CA)	934	28.3%	0.0%	0.0%	71.7%	0.0%
Massachusetts	0	N/A	N/A	N/A	N/A	N/A
Nebraska	15	13.3%	0.0%	0.0%	86.7%	0.0%
New Mexico	0	N/A	N/A	N/A	N/A	N/A
New York	1,416	0.0%	0.0%	0.0%	0.0%	100.0%
Okaloosa (FL)	0	N/A	N/A	N/A	N/A	N/A
Rhode Island	2	0.0%	50.0%	0.0%	50.0%	0.0%
Texas	10,247	0.0%	0.0%	0.0%	0.0%	100.0%
Washington	0	N/A	N/A	N/A	N/A	N/A
Wisconsin	0	N/A	N/A	N/A	N/A	N/A
Voter Type						
Uniformed Service members	465	12.7%	0.0%	0.0%	30.1%	57.2%
Overseas Citizen	2,317	7.4%	0.0%	0.0%	22.4%	70.2%

Ballot Transmission Date. This table breaks down the date when an absentee ballot was transmitted by the jurisdiction to a voter.

	Ballot Transmission Date					
	n=	45 Days or More Before Election Day	30-44 Days Before Election Day	15-29 Days Before Election Day	0-14 Days Before Election Day	After Election Day
Respondents	489,942	0.0%	62.4%	24.2%	13.3%	0.0%
Jurisdiction						
Boone (MO)	522	17.6%	44.6%	30.3%	7.5%	0.0%
Brevard (FL)	4,298	0.0%	60.2%	26.8%	13.0%	0.0%
Colorado	51,447	0.0%	75.3%	15.0%	9.7%	0.0%
Georgia	24,005	0.0%	53.2%	35.2%	11.5%	0.1%
Ingham (MI)	964	0.0%	66.0%	26.8%	7.3%	0.0%
Kentucky	4,611	0.0%	60.7%	31.9%	7.5%	0.0%
Los Angeles (CA)	39,057	0.0%	84.1%	12.1%	3.8%	0.1%
Massachusetts	23,546	0.0%	58.5%	28.5%	13.0%	0.0%
Nebraska	2,623	0.3%	61.4%	31.4%	6.9%	0.0%
New Mexico	6,760	0.4%	60.2%	30.3%	9.0%	0.0%
New York	60,553	0.0%	64.3%	26.6%	9.2%	0.0%
Okaloosa (FL)	6,946	0.0%	61.1%	26.9%	11.8%	0.1%
Rhode Island	3,555	0.0%	58.8%	34.3%	6.9%	0.0%
Texas	57,843	0.0%	56.3%	34.1%	9.6%	0.0%
Washington	189,231	0.0%	58.7%	22.2%	19.1%	0.0%
Wisconsin	13,981	0.2%	49.3%	31.2%	19.3%	0.0%
Voter Type						
Uniformed Service members	143,081	0.0%	62.8%	17.6%	19.5%	0.0%
Overseas Citizen	279,511	0.0%	63.8%	25.2%	11.0%	0.0%

Ballot Transmission Method. This table breaks down the method used to send the ballot to the voter.

Ballot Transmission Method								
	n=	Mail	Email	Online	Fax	In-person	Other	Untracked
Respondents	490,955	34.3%	41.1%	15.6%	0.0%	1.7%	0.1%	7.3%
Jurisdiction								
Boone (MO)	522	2.5%	56.3%	41.2%	0.0%	0.0%	0.0%	0.0%
Brevard (FL)	4,373	48.2%	49.7%	0.0%	0.0%	1.2%	0.8%	0.0%
Colorado	51,563	25.7%	72.2%	0.0%	0.0%	1.8%	0.4%	0.0%
Georgia	24,006	7.3%	0.0%	92.7%	0.0%	0.0%	0.0%	0.0%
Ingham (MI)	985	30.2%	69.4%	0.0%	0.0%	0.4%	0.0%	0.0%
Kentucky	4,626	12.0%	0.0%	88.0%	0.0%	0.0%	0.0%	0.0%
Los Angeles (CA)	37,494	98.4%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%
Massachusetts	23,546	5.2%	94.5%	0.0%	0.1%	0.0%	0.2%	0.0%
Nebraska	2,704	13.0%	84.7%	0.0%	0.0%	2.3%	0.0%	0.0%
New Mexico	6,730	11.9%	88.1%	0.0%	0.0%	0.0%	0.0%	0.0%
New York	62,064	15.8%	84.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Okaloosa (FL)	7,018	62.3%	35.5%	0.4%	0.0%	1.8%	0.0%	0.0%
Rhode Island	3,555	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Texas	57,820	37.2%	0.5%	0.0%	0.0%	0.0%	0.0%	62.3%
Washington	189,231	36.4%	35.6%	25.6%	0.0%	2.4%	0.0%	0.0%
Wisconsin	14,718	21.6%	56.8%	8.9%	0.0%	12.7%	0.0%	0.0%
Voter Type								
Uniformed Service members	143,506	52.0%	25.9%	17.4%	0.0%	4.6%	0.1%	0.0%
Overseas Citizen	280,181	23.9%	58.6%	16.9%	0.0%	0.5%	0.1%	0.0%

Ballot Type. This table breaks down the type of ballot transferred to the voter.

Ballot Type						
	n=	Absentee	FWAB	Full	Federal	Untracked
Respondents	484,307	0.3%	15.1%	1.9%	17.6%	65.0%
Jurisdiction						
Boone (MO)	522	0.0%	0.0%	0.0%	0.0%	100.0%
Brevard (FL)	4,373	0.0%	100.0%	0.0%	0.0%	0.0%
Colorado	47,003	0.4%	99.6%	0.0%	0.0%	0.0%
Georgia	23,931	0.0%	0.0%	0.0%	100.0%	0.0%
Ingham (MI)	986	0.0%	0.0%	0.0%	100.0%	0.0%
Kentucky	4,607	0.0%	0.0%	0.0%	0.0%	100.0%
Los Angeles (CA)	36,926	0.0%	0.0%	0.0%	0.0%	100.0%
Massachusetts	23,546	2.1%	0.0%	0.0%	0.0%	97.9%
Nebraska	2,701	0.0%	100.0%	0.0%	0.0%	0.0%
New Mexico	6,802	0.0%	0.0%	0.0%	0.0%	100.0%
New York	60,553	0.0%	0.0%	0.0%	100.0%	0.0%
Okaloosa (FL)	7,018	0.0%	0.0%	0.0%	0.0%	100.0%
Rhode Island	3,555	0.0%	55.3%	44.7%	0.0%	0.0%
Texas	57,822	0.0%	15.0%	2.7%	0.0%	82.3%
Washington	189,231	0.5%	0.0%	0.0%	0.0%	99.5%
Wisconsin	14,731	0.3%	58.0%	41.8%	0.0%	0.0%
Voter Type						
Uniformed Service members	141,752	0.4%	15.6%	0.0%	7.5%	76.6%
Overseas Citizen	275,254	0.4%	14.7%	2.2%	27.2%	55.5%

Ballot Return Date. This table breaks down the date when a ballot was returned.

	Ballot Return Date						
	n=	30+ Days Before Election Day	15-29 Days Before Election Day	1-14 Days Before Election Day	Election Day	1-7 Days After Election Day	8 Days or More After Election Day
Respondents	273,300	10.6%	28.2%	43.0%	8.1%	8.9%	1.2%
Jurisdiction							
Boone (MO)	367	7.1%	23.7%	57.5%	1.6%	10.1%	0.0%
Brevard (FL)	3,634	8.2%	33.6%	48.1%	5.5%	3.5%	1.0%
Colorado	33,114	17.7%	24.7%	43.0%	14.4%	0.1%	0.1%
Georgia	18,870	8.9%	29.4%	46.4%	7.4%	6.8%	1.0%
Ingham (MI)	868	11.9%	35.7%	38.5%	5.9%	7.0%	1.0%
Kentucky	3,010	8.5%	35.1%	47.9%	6.1%	1.6%	0.7%
Los Angeles (CA)	20,876	0.0%	34.5%	40.9%	5.3%	16.2%	3.2%
Massachusetts	20,703	27.1%	27.1%	39.3%	6.0%	0.4%	0.1%
Nebraska	2,371	10.5%	36.7%	43.9%	6.9%	1.6%	0.4%
New Mexico	5,836	19.7%	37.6%	37.7%	3.6%	1.4%	0.0%
New York	20,609	11.0%	39.5%	34.9%	3.1%	9.9%	1.6%
Okaloosa (FL)	5,896	15.7%	24.0%	43.9%	11.9%	4.0%	0.5%
Rhode Island	3,382	0.1%	54.3%	41.2%	3.4%	1.0%	0.0%
Texas	43,331	5.4%	26.4%	45.7%	6.4%	15.0%	1.1%
Washington	75,812	8.9%	22.7%	42.7%	10.2%	13.6%	1.8%
Wisconsin	14,621	10.1%	32.8%	51.5%	5.4%	0.2%	0.1%
Voter Type							
Uniformed Service members	72,569	6.2%	20.3%	46.6%	12.9%	12.5%	1.4%
Overseas Citizen	150,017	14.6%	31.9%	40.4%	6.4%	5.6%	1.1%

Ballot Return Method. This table breaks down the method by which an absentee ballot was returned.

Ballot Return Method								
	n=	Mail	Email	Online	Fax	In-Person	Other	Untracked
Respondents	281,561	45.7%	12.7%	9.0%	2.1%	1.0%	8.6%	20.9%
Jurisdiction								
Boone (MO)	367	89.6%	4.9%	0.8%	0.0%	4.6%	0.0%	0.0%
Brevard (FL)	4,332	73.9%	0.0%	0.0%	10.6%	0.0%	15.4%	0.0%
Colorado	33,144	20.3%	0.0%	76.2%	0.1%	0.5%	2.8%	0.0%
Georgia	19,138	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Ingham (MI)	965	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Kentucky	3,017	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Los Angeles (CA)	21,346	70.7%	0.0%	0.0%	22.2%	2.7%	4.3%	0.0%
Massachusetts	23,546	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Nebraska	2,364	56.7%	39.7%	0.0%	0.0%	3.2%	0.4%	0.0%
New Mexico	6,730	11.9%	88.1%	0.0%	0.0%	0.0%	0.0%	0.0%
New York	21,429	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Okaloosa (FL)	5,975	94.2%	0.0%	0.0%	5.0%	0.8%	0.0%	0.0%
Rhode Island	3,391	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Texas	44,136	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Washington	77,069	33.8%	37.6%	0.0%	0.4%	0.2%	28.1%	0.0%
Wisconsin	14,612	0.0%	0.0%	0.0%	0.0%	12.7%	0.0%	87.3%
Voter Type								
Uniformed Service members	74,194	42.6%	8.8%	4.7%	0.7%	25.3%	15.0%	15.0%
Overseas Citizen	155,874	31.8%	18.8%	14.0%	3.1%	0.5%	3.4%	28.4%

Ballot Rejection Type. This table describes the reasons why a ballot was rejected.

Ballot Rejection Type								
	n=	Not Timely	Mismatch Voter Signature	Missing Voting Signature	Postmark	Rejected	Voter Moved	Other
Respondents	5,053	28.7%	28.6%	12.6%	0.0%	0.0%	0.1%	27.1%
Jurisdiction								
Boone (MO)	6	66.7%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%
Brevard (FL)	143	69.2%	19.6%	0.0%	0.0%	0.0%	0.0%	11.2%
Colorado	988	5.0%	71.8%	8.3%	0.0%	0.0%	0.0%	15.0%
Georgia	642	83.6%	0.9%	2.8%	0.0%	0.0%	0.0%	12.6%
Ingham (MI)	16	87.5%	0.0%	0.0%	0.0%	0.0%	12.5%	0.0%
Kentucky	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Los Angeles (CA)	537	87.0%	3.0%	4.1%	0.0%	0.2%	0.0%	5.8%
Massachusetts	130	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Nebraska	57	82.5%	1.8%	5.3%	0.0%	0.0%	0.0%	10.5%
New Mexico	14	42.9%	0.0%	28.6%	0.0%	0.0%	0.0%	28.6%
New York	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Okaloosa (FL)	244	75.8%	6.1%	11.5%	0.0%	0.0%	1.2%	5.3%
Rhode Island	2	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Texas	19	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Washington	2,091	0.0%	31.9%	23.1%	0.9%	0.0%	0.0%	44.1%
Wisconsin	164	24.4%	0.0%	0.0%	0.0%	0.0%	0.6%	75.0%
Voter Type								
Uniformed Service members	2,094	26.6%	31.5%	13.7%	0.3%	0.5%	0.0%	27.3%
Overseas Citizen	2,912	30.1%	26.9%	12.1%	0.4%	4.2%	0.1%	26.3%

Voter Type. This table breaks down absentee ballot requesters by *UOCAVA* voter type.

	Voter Type		
	n=	Uniformed Service members	Overseas Citizens
Respondents	421,980	34.1%	65.9%
Jurisdiction			
Boone (MO)	522	52.7%	47.3%
Brevard (FL)	4,372	57.0%	43.0%
Colorado	46,833	27.1%	72.9%
Georgia	23,975	32.4%	67.6%
Ingham (MI)	986	12.5%	87.5%
Kentucky	0	N/A	N/A
Los Angeles (CA)	36,149	15.1%	84.9%
Massachusetts	23,546	2.9%	97.1%
Nebraska	2,693	26.1%	73.9%
New Mexico	6,676	29.0%	71.0%
New York	62,195	5.0%	95.0%
Okaloosa (FL)	7,018	88.7%	11.3%
Rhode Island	0	N/A	N/A
Texas	0	N/A	N/A
Washington	189,152	50.0%	50.0%
Wisconsin	17,863	44.0%	56.0%

Appendix B: 2024 Missingness by Variable

The nature of the ESB Data Standard data set makes it difficult to determine the level of missingness by variable. Compared to more traditional data sets, a field lacking information sometimes has a meaning other than being missing. For example, within this data set, no information in "Ballot Rejection Reason" means that a ballot was counted rather than rejected – i.e., the ballot was transmitted and returned.

To evaluate missingness while accounting for the complexities of this data set, we classified most of the variables into three categories: (1) General Variables and Ballot Request, (2) Ballot Transmission, and (3) Ballot Return. The first group, General Variables and Ballot Request, covers six variables for which all observations are expected to have information (e.g., Voter Type, Ballot Request Type, etc.), given all observations in this data set represent a voter that started the voting process by requesting a ballot. The second group, Ballot Transmission, covers the three variables related to transmission of blank ballots and assumes information in one field necessitates information being present in the other two (e.g., If a ballot transmission date is present, then there should be information on how it was transmitted, as well as what type of ballot was transmitted). Finally, the Ballot Return group covers the two variables associated with the returning of a ballot to the election office (i.e., return method and date). In this case, if there is information in one of the two variables, then it is expected there will be information in the other.

General Variables and Ballot Request: The missingness values in this table show the percentage of observations within a category (i.e., row) for which there is no information for that variable.

Missingness – General Variables and Ballot Request							
	n=	State Name	Voter Type	Ballot Request Type	Ballot Request Method	Ballot Request Date	Ballot Request Status
Respondents	489,291	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%
Jurisdiction							
Boone (MO)	522	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Brevard (FL)	4,373	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Colorado	46,833	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Georgia	23,975	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Ingham (MI)	986	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Kentucky	4,608	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%
Los Angeles (CA)	37,246	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Massachusetts	23,546	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nebraska	2,701	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%
New Mexico	6,807	0.0%	1.9%	0.0%	0.0%	1.4%	0.0%
New York	62,195	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Okaloosa (FL)	7,024	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Rhode Island	3,561	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Texas	57,820	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%
Washington	189,231	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wisconsin	17,863	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Ballot Transmission: The missingness values in this table show the percentage of observations within a category (i.e., row) for which there is no information for that variable when information was expected.

Missingness – Ballot Transmission				
	n=	Ballot Type	Ballot Transmission Method	Ballot Transmission Date
Respondents	485,308	0.3%	0.0%	0.5%
Jurisdiction				
Boone (MO)	522	0.0%	0.0%	0.0%
Brevard (FL)	4,332	0.0%	0.0%	0.8%
Colorado	46,821	0.0%	0.0%	0.0%
Georgia	23,931	0.0%	0.0%	0.0%
Ingham (MI)	965	0.0%	0.1%	0.1%
Kentucky	4,607	0.0%	0.0%	0.0%
Los Angeles (CA)	36,926	0.0%	0.0%	0.0%
Massachusetts	23,546	0.0%	0.0%	0.0%
Nebraska	2,606	0.0%	0.7%	0.0%
New Mexico	6,807	0.1%	1.1%	0.7%
New York	62,064	2.4%	0.0%	2.4%
Okaloosa (FL)	6,947	0.0%	0.0%	0.0%
Rhode Island	3,560	0.1%	0.1%	0.1%
Texas	57,820	0.0%	0.0%	0.0%
Washington	189,231	0.0%	0.0%	0.0%
Wisconsin	14,623	0.0%	0.0%	4.4%

Ballot Return: The missingness values in this table show the percentage of observations within a category (i.e., row) for which there is no information when information was expected.

Missingness – Ballot Return			
	n=	Ballot Return Method	Ballot Return Date
Respondents	278,174	0.0%	1.8%
Jurisdiction			
Boone (MO)	367	0.0%	0.0%
Brevard (FL)	4,303	0.0%	15.5%
Colorado	33,089	0.0%	0.0%
Georgia	18,794	0.0%	0.0%
Ingham (MI)	961	0.0%	9.7%
Kentucky	3,010	0.0%	0.0%
Los Angeles (CA)	20,870	0.0%	0.0%
Massachusetts	23,537	0.0%	12.0%
Nebraska	2,361	0.6%	0.0%
New Mexico	6,807	1.1%	14.3%
New York	20,609	0.0%	0.0%
Okaloosa (FL)	5,944	0.0%	0.8%
Rhode Island	3,382	0.0%	0.0%
Texas	43,331	0.0%	0.0%
Washington	76,197	0.0%	0.5%
Wisconsin	14,612	0.1%	0.0%

Appendix C: EAVS and ESB Item Alignment Comparison

This appendix shows EAVS item-by-item comparisons with ESB-produced EAVS items. All 80 items from Section B of the EAVS – except for B4a: "Total FPCAs rejected because they were received late" – were replicated using ESB data and compared with the results provided by the states and jurisdictions in the 2024 EAVS. The comparison uses the level of alignment between items, calculated as follows:

$$Level\ of\ Alignment = \frac{ESB\ produced\ metric}{EAVS\ result} \times 100$$

One hundred percent alignment means both approaches yield the same result. Values below 100 percent mean the ESB-produced metric underestimates the EAVS result, and values above 100 percent mean the ESB-produced metric overestimates the EAVS result.

Two transformations were conducted to improve the interpretation of results. Firstly, if the ESB-produced metric and the EAVS result are both zeroes or missing, then the level of alignment is coded as 100 percent, indicating perfect alignment.

Conversely, 0 percent alignment indicates an item was not available in either EAVS or ESB, due to missing or inapplicable information. (e.g., If "Voter Type" is missing from ESB, then most EAVS "b" and "c" subitems referring to Uniformed Service members or overseas citizens, respectively, cannot be calculated.)

FVAP RESEARCH NOTE

Data Standardization and the 2024 General Election

ESB and EAVS Item Alignment B1 to B3: Compares alignment in items covering the number of registered *UOCAVA* voters (B1), FPCAs received (B2), and FPCAs rejected (B3). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B1 to B3									
	B1a	B1b	B1c	B2a	B2b	B2c	B3a	B3b	B3c
Boone (MO)	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Brevard (FL)	62.6%	53.1%	82.0%	73.9%	81.5%	68.4%	100.0%	100.0%	100.0%
Colorado	74.6%	59.8%	82.2%	83.5%	80.7%	83.8%	100.0%	100.0%	100.0%
Georgia	99.5%	99.4%	99.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ingham (MI)	98.0%	97.6%	98.1%	103.4%	95.5%	104.1%	100.0%	100.0%	100.0%
Kentucky	76.5%	0.0%	0.0%	87.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Los Angeles (CA)	95.0%	88.3%	93.0%	95.1%	76.8%	89.3%	0.0%	0.0%	0.0%
Massachusetts	85.3%	83.9%	85.3%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Nebraska	99.0%	99.2%	98.6%	95.0%	91.6%	96.2%	0.0%	0.0%	0.0%
New Mexico	102.5%	100.3%	100.6%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
New York	96.3%	92.5%	96.5%	165.5%	135.8%	167.5%	100.0%	100.0%	100.0%
Okaloosa (FL)	43.9%	42.5%	60.0%	98.7%	98.7%	98.5%	0.0%	0.0%	0.0%
Rhode Island	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%
Texas	87.8%	0.0%	0.0%	83.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Washington	152.1%	131.5%	180.2%	1017.4%	937.5%	1029.3%	0.0%	0.0%	0.0%
Wisconsin	66.7%	44.8%	108.6%	97.8%	96.4%	97.9%	100.0%	100.0%	100.0%

ESB and EAVS Item Alignment B5 to B6: Compares alignment in items covering the total number of ballots transmitted to *UOCAVA* voters (B5) and the total number of ballots transmitted to *UOCAVA* voters by postal mail (B6). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B5 to B6						
	B5a	B5b	B5c	B6a	B6b	B6c
Boone (MO)	98.9%	97.9%	100.0%	108.3%	0.0%	0.0%
Brevard (FL)	91.0%	93.7%	87.6%	88.3%	92.9%	75.4%
Colorado	84.4%	83.2%	84.9%	88.5%	86.3%	90.1%
Georgia	99.6%	99.5%	99.6%	99.9%	99.4%	101.0%
Ingham (MI)	103.2%	100.0%	103.7%	92.0%	87.0%	93.4%
Kentucky	99.4%	0.0%	0.0%	99.8%	0.0%	0.0%
Los Angeles (CA)	95.3%	92.7%	92.4%	95.2%	92.7%	92.3%
Massachusetts	85.3%	83.9%	85.3%	85.2%	73.9%	86.8%
Nebraska	99.0%	99.1%	98.6%	99.7%	100.0%	98.5%
New Mexico	102.3%	100.1%	100.4%	106.0%	99.4%	100.4%
New York	76.9%	76.4%	77.0%	95.4%	96.1%	95.3%
Okaloosa (FL)	93.3%	93.1%	93.9%	92.8%	92.7%	91.5%
Rhode Island	65.8%	0.0%	0.0%	99.8%	0.0%	0.0%
Texas	82.8%	0.0%	0.0%	124.3%	0.0%	0.0%
Washington	139.3%	123.5%	159.4%	108.7%	101.6%	138.8%
Wisconsin	90.9%	99.8%	85.4%	84.1%	84.3%	83.1%

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ESB and EAVS Item Alignment B7 to B8: Compares alignment in items covering the total number of ballots transmitted to *UOCAVA* voters by email (B7) and the total number of ballots transmitted to *UOCAVA* voters by fax (B8). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B7 to B8

	B7a	B7b	B7c	B8a	B8b	B8c
Boone (MO)	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Brevard (FL)	93.8%	94.1%	93.7%	100.0%	100.0%	100.0%
Colorado	94.5%	95.5%	94.2%	100.0%	100.0%	100.0%
Georgia	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ingham (MI)	108.5%	114.9%	108.0%	100.0%	100.0%	100.0%
Kentucky	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Los Angeles (CA)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Massachusetts	0.0%	0.0%	0.0%	75.0%	100.0%	72.7%
Nebraska	99.8%	100.0%	99.3%	100.0%	100.0%	100.0%
New Mexico	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
New York	74.4%	68.3%	74.7%	100.0%	100.0%	100.0%
Okaloosa (FL)	94.7%	94.4%	95.6%	100.0%	100.0%	100.0%
Rhode Island	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Texas	0.6%	0.0%	0.0%	100.0%	100.0%	100.0%
Washington	96.7%	90.0%	100.1%	100.0%	100.0%	100.0%
Wisconsin	78.4%	58.3%	83.5%	100.0%	100.0%	100.0%

ESB and EAVS Item Alignment B9 to B10: Compares alignment in items covering the total number of ballots transmitted to *UOCAVA* voters via an online ballot delivery portal (B9) and the total number of ballots transmitted to *UOCAVA* voters by a method other than postal mail, email, fax, or online portal (B10). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B9 to B10

	B9a	B9b	B9c	B10a	B10b	B10c
Boone (MO)	99.5%	0.0%	0.0%	0.0%	100.0%	100.0%
Brevard (FL)	0.0%	0.0%	100.0%	88.7%	130.4%	56.7%
Colorado	100.0%	100.0%	100.0%	107.6%	105.2%	110.4%
Georgia	99.9%	99.9%	99.9%	100.0%	100.0%	100.0%
Ingham (MI)	100.0%	100.0%	100.0%	133.3%	200.0%	100.0%
Kentucky	99.8%	0.0%	0.0%	100.0%	100.0%	100.0%
Los Angeles (CA)	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
Massachusetts	0.0%	0.0%	0.0%	81.0%	66.7%	82.5%
Nebraska	100.0%	100.0%	100.0%	76.9%	86.2%	71.4%
New Mexico	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
New York	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Okaloosa (FL)	100.0%	100.0%	100.0%	72.8%	76.1%	57.1%
Rhode Island	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Texas	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Washington	4998.5%	4786.9%	5124.9%	0.0%	0.0%	0.0%
Wisconsin	74.8%	64.7%	89.0%	93450.0%	86300.0%	0.0%

ESB and EAVS Item Alignment B11 to B12: Compares alignment in items covering the total number of ballots returned by *UOCAVA* voters (B11) and the total number of ballots returned by *UOCAVA* voters by postal mail (B12). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B11 to B12						
	B11a	B11b	B11c	B12a	B12b	B12c
Boone (MO)	99.7%	99.5%	100.0%	95.1%	0.0%	0.0%
Brevard (FL)	117.5%	115.5%	120.1%	99.1%	99.8%	97.7%
Colorado	100.0%	100.2%	100.0%	99.9%	100.3%	99.6%
Georgia	102.5%	104.8%	101.5%	0.0%	0.0%	0.0%
Ingham (MI)	109.5%	117.0%	108.5%	0.0%	0.0%	0.0%
Kentucky	99.7%	0.0%	0.0%	99.7%	0.0%	0.0%
Los Angeles (CA)	95.7%	98.7%	91.1%	93.0%	90.2%	91.5%
Massachusetts	97.3%	106.5%	97.1%	0.0%	0.0%	0.0%
Nebraska	100.0%	100.5%	99.4%	100.2%	100.5%	99.7%
New Mexico	117.4%	114.5%	115.3%	118.3%	112.4%	109.5%
New York	36.9%	63.3%	35.5%	36.9%	62.9%	35.5%
Okaloosa (FL)	99.2%	99.2%	97.9%	98.6%	98.5%	97.8%
Rhode Island	99.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Texas	81.3%	0.0%	0.0%	82.1%	0.0%	0.0%
Washington	129.5%	119.7%	141.4%	116.8%	113.1%	123.8%
Wisconsin	109.6%	132.9%	97.1%	0.0%	0.0%	0.0%

ESB and EAVS Item Alignment B13 to B14: Compares alignment in items covering the total number of ballots returned by *UOCAVA* voters by email (B13) and the total number of ballots returned by *UOCAVA* voters by fax (B14). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B13 to B14						
	B13a	B13b	B13c	B14a	B14b	B14c
Boone (MO)	94.7%	0.0%	0.0%	100.0%	100.0%	100.0%
Brevard (FL)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Colorado	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Georgia	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ingham (MI)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Kentucky	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Los Angeles (CA)	100.0%	100.0%	100.0%	92.6%	86.6%	82.6%
Massachusetts	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
Nebraska	100.2%	100.7%	99.6%	100.0%	100.0%	100.0%
New Mexico	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
New York	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Okaloosa (FL)	100.0%	100.0%	100.0%	94.9%	93.3%	95.7%
Rhode Island	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Texas	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Washington	152.6%	170.1%	149.4%	150.3%	143.8%	151.7%
Wisconsin	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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ESB and EAVS Item Alignment B15 to B16: Compares alignment in items covering the total number of ballots returned by *UOCAVA* voters via online ballot delivery portal (B15) and the total number of ballots returned by *UOCAVA* voters by a method other than postal mail, email, fax, or online portal (B16). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B15 to B16						
	B15a	B15b	B15c	B16a	B16b	B16c
Boone (MO)	100.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Brevard (FL)	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
Colorado	0.0%	0.0%	0.0%	82.4%	91.0%	73.9%
Georgia	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ingham (MI)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Kentucky	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Los Angeles (CA)	100.0%	100.0%	100.0%	94.8%	90.2%	91.5%
Massachusetts	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nebraska	100.0%	100.0%	100.0%	11.2%	6.1%	14.3%
New Mexico	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
New York	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Okaloosa (FL)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rhode Island	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Texas	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
Washington	100.0%	100.0%	100.0%	119.3%	117.1%	129.9%
Wisconsin	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

ESB and EAVS Item Alignment B17: Compares alignment in items covering the total number of ballots returned undeliverable (B17a), ballots returned by postal mail as undeliverable (17b), ballots returned undeliverable (or bounce-back) by email (17c), ballots returned by fax as undeliverable (17d), ballots returned undeliverable via online ballot delivery portal (17e), and ballots that were returned undeliverable by all modes other than postal mail, email, fax, or online portal (17f).

ESB-EAVS Item Alignment – B17						
	B17a	B17b	B17c	B17d	B17e	B17f
Boone (MO)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Brevard (FL)	51.0%	61.0%	0.0%	100.0%	100.0%	100.0%
Colorado	99.3%	99.3%	100.0%	100.0%	100.0%	100.0%
Georgia	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Ingham (MI)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Kentucky	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Los Angeles (CA)	100.0%	28.0%	100.0%	100.0%	100.0%	0.0%
Massachusetts	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%
Nebraska	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
New Mexico	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New York	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%
Okaloosa (FL)	12.6%	13.9%	0.0%	100.0%	100.0%	100.0%
Rhode Island	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%
Texas	3.4%	3.5%	0.0%	100.0%	100.0%	100.0%
Washington	51.4%	51.6%	0.0%	100.0%	100.0%	100.0%
Wisconsin	392.9%	0.0%	0.0%	100.0%	100.0%	100.0%

FVAP RESEARCH NOTE

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ESB and EAVS Item Alignment B18 to B19: Compares alignment in items covering the total number of UOCAVA ballots counted (B18) and the total number of *UOCAVA* ballots counted that were returned by postal mail (B19). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B18 to B19						
	B18a	B18b	B18c	B19a	B19b	B19c
Boone (MO)	99.7%	99.5%	100.0%	0.0%	0.0%	0.0%
Brevard (FL)	118.7%	116.1%	122.1%	99.6%	99.4%	99.8%
Colorado	100.2%	100.5%	100.2%	100.4%	100.4%	100.5%
Georgia	103.7%	105.5%	102.8%	0.0%	0.0%	0.0%
Ingham (MI)	110.1%	117.3%	109.2%	0.0%	0.0%	0.0%
Kentucky	0.0%	100.0%	100.0%	0.0%	100.0%	100.0%
Los Angeles (CA)	98.5%	101.6%	93.8%	96.6%	93.0%	95.2%
Massachusetts	97.4%	106.9%	97.1%	0.0%	0.0%	0.0%
Nebraska	100.1%	100.6%	99.5%	100.4%	100.5%	99.9%
New Mexico	117.8%	115.2%	115.7%	121.0%	114.3%	112.8%
New York	41.4%	69.0%	39.9%	41.4%	68.8%	39.9%
Okaloosa (FL)	99.9%	99.7%	101.1%	99.2%	98.9%	100.7%
Rhode Island	99.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Texas	84.9%	0.0%	0.0%	85.8%	0.0%	0.0%
Washington	128.0%	118.3%	139.8%	115.7%	112.1%	122.7%
Wisconsin	114.1%	138.3%	101.2%	0.0%	0.0%	0.0%

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ESB and EAVS Item Alignment B20 to B21: Compares alignment in items covering the total number of counted *UOCAVA* ballots that were returned by email (B20) and the total number of counted *UOCAVA* ballots that were returned by fax (B21). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B20 to B21

	B20a	B20b	B20c	B21a	B21b	B21c
Boone (MO)	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Brevard (FL)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Colorado	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Georgia	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ingham (MI)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Kentucky	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Los Angeles (CA)	100.0%	100.0%	100.0%	92.7%	86.6%	82.7%
Massachusetts	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
Nebraska	100.2%	100.7%	99.6%	100.0%	100.0%	100.0%
New Mexico	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
New York	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Okaloosa (FL)	100.0%	100.0%	100.0%	98.0%	95.1%	99.5%
Rhode Island	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Texas	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Washington	149.8%	160.4%	147.9%	149.4%	143.8%	150.7%
Wisconsin	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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ESB and EAVS Item Alignment B22 to B23: Compares alignment in items covering the total number of counted *UOCAVA* ballots that were returned by online portal (B22) and the total number of counted *UOCAVA* ballots that were returned by a method other than postal mail, email, fax, or online portal (B23). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B22 to B23						
	B22a	B22b	B22c	B23a	B23b	B23c
Boone (MO)	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Brevard (FL)	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
Colorado	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Georgia	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ingham (MI)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Kentucky	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Los Angeles (CA)	100.0%	100.0%	100.0%	96.2%	94.1%	92.2%
Massachusetts	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nebraska	100.0%	100.0%	100.0%	11.4%	6.3%	14.3%
New Mexico	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
New York	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Okaloosa (FL)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Rhode Island	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Texas	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
Washington	100.0%	100.0%	100.0%	119.0%	116.7%	130.3%
Wisconsin	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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ESB and EAVS Item Alignment B24 to B25: Compares alignment in items covering the total number of rejected *UOCAVA* ballots (B24) and the total number of *UOCAVA* ballots rejected because they missed the deadline (B25). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B24 to B25

	B24a	B24b	B24c	B25a	B25b	B25c
Boone (MO)	100.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Brevard (FL)	89.9%	105.7%	36.1%	86.1%	93.3%	10.0%
Colorado	97.4%	100.0%	96.1%	57.0%	91.4%	33.3%
Georgia	78.0%	86.7%	74.9%	74.7%	84.5%	71.2%
Ingham (MI)	80.0%	100.0%	77.8%	93.3%	200.0%	85.7%
Kentucky	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Los Angeles (CA)	46.4%	46.0%	44.3%	44.1%	48.3%	42.2%
Massachusetts	90.9%	81.8%	91.7%	0.0%	0.0%	0.0%
Nebraska	96.6%	100.0%	94.7%	95.9%	100.0%	93.8%
New Mexico	45.2%	23.1%	44.4%	42.9%	50.0%	40.0%
New York	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Okaloosa (FL)	84.1%	90.4%	27.6%	76.1%	83.6%	4.3%
Rhode Island	18.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Texas	1.4%	0.0%	0.0%	1.0%	0.0%	0.0%
Washington	218.5%	207.6%	230.2%	0.0%	0.0%	0.0%
Wisconsin	24.8%	31.0%	21.5%	7.4%	10.8%	5.7%

Data Standardization and the 2024 General Election

ESB and EAVS Item Alignment B26 to B28: Compares alignment in items covering the total number of *UOCAVA* ballots rejected because of a problem with the voter's signature (B26), the total number of *UOCAVA* ballots rejected because they lacked a postmark (B27), and the total number of *UOCAVA* ballots rejected for other reasons (B28). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B26 to B28

	B26a	B26b	B26c	B27a	B27b	B27c	B28a	B28b	B28c
Boone (MO)	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	100.0%
Brevard (FL)	100.0%	240.0%	22.2%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Colorado	91.0%	91.6%	101.4%	100.0%	100.0%	100.0%	100.7%	100.0%	100.9%
Georgia	26.1%	25.0%	106.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ingham (MI)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	40.0%	0.0%	50.0%
Kentucky	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Los Angeles (CA)	39.0%	71.4%	88.2%	100.0%	100.0%	100.0%	55.2%	17.6%	58.5%
Massachusetts	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	139.8%	112.5%	142.4%
Nebraska	25.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New Mexico	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	30.8%	0.0%	20.0%
New York	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Okaloosa (FL)	35.7%	36.1%	116.7%	100.0%	100.0%	100.0%	320.0%	320.0%	100.0%
Rhode Island	0.0%	100.0%	0.0%	100.0%	100.0%	100.0%	0.0%	100.0%	100.0%
Texas	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	3.3%	0.0%	0.0%
Washington	76.4%	83.6%	129.2%	0.0%	0.0%	0.0%	1589.7%	1162.2%	2338.1%
Wisconsin	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	234.0%	226.1%	240.0%

FVAP RESEARCH NOTE

Data Standardization and the 2024 General Election

ESB and EAVS Item Alignment B29 to B30: Compares alignment in items covering the total number of FWABs returned by *UOCAVA* voters (B29) and the total number of counted FWABs (B30). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B29 to B30						
	B29a	B29b	B29c	B30a	B30b	B30c
Boone (MO)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Brevard (FL)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Colorado	54.9%	65.0%	43.3%	54.3%	64.4%	42.7%
Georgia	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ingham (MI)	110.5%	100.0%	115.4%	0.0%	0.0%	0.0%
Kentucky	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Los Angeles (CA)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Massachusetts	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nebraska	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New Mexico	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
New York	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Okaloosa (FL)	75.5%	74.1%	84.6%	91.7%	90.2%	100.0%
Rhode Island	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Texas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Washington	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wisconsin	247.4%	485.7%	193.5%	430.0%	1033.3%	323.5%

FVAP RESEARCH NOTE

Data Standardization and the 2024 General Election

ESB and EAVS Item Alignment B31 to B33: Compares alignment in items covering the total number of FWABs rejected because they missed the deadline (B31), the total number of FWABs rejected because the voter's regular absentee ballot was received and counted (B32), and the total number of FWABs rejected for other reasons (B33). All items are divided into three subitems that correspond to the total *UOCAVA* voters ("a" subitems), Uniformed Service members ("b" subitems), and overseas citizens ("c" subitems).

ESB-EAVS Item Alignment – B31 to B33

	B31a	B31b	B31c	B32a	B32b	B32c	B33a	B33b	B33c
Boone (MO)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Brevard (FL)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Colorado	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
Georgia	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ingham (MI)	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Kentucky	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Los Angeles (CA)	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Massachusetts	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Nebraska	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New Mexico	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New York	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Okaloosa (FL)	83.3%	83.3%	100.0%	0.0%	0.0%	100.0%	28.6%	33.3%	0.0%
Rhode Island	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%
Texas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Washington	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
Wisconsin	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	75.0%	133.3%	55.6%