Information and Technology for Better Decision Making

2008 Post-Election Voting Survey of Overseas Citizens

Statistical Methodology Report

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2008 POST-ELECTION VOTING SURVEY OF OVERSEAS CITIZENS: STATISTICAL METHODOLOGY REPORT

Defense Manpower Data Center
Human Resources Strategic Assessment Program
1600 Wilson Boulevard, Suite 400, Arlington, VA 22209-2593

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Policy officials contributing to the development of this survey include Erin St. Pierre and Scott Wiedmann (Federal Voting Assistance Program). Other important contributors to the survey development include Elizabeth Gracon (Department of State), and Mike Wilson (Westat).

DMDC's Program Evaluation Branch, under the guidance of Brian Lappin, previous Branch Chief, and Kristin Williams, current Branch Chief, is responsible for the development of questionnaires in the survey program. The lead survey design analyst was Robert Tinney.

DMDC's Personnel Survey Branch, under the guidance of David McGrath, Branch Chief, is responsible for survey sampling methods, survey database construction, and archiving. The lead operations analyst on this survey was Laverne Wright, supported by Ryan Murphy, Consortium Research Fellow. The lead statistician on this survey was Mark Gorsak. Westat performed data collection and editing.

DMDC's Survey Technology Branch, under the guidance of Frederick Licari, Branch Chief, is responsible for the distribution of datasets outside of DMDC and maintaining records on compliance with the Privacy Act and 32 CFR 219.

2008 POST-ELECTION VOTING SURVEY OF OVERSEAS CITIZENS: STATISTICAL METHODOLOGY REPORT

Executive Summary

The Uniformed and Overseas Citizens Absentee Voting Act of 1986 (UOCAVA), 42 USC 1973ff, permits members of the Uniformed Services and Merchant Marine, and their eligible family members and all citizens residing outside the United States who are absent from the United States and its territories to vote in the general election for federal offices. These groups include:

- Members of the Uniformed Services (including Army, Navy, Air Force, Marine Corps, Coast Guard)
- U.S. citizens employed by the Federal Government residing outside the U.S., and
- All other private U.S. citizens residing outside the U.S.

The Federal Voting Assistance Program (FVAP), under the guidance of USD(P&R), is charged with implementing the UOCAVA and evaluating the effectiveness of its programs. The FVAP Office asked DMDC to design, administer, and analyze post-election surveys on Uniformed Services voter participation, overseas nonmilitary voter participation, and local election officials. Without such surveys, the Department will not be able to assess and improve voter access. In addition, such surveys fulfill 1988 Executive Order 12642 that names the Secretary of Defense as the "Presidential designee" for administering the UOCAVA and requires surveys to evaluate the effectiveness of the program in presidential election years.

The objectives of the 2008 post-election surveys are: (1) to gauge participation in the electoral process by citizens covered by UOCAVA, (2) to assess the impact of the FVAP's efforts to simplify and ease the process of voting absentee, (3) to evaluate other progress made to facilitate voting participation, and (4) to identify any remaining obstacles to voting by these citizens. Surveys were done of military members, federal civilian employees overseas, other U.S. citizens overseas, voting assistance personnel, and local election officials in the U.S.

This report focuses on the *2008 Post-Election Voting Survey of Overseas Citizens (2008 OAC)*, which was designed to capture the attitudes and behaviors of overseas American citizens. This report describes the sampling and weighting methodologies used in the *2008 OAC*. Calculation of response rates is described in the final section.

The population of interest for the *2008 OAC* consisted of all American citizens living overseas, excluding federal civilian employees and members of the U.S. Armed Forces.

The frame used to approximate the population of interest was compiled by the Department of State from embassy and consulate registration records. From this frame, a sample

was drawn of 10,687 individuals. The survey administration period lasted from November 7, 2008, to January 30, 2009. There were 577 usable questionnaires.

Due to the low response rate and number of usable questionnaires, there was no weighting process. Point estimates from the survey only represent respondents and cannot be weighted to generalize to the population of overseas citizens.

Observed location, completion, and response rates are provided in the final section of this report for both the full sample and for population subgroups. These rates were computed according to the recommendations of the Council of American Survey Research Organizations (1982) and the American Association for Public Opinion Research (AAPOR, 2008). The observed location, completion, and response rates were 36%, 15%, and 5%.

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2008 POST-ELECTION VOTING SURVEY OF OVERSEAS CITIZENS: STATISTICAL METHODOLOGY REPORT

Introduction

The Uniformed and Overseas Citizens Absentee Voting Act of 1986 (UOCAVA), 42 USC 1973ff, permits members of the Uniformed Services and Merchant Marine, and their eligible family members and all citizens residing outside the United States who are absent from the United States and its territories to vote in the general election for federal offices. These groups include:

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This report describes sampling and weighting methodologies for the *2008 Post-Election Voting Survey of Overseas Citizens (2008 OAC)*. The first section of this report discusses the target population, sample frame, design, and sample selection procedures. The second section summarizes data collection procedures and the third presents survey case disposition assignments. The fourth section describes weighting and variance estimation. The final section describes the calculation of response rates, location rates, and completion rates for the full sample and for population subgroups. Tabulated results of the survey are reported by DMDC (2009).

Sample Design and Selection

Target Population

The *2008 OAC* was designed to represent adult American citizens residing outside the United States, excluding federal civilian employees and members of the Armed Forces.

Sampling Frame

The sampling frame used for the *2008 OAC* was compiled by the Department of State (DoS). It was assembled from embassy and consulate registration records of citizens living or traveling overseas who voluntarily register either online through the Internet Based Registration System or in-person with a U.S. embassy or consulate in the overseas country. Registration records are generally used only to reach Americans in case of an emergency or to notify them of a security threat against U.S. citizens in the country where they are living.

DoS registration records had the following limitations as a sampling frame for the survey:

- Registration records have limited coverage of overseas citizens because many overseas citizens do not register.

- Registration coverage varies by geographic region (e.g., relatively complete coverage in Africa and far less complete coverage in European countries or Canada).

- Registration records include persons not eligible for the *2008 OAC* survey. For example, they include the names of minors, non-citizens, persons no longer living overseas who did not notify the embassy that they had returned to the United States, and persons living in the United States who want to receive emergency messages because they have a child or family member traveling abroad.

- Registration records contain different types of contact information. Some contain only postal addresses. E-mail addresses are available for only a subset of registrants because the DoS did not begin collecting that information for U.S. citizen registrants until 2000.

Despite these known limitations, the registration lists were considered the best source for building a sample frame and drawing a probability sample of overseas adult Americans. The frame, then, is said to include (but is not restricted to) overseas adult American citizens who registered at an embassy or consulate. The number of embassies and consulates by geographic region and embassy size are shown in Table 1. This classification by size and region defines the stratification used for sample selection. The size of an embassy is defined by the number of citizens registered at an embassy. An embassy is classified as small if it has 5,000 or fewer registered citizens. A medium-sized embassy has between 5,001 and 20,000 registered citizens. Large embassies have between 20,001 and 50,000 registered citizens, and a very large embassy has over 50,000 registered citizens.

Table 1.
Number of Embassies and Consulates by Region and Embassy Size

Embassy Size	Region					
	Total	Africa	East Asia/ Pacific	Europe	NE and SC Asia	Western Hemisphere
Total	230	44	38	59	38	51
Small	124	36	21	30	23	14
Medium	66	7	7	15	11	26
Large	23	1	6	8	2	6
Very Large	17	0	4	6	2	5

Registration information collected by the DoS (i.e., name and address) is protected by the Privacy Act. As a result, all processing of information, frame assembly, sample selection, and survey mailing was performed exclusively by the DoS.

Sample Design

The *2008 OAC* sample used a stratified two-stage design. In the first stage, embassies were stratified by the five geographic regions and four embassy size groups forming the twenty sample strata. Within each sample stratum, embassies were sorted alphabetically by country and city name. From this sorted list, within each stratum, a systematic random sample of embassies was selected. The number of embassies in the sample by region and embassy size is shown in Table 2.

Table 2.
Number of Embassies in the Sample by Region and Embassy Size

Embassy Size	Region					
	Total	Africa	East Asia/ Pacific	Europe	NE and SC Asia	Western Hemisphere
Total	70	12	14	17	12	15
Small	29	7	6	6	6	4
Medium	21	4	3	4	4	6
Large	12	1	3	4	1	3
Very Large	8	0	2	3	1	2

After the selection of the embassies, the second stage of sampling was implemented. In this stage, the lists of registered citizens for each selected embassy within a sampling stratum were separately sorted by name. The registrant population counts by region and embassy size are shown in Table 3.

Within each stratum, individuals were selected with equal probability without replacement using systematic random sampling. Because the allocation of the sample was not proportional to the size of strata, selection probabilities varied among strata, and individuals were not selected with equal probability overall. Nonproportional allocation was used to achieve adequate sample sizes for relatively small subpopulations of analytic interest. The key domain of interest was geographic region.

Table 3.
Registrant Population Counts by Region and Embassy Size

Embassy Size	Region					
	Total	**Africa**	**East Asia/ Pacific**	**Europe**	**NE and SC Asia**	**Western Hemisphere**
Total	884,321	31,781	195,120	261,461	160,265	235,694
Small	29,510	4,614	10,046	4,637	5,267	4,946
Medium	166,516	20,608	21,870	38,385	29,094	56,559
Large	210,547	6,559	56,833	85,599	7,083	54,473
Very Large	477,748	0	106,371	132,840	118,821	119,716

Survey Allocation

The total sample size was based upon precision requirements for the key reporting domain, geographic region. The precision goal was a confidence interval of ±5 percentage points at the 95% precision level. To achieve this level of precision, a total of approximately 400 completed surveys were needed for each geographic region. As there was no past history to draw on in setting assumptions regarding location and cooperation for this population, the research team considered several possible response scenarios. The team used an eligibility rate for adult U.S. citizens of 60%. Further, it was assumed that, of the eligible persons on the lists, 60% would have e-mail addresses and 40% would have postal addresses. It was also assumed that the e-mail access rate would be 80%, whereas the postal access rate would be 60%. Finally, the cooperation rate overall would be 45%. These assumptions yielded a sample size of 2,100 for each geographic region to produce a total of 408 completed surveys. Worldwide, the total sample was set at 10,500.

For each geographic region the sample size was set at 2,100 for an equal size allocation across regions. Within each region, an allocation strategy was needed for selection by embassy size. As Table 3 shows, there was a predictable difference in population counts by embassy size

with very large embassy populations 20 or more times greater than that for embassies classified as small. If a proportionate-to-size allocation strategy were adopted, there would be very little survey input from embassies classified as small. Conversely, if an equal allocation were implemented across embassy size strata (e.g., 525 per strata or 700 per strata for Africa), a considerable design effect would result as the selection probabilities would vary greatly.

As a compromise between equal and proportionate allocation, a square root allocation was used. Under this allocation, the sample is allocated to the subpopulations proportional to the square root of the size of the subpopulation. Under the square root allocation, the sample is reallocated from the very large embassies to the smaller embassies as compared to what would have been done under a proportionate allocation.

This can be put in context when compared to a more general compromise allocation - the power allocation - under which the sample is allocated proportional to x^{λ}, where x is the measure of size and the parameter λ can take values between zero and 1. The value $\lambda = \frac{1}{2}$ corresponds to the square root allocation. The two extreme values of λ give the equal allocation and the proportionate-to-size allocation. More precisely, $\lambda = 0$ corresponds to equal allocation and $\lambda = 1$ corresponds to proportionate-to-size allocation.

Because of the issues mentioned for the equal and proportionate allocations, the square root allocation strategy is particularly well suited for the *2008 OAC*. Specifically, if we let n denote the total sample size, and n_h be the sample allocated to stratum g ,then n_h the sample allocated to stratum g is computed as

$$n_h = n \frac{\sqrt{N_h}}{\sum_h \sqrt{N_h}},$$

where N_h is the total number of persons in stratum h .

Sample Selection

Sample selection proceeded in two stages. In the first stage, the frame of all 230 embassies was stratified by geographic region and embassy size into 20 sample strata as shown in Table 1. From each of the twenty sample strata, a systematic random sample of embassies was selected to achieve a total sample size of 70 embassies (Table 2). In the second stage of selection, a sample was drawn from the population of registrants in each sample stratum. Registrant population counts are shown in Table 3. Sample allocation among the strata within a geographic region was made using the square root strategy. Sample selection was accomplished using the systematic random method. Sample counts of registrants by region and embassy size are shown in Table 4.

Table 4.
Sample Counts of Registrants by Region and Embassy Size

Embassy Size	Region					
	Total	Africa	East Asia/ Pacific	Europe	NE and SC Asia	Western Hemisphere
Total	10,687	2,118	2,090	2,281	2,099	2,099
Small	1,299	493	256	157	227	166
Medium	2,965	1,044	381	446	532	562
Large	2,853	581	610	847	263	552
Very Large	3,570	0	843	831	1,077	819

Survey Administration

Sample Contact Information

Survey administration for the *2008 OAC* began on November 7, 2008, and continued through January 30, 2009. The survey was administered mixed mode–in both Web and paper formats. Sample members with an e-mail address were initially assigned to the Web survey (2,651), whereas sample members with only a postal address (7,734) were initially assigned to the paper survey. An additional 302 cases were determined to be ineligible (e.g., a minor, in the United States, a noncitizen, or deceased) before the start of data collection.

The DoS could not share protected contact information (e.g., registrant names, postal addresses, and e-mail addresses) with other members of the research team. Consequently, all labeling and mailing operations (postal and e-mail) were performed at the DoS offices in Washington, DC.

Survey Administration

For both the Web and paper administration, the data collection plan called for three types of communication with sampled American citizens: pre-notification, survey invitation, and thank you/reminder. The pre-notification would alert sampled individuals that they had been selected for participation in the survey and provide background on the purpose and sponsor of the survey. The second communication, the "survey invitation," would contain the paper survey for postal recipients or a link to the survey for web recipients. Finally, the third type of communication would be a "thank you/reminder." After a specified period following survey invitation/distribution, the "thank you/reminder" would be sent. The main purpose of this communication was to remind sampled individuals of the survey and ask them to complete and return the survey.

Web Survey Administration

The DoS sent e-mail pre-notifications, survey invitations, and thank you/reminders to members of the survey sample with known e-mail addresses under the signature of Janice L. Jacobs, Assistant Secretary of State for Consular Affairs. The dates of the e-mail distribution are shown in Table 5.

The survey invitations and thank you/reminders included a hyperlink to the survey Web site and a unique Ticket Number for logging on to the survey. Thank you/reminders were sent to all sample members excluding those who had been identified as ineligible or whose earlier thank you/reminder had bounced back. The pre-notifications did not include the ticket number or Web site. Please see DMDC (In preparation) for further information on survey administration.

Table 5.
E-Mail Distribution to Overseas Citizens

Type of E-Mail	Date
Pre-notification	10/31/08
Survey invitation	11/7/08
Thank you/reminder:	11/14/08
Thank you/reminder:	12/4/08
Thank you/reminder:	12/15/08
Thank you/reminder:	1/5/09

Mail Survey Administration

The pre-notification letter, as well as the survey cover letter and the thank you/reminder letters, were all sent under the signature of Janice L. Jacobs, Assistant Secretary of State for Consular Affairs. Printed pre-notification letters in franked envelopes were delivered to the DoS, where labels with names and addresses were attached to the mailing envelopes. During the labeling and assembly of the letters, the DoS removed several hundred letters with bad addresses. Thus, pre-notification letters were sent to approximately 7,100 of the original 7,734 overseas citizens assigned to the paper survey. After the letters were assembled, they were mailed via the United States Postal Service (USPS) from October 30, to October 31, 2008.

In early November, the DoS received survey invitation packet materials. These included a survey cover letter, the printed survey, an envelope with a DoS address for returning the completed survey, and an outer mailing envelope. Packet materials were assembled and labeled between November 7, and November 10, 2008. Once assembled, the expectation was that the packets would be picked up and processed by the USPS.

Thank you/reminder letters and envelopes were assembled and labeled at the DoS and mailed via USPS from November 19, to November 21, 2008. No other thank you/reminders were mailed.

Return postage was not affixed to the outer mailing envelope. Sample members had three options for returning their completed paper surveys. The first option was to return the survey personally to their embassy or consulate. The second was to mail the survey to their embassy or consulate using their own postage. Once an embassy or consulate received a survey, the survey was sent via diplomatic pouch to DoS. The DoS delivered them in batches via FedEx to Westat for data entry, cleaning, and processing. The third option was for the respondent to supply their own postage on the return envelope and mail it directly to the DoS in Washington, DC. The DoS then delivered the survey to Westat.

Survey Administration Issues

Mail Delivery Issue

The planned survey invitation mailing experienced difficulties. Contrary to the plan of using USPS, employees in the DoS mail room re-sorted the survey invitation packets and placed them in diplomatic pouches for delivery overseas. This change in procedure was not communicated to the DoS staff working on the *2008 OAC*. As a consequence, survey packets arriving at an embassy were stuck upon arrival. Having U.S. postage, they could not be mailed or delivered without having local postage added to the packet.

The mailing problem was discovered when the DoS learned, near the end of November, that some overseas citizens had received the pre-notification letter and a thank you/reminder letter but not the survey packet. The DoS began tracking the location of the surveys and confirmed in early December that the surveys had all been sent via diplomatic pouches rather than by the USPS. The DoS then undertook a thorough effort to document survey status by post. Its findings are summarized below.

- Nineteen posts reported they mailed or delivered the surveys locally to sample members, another post delivered some of them locally, and surveys for sample members in Canada were re-sent from New York. Another post reported it received the surveys, but there was no information about what was done with them.

- Nine posts sent the undelivered surveys back to DoS Headquarters in Washington, DC or notified the DoS that they were en route. In seven of those instances, DoS re-mailed the surveys to sample members; however, some were re-mailed late in the data collection period to two posts—on January 22, 2009, to Venezuela and on December 29, 2008, to Mexico.

- The surveys were either not seen by, or no answer about the surveys was received from 34 posts. However, completed surveys or undeliverable surveys were received from 18 of those posts, indicating that some effort was made to deliver surveys to sample members registered with those posts.

Other Delivery Issues

Other postal mail issues include the following:

- Pre-notification letters mailed in October were returned to the DoS several months after the close of the survey and marked “return to sender.”

- The postal reminders did not include the web site and ticket number.

For the Web administration, there were browser connectivity issues with the Web address. Respondents sent e-mail messages to the Westat help center. Alternative methods to link to the site were provided to the respondents.

Weighting

Due to the low response rate and number of usable questionnaires, there was no weighting process. Point estimates from the survey only represent respondents and cannot be weighted to generalize to the population of overseas citizens.

Case Dispositions

Case dispositions were assigned based on eligibility for the survey and completion of the returned survey.

Final case dispositions were determined using information from field operations (the Survey Control System, or SCS) and returned surveys. No single source of information is both complete and correct; inconsistencies among these sources were resolved according to the order of precedence shown in Table 6.

Table 6.
Case Disposition Resolution

Case Disposition	Information Source	Conditions
Frame ineligible	Personnel record	Ineligible on the list.
Ineligible by self- or proxy-report	SCS	Ill, Incarcerated, or Deceased.
Survey response: ineligible	Survey Questionnaire	Respondent is not a US citizen or is less than 18 years old.
Eligible, complete response	Item response rate	Item response is at least 50% for respondents that were registered voters. All respondents identified as not registered were eligible and complete for the survey.
Eligible, incomplete response	Item response rate	Return is not blank but item response is less than 50% for registered voters.
Unknown eligibility, and complete response	Personnel record, first survey question, item response rate	Incomplete personnel record AND first survey item is missing AND item response is at least 50%.
Active refusal	SCS	Reason for refusal is "any;" ineligible reason is "other;" reason survey is blank is "refused-too long," "ineligible-other," "unreachable at this address," "refused by current resident," or "concerned about security/confidentiality."
PND	SCS	Postal non-delivery or original non-locatable.
Nonrespondent	Remainder	Remainder

This order is critical to resolving case dispositions. For example, suppose a sample person refused the survey, with the reason that it was too long; in the absence of any other information, the disposition would be "eligible nonrespondent." If a proxy report was also given that the sample person had been hospitalized and was unable to complete the survey, the disposition would be "ineligible."

Final case dispositions for the *2008 OAC* are shown in Table 7.

Table 7.
Sample Size by Case Disposition Categories

Case Disposition Category and (Code Value)	Sample Size
Total	10,687
Frame Ineligible	6
Ineligible Response	
Self/Proxy-report (2)	861
Survey Self report (3)	121
Eligible Response	
Complete (4)	577
Incomplete (5)	34
Unknown eligibility	5
Refused/Deployed/Other (8)	3
Postal Non-Delivery (10)	2343
Non-respondents (11)	6737

Eligible Completed Cases

Table 8 shows the number of respondents by region.

Table 8.
Complete Eligible Cases by Region

	Region					
	Total	**Africa**	**East Asia/ Pacific**	**Europe**	**NE and SC Asia**	**Western Hemisphere**
Total	577	99	134	174	105	65

Variance Estimation

Due to the low number of usable questionnaires, no variance estimation procedures were performed, such as creation of variance strata.

Location, Completion, and Response Rates

Location, completion, and response rates were calculated in accordance with guidelines established by the Council of American Survey Research Organizations (CASRO). The

procedure is based on recommendations for Sample Type II response rates (Council of American Survey Research Organizations, 1982). This definition corresponds to The American Association for Public Opinion Research (AAPOR) RR3 (AAPOR, 2008), which estimates the proportion of eligible cases among cases of unknown eligibility.

Location, completion, and response rates were computed for *PEVSVAO08* as follows:

The location rate (LR) is defined as

$$LR = \frac{\text{adjusted located sample}}{\text{adjusted eligible sample}} = \frac{N_L}{N_E}.$$

The completion rate (CR) is defined as

$$CR = \frac{\text{usable responses}}{\text{adjusted located sample}} = \frac{N_R}{N_L}.$$

The response rate (RR) is defined as

$$RR = \frac{\text{usable responses}}{\text{adjusted eligible sample}} = \frac{N_R}{N_E}.$$

where

- N_L = Adjusted located sample
- N_E = Adjusted eligible sample
- N_R = Usable responses.

To identify the cases that contribute to the components of LR, CR, and RR, the disposition codes were grouped as shown in Table 9.

Table 9.
Disposition Codes for Response Rates

Case Disposition Category	Code Value
Eligible Sample	4, 5, 8, 10, 11
Located Sample	4, 5, 8, 11
Eligible Response	4
No Return	11
Eligibility Determined	2, 3, 4, 5, 8
Self Report Ineligible	2, 3

Note. Code values are from Table 7.

Ineligibility Rate

The ineligibility rate (IR) is defined as

$$IR = \frac{\text{self report ineligible cases}}{\text{eligible determined cases}}.$$

Estimated Ineligible Postal Non-Deliverable/Not Located Rate

The estimated ineligible postal non-deliverable / not located rate (IPNDR) is defined as

$$IPNDR = \left(Eligible\,Sample - Located\,Sample\right) * IR.$$

Estimated Ineligible Nonresponse

The estimated ineligible nonresponse (EINR) is defined as

$$EINR = \left(Not\,returned\right) * IR.$$

Adjusted Location Rate

The adjusted location rate (ALR) is defined as

$$ALR = \frac{(Located\,Sample - EINR)}{(Eligible Sample - IPNDR - EINR)}.$$

Adjusted Completion Rate

The adjusted completion rate (ACR) is defined as

$$ACR = \frac{(Eligible response)}{(Located\,Sample - EINR)}.$$

Adjusted Response Rate

The adjusted response rate (ARR) is defined as

$$ARR = \frac{(Eligible\ response)}{(Eligible Sample - IPNDR - EINR)}.$$

Observed location, completion, and response rates by region for *2008 OAC* are shown in Table 10.

Table 10.
Observed Rates by Region

Domain	Sample Size	Usable Responses	Location Rate (%)	Completion Rate (%)	Response Rate (%)
Sample	10687	577	35.8	14.8	5.4
Region					
Africa	2118	99	22.8	20.3	4.7
East Asia/Pacific	2090	134	41.6	15.2	6.4
Europe	2281	174	43.3	17.3	7.6
NE and SC Asia	2099	105	37.9	12.8	5.0
Western Hemisphere	2099	65	37.1	8.3	3.1

References

American Association for Public Opinion Research. (2008). *Standard definitions: Final dispositions of case codes and outcome rates for surveys.* 5th edition, Lenexa, KS: AAPOR.

Council of American Survey Research Organizations. (1982). *On the definition of response rates* (special report of the CASRO task force on completion rates, Lester R Frankel, Chair). Port Jefferson, NY: Author.

DMDC. (In preparation). *2008 Post-Election Voting Survey of Overseas Citizens: Administration, datasets, and codebook* (Report No. 2009-048). Arlington, VA: Author.

DMDC. (2009). *2008 Post-Election Voting Survey of Overseas Citizens: Tabulations of responses* (Report No. 2009-047). Arlington, VA: Author.

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14. ABSTRACT

This report describes sample design, sample selection, weighting, and variance estimation procedures for the 2008 Post-Election Voting Survey of Overseas Citizens. The first section of this report describes the design and selection of sample. The second section provides information on weighting and variance estimation. The final section describes the calculation of response rates, location rates, and completion rates for the full sample and for population subgroups.

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