

**REPORT TO CONGRESS
ON
THE SURVEY OF MILITARY CHAPLAINS VIEWS ON
DEPARTMENT OF DEFENSE POLICY REGARDING
CHAPLAIN PRAYERS OUTSIDE OF RELIGIOUS
SERVICES**



**Prepared by the Office of the Under Secretary of Defense
for Personnel and Readiness**

The estimated cost of this report for the Department of Defense is \$118,024. This includes \$2,000 in expenses, \$23,000 in Department of Defense labor, and \$93,024 in contractor costs for this study.

Executive Summary

The National Defense Authorization Act of 2014 (P.L.113-66), section 534, required the Secretary of Defense to conduct a statistically valid random survey of military chaplains of the regular and reserve components to assess whether restrictions placed on prayers offered in a public or non-religious setting have prevented military chaplains from exercising the tenets of their faith as prescribed by their endorsing faith group; and whether those restrictions have had an adverse impact on the ability of military chaplains to fulfill their duties to minister to members of the Armed Forces and their dependents.

This report discusses the findings from the 2014 QuickCompass of Military Chaplains survey conducted by the Defense Research, Surveys, and Statistics Center within the Defense Manpower Data Center. A summary of the findings related to chaplains' views on praying at public events outside of religious services revealed that:

- The response rate was extremely high; 59% of the 5,131 Active duty and Reserve component chaplains participated, well above the average response rate for military surveys, which is currently 20-30%.
- Chaplains profoundly appreciate serving in a pluralistic environment
- Number of incidents is low, thus demonstrating current policy is sufficient
- Services need to put an emphasis on current policy in training to ensure it is intrinsically understood

Conclusion

This survey provides further insight to the views chaplains have regarding the balancing of their tenets of faith and endorsement in the performance of official duties in private and public ceremonies and events. Having reviewed the survey results in relationship to current policy, the Department is confident that policy does ensure chaplains will not be required to perform duties that violate the tenets of faith and that declining such opportunities, in either private or public settings, will not adversely impact their careers. DoD will continue to examine the results of this survey and work with the Services to ensure that training for commanders, chaplains and the religious organizations who endorse them as chaplains to the Military Departments will resolve any ambiguity or misconceptions concerning the perception by fifty-one percent of chaplains who think that declining to participate in prayer at public events outside a religious service will adversely impact their careers.



Defense Research, Surveys, and Statistics Center (RSSC)

2014 QuickCompass of Military Chaplains

Executive Report



Additional copies of this report may be obtained from:

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2014 QUICKCOMPASS OF MILITARY CHAPLAINS

EXECUTIVE REPORT

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Acknowledgments

The Defense Manpower Data Center (DMDC) is indebted to numerous people for their assistance with the *2014 QuickCompass of Military Chaplains (2014 QCMC)*, which was conducted on behalf of Military Personnel Policy (MPP). The survey program is conducted under the leadership of Dr. Paul Rosenfeld, Director of the *Defense Research, Surveys, and Statistics Center (RSSC)*.

Policy officials contributing to the development and administration of this survey include Chaplain Jerry Pitts, Chaplain Jeffrey Bartels, and Mr. Brian Hodge, Armed Forces Chaplains Board (AFCB), and Mr. Lernes Hebert, Principal Director, MPP.

RSSC's Survey Design, Analysis, & Operations Branch, under the guidance of Carol Newell, Branch Chief and Team Lead of Survey Operations, is responsible for the development and analysis of this survey and for the survey database construction and archiving. The lead survey design analyst is Ms. Lisa Davis. The lead operations analyst on this survey was Dr. Barbara Quigley. Ms. Lisa Davis used DMDC's Statistical Analysis Macros to calculate the estimates presented in this report.

RSSC's Statistical Methods Branch, under the guidance of Mr. David McGrath, Branch Chief, is responsible for designing the sample and weighting methods used in the survey program. The lead statistician on this survey was Mr. Jeff Schneider, supervised by Mr. Eric Falk. Ms. Carole Massey provided programming support for the sampling and weighting tasks. Data Recognition Corporation (DRC) performed data collection and editing.

A team consisting of Ms. Lisa Davis, Ms. Carol Newell, Dr. Barbara Quigley, Dr. Elizabeth P. Van Winkle, and Dr. Maia Hurley completed quality control for this report.

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2014 QUICKCOMPASS OF MILITARY CHAPLAINS: EXECUTIVE REPORT

Introduction

The Defense Research, Surveys, and Statistics Center (RSSC)¹ within the Defense Manpower Data Center (DMDC) conducts both web-based and paper-and-pen surveys to support the personnel information needs of the Under Secretary of Defense for Personnel and Readiness (USD[P&R]). For over 25 years, RSSC has been DoD's lead organization for conducting impartial and unbiased scientific survey and focus group research on a number of topics of interest to the Department.

This Executive Report discusses findings from the *2014 QuickCompass of Military Chaplains (2014 QCMC)*, conducted from September 19, 2014 to October 29, 2014. The survey was conducted to collect quantitative data for a Congressional Report for the office of Military Personnel Policy (MPP) as mandated by the National Defense Authorization Act for Fiscal Year 2014, Section 534 to assess the views of military chaplains on DoD policy regarding chaplain prayers outside of religious services.

Survey Methodology

Statistical Sample Design

The target population of the *2014 QCMC* consists of active duty members of the Army, Navy, Marine Corps, and Air Force,² as well as Reserve component members of the Army National Guard (ARNG), US Army Reserve (USAR), Naval Reserve (USNR), Marine Corps Reserve (USMCR), Air National Guard (ANG), and US Air Force Reserve (USAFR),³ who were identified as military chaplains by having a DoD primary or duty occupation of "chaplain."⁴ The *2014 QCMC* was a census of 5,160 active duty and Reserve component military chaplains.

The web survey administration process began on September 19, 2014, with the mailout of announcement letters. An announcement e-mail was also sent to all military chaplains on September 22, 2014. The announcement letter and e-mail explained why the survey was being conducted, how the survey information would be used, and why participation was important. Throughout the administration period, additional e-mail reminders were sent to encourage survey participation. Military chaplains became ineligible if they indicated in the survey or by other contact (e.g., telephone calls to the survey operations contractor) that they were not in a Service/Reserve component as of the first day of the survey, September 22, 2014 (29 military chaplains), resulting in a final eligible population of 5,131. Completed surveys (defined as 50%

¹ Prior to 2014, RSSC was called Human Resources Strategic Assessment Program (HRSAP). In 2014, DMDC reorganized and renamed the RSSC to better encapsulate the scope of research conducted by this group.

² The population of active duty members were drawn from DMDC's *April 2014 Active Duty Master Edit File (ADMF)*.

³ The population of Reserve component members were drawn from DMDC's *April 2014 Reserve Components Common Personnel Data System (RCCPDS)*.

⁴ All chaplains in the population are officers.

or more of the survey questions asked of all participants are answered) were received from 3,041 eligible respondents. The overall weighted response rate for eligible respondents was 59%.

Data were weighted using a two-stage process that conforms to industry standards. This form of weighting produces survey estimates of population totals, proportions, and means (as well as other statistics) representative of their respective populations. Unweighted survey data, are likely to produce biased estimates of population statistics. The 2014 QCMC was a census of all military chaplains and the initial weight for all members was 1. The two-stage process of weighting for nonresponse and post-stratification are described below:

- *Adjustments for nonresponse*—For example, assume 1,000 members are selected for a sample and some sampled members do not respond to the survey. Suppose only half of the sample members, 500 out of 1,000, completed and returned a survey. Because the unweighted response sample size would only be 500, weights are needed to project the sample to the subgroup population total (1,000). In this case, the base-weighted respondents would sum to only 500 weighted respondents because everyone has a base weight of 1 due to the survey being a census. To adjust for nonresponse, the base weights are multiplied by the reciprocal of the nonresponse rate (2) to create a new weight of 2. The weighted sample sums to the subgroup population total of 1,000.
- *Adjustment to known population values*—Because the sample design and adjustments for nonresponse cannot take into account all demographic differences related to who responds to a survey and how they respond, additional information is used to increase the precision of survey estimates. A final weighting adjustment is computed reproducing population totals for important demographic groupings related to who responds to a survey and how they might answer the survey. To reduce possible bias and reproduce known population totals, the nonresponse weights would be adjusted so the final weights would give unbiased estimates. This final stage of weighting is known as post-stratification.

Statistical Comparisons

Only statistically significant group comparisons are discussed in this Executive Report. Comparisons are made along a single dimension (e.g., religious affiliation, service by officer status).⁵ In these types of comparisons, the responses for one group are compared to the weighted average of the responses of all other groups in that dimension (e.g., Protestant compared to Catholic, Jewish, Orthodox, and other religion). Results noted as higher or lower than other results within the comparison groups for the 2014 QCMC are determined significant at an alpha (α) level of .05.⁶ The comparison groups in this Executive Report are as follows:

- *Overall Service/Component*: active duty chaplains and Reserve component chaplains

⁵ Officer status is divided into junior officers (O1-O3) and senior officers (O4 and above).

⁶ DMDC statistically adjusts alpha levels to appropriately account for the large number of statistical tests conducted for this survey; see Appendix B for frequently asked questions regarding sampling and weighting practices and Appendix C for the Statistical Methodology Report.

- *Active Duty Service by Officer Status:* Army junior officers, Army senior officers, Navy/Marine Corps junior officers, Navy/Marine Corps senior officers, Air Force junior officers, and Air Force senior officers
- *Reserve Component by Officer Status:* ARNG junior officers, ARNG senior officers, USAR junior officers, USAR senior officers, USNR/USMCR junior officers, USNR/USMCR senior officers, ANG junior officers, ANG senior officers, USAFR junior officers, and USAFR senior officers
- *Religious Affiliation:* Protestant chaplains, Catholic chaplains, Jewish chaplains, Orthodox chaplains, and chaplains of other religions⁷

Background on Survey Questions

The topics covered in the 2014 QCMC include: chaplains' perceptions of restrictions on prayers in a public or non-religious setting; chaplains' perceptions of the impact of the restrictions on their ability to exercise their tenets of faith; and military chaplains' perceptions of the adverse impact of these restrictions on their ability to fulfill their duties as a chaplain.⁸ Results are presented below for survey respondents at the "Total" DoD level with statistically significant comparisons as denoted above.

Results

Experiences Praying Outside of a Religious Service

The vast majority of military chaplains (97%) have prayed at a command ceremony or public event outside of a religious service in the past 12 months.

- Orthodox chaplains (>99%), ARNG senior officers (>99%), Navy/Marine Corps junior officers (>99%), Army junior officers (99%), active duty chaplains (98%), and ARNG junior officers (98%) were more likely to pray outside of a religious service in the past 12 months, while Jewish chaplains (87%), USAR junior officers (92%), Reserve component chaplains (96%), and Army senior officers (97%) were less likely

Of the 97% of military chaplains who have prayed outside of a religious service in the past 12 months, 40% prayed *more than ten times*, about one-third (34%) prayed *one to five times*, and slightly less than one-third (27%) prayed *six to ten times*.

- Military chaplains who were more likely to *pray more than ten times* were Air Force junior officers (78%), Navy/Marine Corps junior officers (65%), Air Force senior officers (65%), Navy/Marine Corps senior officers (57%), active duty chaplains (51%), USAFR senior officers (40%), ARNG senior officers (37%), USAFR junior officers (36%), and ANG senior officers (34%).

⁷ Religious affiliation was created primarily from self-report data. When self-report data was missing from the survey, record data was used. Orthodox is defined as Eastern Orthodox or Orthodox churches. *Other religion* is defined as all religions not classified in the other four categories.

⁸ See Appendix A for a copy of the survey instrument.

- USNR/USMCR senior officers (74%), USNR/USMCR junior officers (67%), USAR junior officers (67%), Reserve component chaplains (51%), and Army senior officers (33%) were more likely to have *prayed one to five times*.
- Army junior officers (37%), ANG senior officers (35%), ARNG senior officers (29%), and active duty chaplains (29%) were more likely to have *prayed six to ten times*.

Of the 3% of military chaplains who have not prayed at a command ceremony or public event outside of a religious service in the past 12 months, the majority (82%) indicated the primary reason is because they had *no opportunity*, whereas 9% indicated some *other reason*, 6% had *scheduling conflicts*, 4% reported *chaplains of other faiths were given the opportunity*, and less than 1% of chaplains *declined because the tenets of their faith conflicted with the event or were not asked due to tenets of faith*.

Training, Guidance and Support

Of the 97% of military chaplains who have prayed outside of a religious service in the past 12 months:

- The majority (88%) of military chaplains *agreed* their training prepared them to balance the tenets of faith with the needs of other faith groups, whereas 5% *disagreed*.
 - USNR/USMCR senior officers (96%), ANG junior officers (95%), ANG senior officers (94%), Catholic chaplains (93%), Air Force senior officers (91%), and Navy/Marine Corps junior officers (91%) were more likely to *agree*, while Air Force junior officers (7%) were more likely to *disagree*.
- The majority (81%) of military chaplains *agreed* their endorser guidance is a valuable resource in preparing prayers for pluralistic settings, while 5% *disagreed*.
 - Military chaplains who were more likely to *agree* include USAR junior officers (86%), Air Force junior officers (85%), Army senior officers (85%), and Protestant chaplains (82%), while Orthodox chaplains (25%) were more likely to *disagree*.
- Approximately three-fourths (73%) of military chaplains *agreed* their supervisor guidance is a valuable resource in preparing prayers for pluralistic settings, while 8% *disagreed*.
 - USAFR junior officers (86%), ANG junior officers (85%), Air Force senior officers (81%), Catholic chaplains (79%), Army senior officers (79%), and Reserve component chaplains (75%) were more likely to *agree*, while Orthodox chaplains (20%), Navy/Marine Corps senior officers (13%), Navy/Marine Corps junior officers (13%), and active duty chaplains (9%) were more likely to *disagree*.

- Approximately three-fourths (73%) of military chaplains *agreed* their supervisor supports their decision to decline participation in settings that conflict with their tenets of faith, while 3% *disagreed*.
 - Military chaplains who were more likely to *agree* include ARNG junior officers (81%), USAR junior officers (81%), Navy/Marine Corps junior officers (79%), and Air Force junior officers (79%), while Army senior officers (5%) and active duty chaplains (4%) were more likely to *disagree*.

Of the 97% of military chaplains who have prayed outside of a religious service in the past 12 months, a little less than one-tenth (9%) of military chaplains either *disagreed* or *strongly disagreed* that *supervisor guidance is a valuable resource* and/or their *supervisor supports their decision to decline participation*. Of this 9% of military chaplains:

- Less than one-third (28%) indicated policy or supervisor guidance limits their ability to pray or exercise the tenets of faith according to their *endorser standards*.
 - Higher rates were reported by ARNG senior officers (56%), Air Force junior officers (50%), and Protestant chaplains (30%).
- One-third (33%) indicated policy or supervisor guidance limits their ability to pray or exercise the tenets of faith according to their *personal conscience*.
 - Higher rates were reported by Army senior officers (50%) and Protestant chaplains (35%).

Perception of Adverse Impacts for Declining to Pray Outside of a Religious Service

Approximately half of military chaplains (51%) indicated declining to pray at a command ceremony or public event will adversely impact a chaplain's career.

- Higher rates were reported by Jewish chaplains (64%), ARNG senior officers (61%), Army junior officers (60%), Reserve component chaplains (53%), Army senior officers (53%), and Protestant chaplains (52%).
- Lower rates were reported by Navy/Marine Corps senior officers (39%), Navy/Marine Corps junior officers (42%), USNR/USMCR senior officers (43%), Catholic chaplains (43%), Air Force junior officers (45%), and active duty chaplains (50%).

About four out of ten military chaplains (42%) *agreed* if the endorsement or tenets of faith restrict a chaplain from conducting a prayer at a command ceremony or public event, it will adversely impact a chaplain's ability to fulfill their duties, whereas a little more than one-third (35%) *disagreed*.

- Military chaplains more likely to *agree* include Jewish chaplains (58%), Catholic chaplains (48%), Reserve component chaplains (45%), and Army junior officers (44%).
- Military chaplains more likely to *disagree* include Air Force senior officers (46%), USAFR junior officers (41%), and active duty chaplains (38%).

Benefits from Participation in Events Outside of a Religious Service

When asked about the benefits of participating in command ceremonies or public events outside of a religious service, the vast majority of military chaplains *agreed* they have the support of their *religious endorsement* to participate (98%). Less than 1% of chaplains *disagreed*.⁹

- Military chaplains more likely to *agree* include Orthodox chaplains (>99%), chaplains of other religion (>99%), USAFR junior officers (>99%), and USAFR senior officers (>99%).

Military chaplains also *agreed* that *military members* benefit from chaplain participation in command ceremonies or public events outside of a religious service (95%), whereas only 1% *disagreed*.

- ANG junior officers (>99%), ARNG senior officers (98%), Navy/Marine Corps junior officers (98%), Navy/Marine Corps senior officers (97%), and Reserve component chaplains (96%) were more likely to *agree*, while Army senior officers (2%) and active duty chaplains (1%) were more likely to *disagree*.

The vast majority (93%) of military chaplains *agreed* as a *chaplain* they benefit from participation in command ceremonies or public events outside of a religious service, whereas only 1% *disagreed*.

- Military chaplains more likely to *agree* include USNR/USMCR senior officers (99%), ANG junior officers (98%), Navy/Marine Corps junior officers (96%), Reserve component chaplains (95%), and Protestant chaplains (94%), while Army senior officers (3%) and active duty chaplains (2%) were more likely to *disagree*.

Considerations in Planning of Prayers for Pluralistic Settings

When a military function is mandatory for all, the vast majority (94%) of military chaplains *agreed* they should take this into consideration in their preparation of prayers, whereas 3% *disagreed*.

- USAR senior officers (98%), Catholic chaplains (97%), Air Force senior officers (96%), Navy/Marine Corps junior officers (96%), and Navy/Marine Corps senior officers (96%) were more likely to *agree*, while Army junior officers (5%) and Protestant chaplains (4%) were more likely to *disagree*.

⁹ There were no significant differences among military chaplains who disagreed.

The majority (89%) of military chaplains also *agreed* the diversity of faith groups that may be represented among the participants at a function should be taken into consideration in their preparation of prayers, whereas 6% *disagreed*.

- USNR/USMCR junior officers (96%), Catholic chaplains (96%), Orthodox chaplains (95%), Navy/Marine Corps senior officers (94%), ANG senior officers (93%), Air Force senior officers (93%), and USAR senior officers (93%) were more likely to *agree*, while ARNG junior officers (10%), Army junior officers (8%), and Protestant chaplains (7%) were more likely to *disagree*.

Resources Available to Chaplains

The majority of military chaplains indicated they would use their Endorsing Agent¹⁰ (92%) and/or their Supervisory Chaplain (90%) to resolve a situation where they felt they were being compelled to perform duties contrary to the teachings of their religious organization. Three-fourths (75%) would go through the Chain of Command, about one-quarter (24%) to the Inspector General, and/or fewer to the Armed Forces Chaplains Board (AFCB) (14%) or some other resource (8%). Only 1% of military chaplains would not take any action. Significant differences for the top two responses are provided below.

Protestant chaplains (93%) were more likely to mark Endorsing Agent, whereas Catholic chaplains (83%) were less likely.

Orthodox (97%), USNR/USMCR senior officers (96%), ARNG junior officers (95%), and Army junior officers (93%) were more likely to mark Supervisory Chaplain, whereas ANG senior officers (80%), Navy/Marine Corps senior officers (85%), Air Force senior officers (86%), and Air Force junior officers (86%) were less likely.

Summary of Findings

The vast majority of military chaplains (97%) have prayed at a command ceremony or public event outside of a religious service in the past 12 months. Of the 3% who have not prayed at a command ceremony or public event outside of a religious service, the primary reason indicated was they were not given the opportunity (82%).

About half (51%) of military chaplains indicated based on their training and experience, they believe declining to pray at a command ceremony or public event will adversely impact a chaplain's career. Similarly, 42% of chaplains agreed if the endorsement or tenets of faith restrict a chaplain from conducting a prayer at a command ceremony or public event, it will adversely impact a chaplain's ability to fulfill their duties (35% disagreed).

While military chaplains seem to believe that declining to pray at events outside of a religious service may impact their career, the vast majority of chaplains agreed that both chaplains (93%) and military members (95%) benefit from chaplain participation at such events,

¹⁰ An *Endorsing Agent* is an individual authorized by a religious organization to ensure chaplains are qualified and endorsed to perform the duties of a military chaplain (DoD Instruction 1304.28).

and chaplains have strong support from their respective religious endorsements to participate (98%).

APPENDIX A
Survey Instrument



Defense Research, Surveys, and Statistics Center (RSSC)

- You have reached the redirect page for Department of Defense Research, Surveys, and Statistics Center (RSSC) surveys. You will be redirected to our contractor's web site (a secure .com site run by Data Recognition Corporation) to participate in the survey.
- DMDC has set up a telephone line for anyone who wishes to verify the survey's legitimacy. Call DSN 372-1034 from any DoD or other government telephone with DSN for a list of current DMDC surveys. If you do not have access to a DSN telephone line, call 1-571-372-1034. The prerecorded list does not include surveys conducted by agencies other than DMDC.
- Please enter your Ticket Number below, then click the Continue button to access your survey.

- If you are not automatically transferred, click on the link below:

<http://www.dodsurvey.net/>



QuickCompass

2014 QuickCompass of Military Chaplains

Welcome

[Security Protection Advisory](#)

[RCS# DD-P&R\(AR\)2145](#)
[Exp. 04/09/2016](#)

You have been selected to take a survey about the restrictions on prayers outside of religious services for military chaplains. When you click the *Continue* button below, you will be asked to:

- Create a Personal Identification Number (PIN)
- Read the Privacy Advisory
- Take the survey

Thank you for your time and participation.

Click [%%ADDRESSUPDATELINK%%](#) to verify and update your postal and e-mail address.

Section 508 Compliance

The U.S. Department of Defense is committed to making electronic and information technologies accessible to individuals with disabilities in accordance with [Section 508 of the Rehabilitation Act \(29 U.S.C. §794d\)](#), as amended in 1999. Send feedback or concerns related to the accessibility of this website to: DoDSection508@osd.mil. For more information about Section 508, please visit the [DoD Section 508 website](#). Last Updated: 08/13/2013

[Frequently Asked Questions / How to Contact Us](#)

PRIVACY ADVISORY

Your name and contact information have been used only for the distribution of this survey. Your responses to the demographic questions will allow DoD to better analyze all responses among varying demographic groups. Responding to this survey is voluntary. Most people can complete this survey in 20 minutes. There is no penalty to you if you choose not to respond. However, maximum participation is encouraged so the data will be complete and representative.

Additional Information

The Department of Defense is authorized to conduct this survey by United States Code Sections 10 USC 1782 and 10 USC 136.

Information collected in this survey will be used to research restrictions on prayers in public or non-religious settings. This information will assist in the formulation of policies which may be needed to improve the working environment. Reports will be provided to the Committees on Armed Services of the Senate and the House of Representatives. Some findings may be published by the Defense Manpower Data Center (DMDC) in professional journals or presented at conferences. Briefings and reports on results from these surveys will be posted on the website:
<http://www.dmdc.osd.mil/surveys/>

Your responses will be kept private to the extent permitted by law. This is your chance to be heard on issues directly affecting you. While there is no direct benefit for your individual participation, your responses on this survey will make a difference. Identifying information will be used only by government and contractor staff engaged in, and for purposes of, survey research. In no case will individual identifiable survey responses be reported.

The data collection procedures are not expected to involve any risk or discomfort to you. The only risk to you is accidental or unintentional disclosure of the data you provide. However, the government and its contractors have a number of policies and procedures to ensure that survey data are safe and protected. For example, no identifying information (name, address, Social Security Number) is ever stored in the same file as survey responses.

Survey data may be shared with DoD researchers or organizations outside the DoD conducting research on DoD personnel. In most cases these researchers will be provided with a dataset that contains limited demographic information (e.g., service, paygrade group, gender). DMDC performs a disclosure analysis on this dataset to reduce the risk of there being a combination of demographic variables which can single out an individual. In rare instances and only with sponsor approval, DMDC may make available datasets with many more demographic variables to a small number of approved researchers. There is some risk individuals might be identified on these datasets, however, DMDC implements several procedures to protect the data. The datasets will only be available in a secure environment where it cannot be downloaded or transferred. Statistical analyses can only be printed after review and approval to ensure identifying information is not released. Access to these datasets will only be on a need to know basis with an appropriate Memorandum of Understanding in place. Researchers will only have access to the dataset to conduct pre-approved analyses within an agreed upon timeframe. After the time elapses, researchers will no longer have access to the data.

If you experience any difficulties taking the survey, please contact the Survey Processing Center by sending an e-mail to DMDC.QCSurvey@mail.mil or calling, 1-800-881-5307.

Once you start answering the survey, if you desire to withdraw your answers, please notify the Survey Processing Center prior to October 27, 2014. Please include in the e-mail or phone message your name, Ticket Number, and the PIN that you selected when you started this survey. Unless withdrawn, partially completed survey data may be used after that date.

Click *Continue* if you agree to take the survey.

HOW TO CONTACT US

If you have questions or concerns about this survey, you have three ways to contact the Survey Operations Center:

- **Call:** 1-800-881-5307
- **E-mail:** DMDC.QCSurvey@mail.mil
- **Fax:** 1-763-268-3002

FREQUENTLY ASKED QUESTIONS

What is Defense Manpower Data Center (DMDC)?

- DMDC maintains the largest archive of personnel, manpower, training, and financial data in the Department of Defense (DoD). DMDC also conducts Joint-Service surveys including the Status of Forces Surveys, QuickCompass, and Human Relations Surveys for the DoD. To learn more, visit the DMDC website.

<http://www.dmdc.osd.mil/>

What is the QuickCompass (QC) Program?

- QuickCompass (QC) is a DoD personnel program that features web-based surveys sponsored by the Under Secretary of Defense for Personnel and Readiness (USD[P&R]).
- These surveys enable DoD to regularly assess the attitudes and opinions of the DoD community; including active duty and Reserve component members on the full range of personnel issues.

How do I know this is an official, approved DoD survey?

- In accordance with DoD Instruction 8910.01, all data collection in DoD must be licensed and show that license as a Report Control Symbol (RCS) with an expiration date. The RCS for this survey is RCS# DD-P&R(AR)2145, expiring 04/09/2016.

How did you pick me?

- DMDC uses well-established procedures to select survey participants representing the Defense community based on combinations of demographic characteristics (e.g., service, paygrade, religious affiliation, etc.)

Why should I participate?

- This is your chance to be heard on issues that directly affect you.
- Your responses on this survey make a difference.

What is DMDC.QCSurvey@mail.mil?

- The official e-mail address for communicating with military members about QuickCompass (QC). "DMDC.QCSurvey@mail.mil" is short for Quick Compass Survey.

Why am I being asked to use the web?

- Web administration enables us to get survey results to senior Defense leaders faster.

Why are you using a .net instead of a .mil domain to field your survey?

- The survey is administered by our contractor, Data Recognition Corporation, an experienced survey operations company. The survey collection tool starts on a .mil site within DMDC. Once you enter your ticket number, you are redirected to a contractor site which uses a .net domain. This allows everyone to access the survey, even from a non-government computer.

Do I have to answer all questions?

- No, it is not necessary to answer every question. Within the survey screen, you have four control buttons: *Next Page* (→), *Previous Page* (←), *Clear Responses*, and *Save and Return Later*. Use these buttons to navigate through the survey or skip questions. Use *Save and Return Later* to give yourself flexibility to complete the survey at a convenient time. When you return to the survey website, enter your Ticket Number to get to the place in the survey where you had stopped.

Why does the survey ask personal questions?

- DMDC reports overall results, as well as by other characteristics, such as service, paygrade, etc. To complete these analyses, we must ask respondents for these types of demographic information.
- Analyzing results in this way provides Defense leaders information about the attitudes and concerns of all subgroups of personnel so that no groups are overlooked.

Will my answers be kept private?

- All data will be reported in the aggregate and no individual data will be reported.
- We encourage you to safeguard your Ticket Number to prevent unauthorized access to your survey. In addition, to ensure your privacy, be aware of the environment in which you take the survey (e.g., take the survey when no one else is home, take care to not leave the survey unattended).

Can I withdraw my answers once I have started the survey?

- If you wish to withdraw your answers, please notify the Survey Processing Center prior to October 27, 2014 by sending an e-mail to DMDC.QCSurvey@mail.mil or calling, toll-free 1-800-881-5307. Include your name and Ticket Number.

Will I ever see the results of the survey?

- DMDC posts survey results on the following website:

<http://www.dmdc.osd.mil/surveys/>

BACKGROUND INFORMATION

1. [Ask if [COMP_CD] = "Regular"] In what Service were you on active duty on September 22, 2014?
 - Army
 - Navy
 - Marine Corps
 - Air Force
 - None, you were separated or retired

2. [Ask if [COMP_CD] = "Guard" OR [COMP_CD] = "Reserve"] Of which Reserve component were you a member on September 22, 2014?
 - Army National Guard
 - Army Reserve
 - Navy Reserve
 - Marine Corps Reserve
 - Air National Guard
 - Air Force Reserve
 - None, you were not in a Reserve component

3. What is your current paygrade?
 - O-1/O-1E
 - O-2/O-2E
 - O-3/O-3E
 - O-4
 - O-5
 - O-6 or above

4. Please indicate your religious affiliation by selecting from the list below. *If your religion is not listed, please select "Other."*

Please indicate your religious affiliation by selecting from the list below. *If your religion is not listed, please select "Other."*

[Ask if Q4 = "Other"] Please indicate your religious affiliation.

RESTRICTIONS ON PRAYERS IN A PUBLIC OR NON-RELIGIOUS SETTING

5. In your capacity as a military chaplain, have you prayed at a command ceremony or public event outside of a religious service in the past 12 months?
 - Yes
 - No

6. [Ask if Q5 = "Yes"] How many times have you prayed at a command ceremony or public event outside of a religious service in the past 12 months?
 - 1-5 times
 - 6-10 times
 - More than 10 times

7. [Ask if Q5 = "Yes"] How much do you agree or disagree with the following statements considering your experience with praying at command ceremonies or public events outside of a religious service? *Mark one answer for each statement.*

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. Training prepared me to balance the tenets of faith with the needs of other faith groups.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Endorser guidance is a valuable resource in preparing prayers for pluralistic settings.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. Supervisor guidance is a valuable resource in preparing prayers for pluralistic settings.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
d. My supervisor supports my decision to decline participation in settings that conflict with my tenets of faith.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

8. [Ask if Q7 c = "Strongly disagree" or "Disagree" OR Q7 d = "Strongly disagree" or "Disagree"] Did policy or supervisor guidance limit your ability to pray or exercise the tenets of faith according to your endorser standards?

- Yes
- No

[Ask if Q8 = "Yes"] Please explain how policy or supervisor guidance limits your ability to pray or exercise the tenets of faith according to your endorser standards.

9. [Ask if Q7 c = "Strongly disagree" or "Disagree" OR Q7 d = "Strongly disagree" or "Disagree"] Did policy or supervisor guidance limit your ability to pray or exercise the tenets of faith according to your personal conscience?

- Yes
- No

[Ask if Q9 = "Yes"] Please explain how policy or supervisor guidance limits your ability to pray or exercise the tenets of faith according to your personal conscience.

10. [Ask if Q5 = "No"] What is the main reason why you have not prayed at a command ceremony or public event outside of a religious service in the past 12 months?

- No opportunity
- Scheduling conflicts
- Chaplains of other faiths were given the opportunity
- Declined because the tenets of my faith conflicted with the event
- Not asked due to tenets of faith
- Other

[Ask if Q5 = "No" AND (Q10 = "Not asked due to tenets of faith" OR Q10 = "Other")] Please describe tenets of faith restrictions or other reasons why you have not prayed at a command ceremony or public event.

11. How much do you agree or disagree with the following statements? *Mark one answer for each statement.*

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. Chaplains benefit from participation in command ceremonies or public events <u>outside of a religious service</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. Military members benefit from chaplain participation in command ceremonies or public events <u>outside of a religious service</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
c. My religious endorsement supports participation in command ceremonies or public events <u>outside of a religious service</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

12. Based on your training and experience, do you believe declining to pray at a command ceremony or public event outside of a religious service will adversely impact a chaplain's career?

- Yes
- No

[Ask if Q12 = "Yes"] Please describe the adverse impacts on a chaplain's career from declining to pray at a command ceremony or public event outside of a religious service.

13. If you felt you were being compelled to perform duties contrary to the teachings of your religious organization, which of the following resource(s) would you use to resolve the situation? *Mark all that apply.*

- Endorsing Agent
- Supervisory Chaplain
- Chain of Command
- Inspector General
- Armed Forces Chaplains Board (AFCB)
- Would not take any action
- Other

[Ask if Q13 g = "Marked"] Please describe the other resources you would use to resolve a situation if you felt you were being compelled to perform duties contrary to the teachings of your religious organization.

14. How much do you agree or disagree with the following statements? *Mark one answer for each statement.*

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. The <u>diversity of faith groups</u> that may be represented among the participants at a function should be taken into consideration in the planning of prayers by military chaplains.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
b. When a <u>military function is mandatory</u> for all, military chaplains should take this into consideration in their preparation of prayers.....	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

15. If the endorsement or tenets of faith restrict a chaplain from conducting a prayer at a command ceremony or public event, do you agree or disagree that this adversely impacts a chaplain's ability to fulfill their duties?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

[Ask if Q15 = "Strongly agree" or Q15 = "Agree"] Please describe the adverse impacts this restriction would have on a chaplain's ability to fulfill their duties to minister to members of the Armed Forces and their dependents.

TAKING THE SURVEY

16. Thank you for participating in the survey. There are no more questions on this survey. If you have comments or concerns that you were not able to express in answering this survey, please enter them in the space provided. Your comments will be viewed and considered as policy deliberations take place. Any comments you make on this questionnaire will be kept confidential. Do not include any personally identifiable information (PII) in your comments. However, if DMDC or its data collection contractor perceives comments as a direct threat to yourself or others, out of concern for your welfare, DMDC may contact an office in your area for appropriate action. Your feedback is useful and appreciated.

17. [Ask if Q1 = "None, you were separated or retired" or Q2 = "None, you were not in a Reserve component"] Based on your answer to the previous question, you are ineligible to take this survey. If you feel you have encountered this message in error, click the back arrow button and check your answer(s). To submit your answers click **Submit**.

For further help, please call our Survey Processing Center toll-free at 1-800-881-5307, e-mail DMDC.QCSurvey@mail.mil, or send fax to 1-763-268-3002.

APPENDIX B

Frequently Asked Questions

Frequently Asked Questions

2014 QuickCompass of Military Chaplains

Defense Research, Surveys, and Statistics Center (RSSC)

Defense Manpower Data Center (DMDC)

The Defense Manpower Data Center (DMDC) Research, Surveys, and Statistics Center (RSSC) has been conducting web-based and paper-and-pen surveys on a number of topics of interest to the Department for over 25 years. DMDC-RSSC uses scientific state of the art statistical techniques to draw conclusions from populations within the Department of Defense (DoD), such as active duty and Reserve components. To construct population estimates for the *2014 QuickCompass of Military Chaplains (2014 QCMC)*, DMDC used weighting procedures to ensure accuracy of estimates to the military chaplain population. The following details some common questions about our methodology as a whole and the *2014 QCMC* specifically.

1. What was the population of interest for the 2014 QCMC?

The population of interest for the *2014 QCMC* consisted of military chaplains, as identified based on their DoD primary or duty occupation code of "chaplain," who were either:

- Active duty members of the Army, Navy, Marine Corps, and Air Force; OR
- Reserve component members of the Army National Guard, US Army Reserve, Navy Reserve, Marine Corps Reserve, Air National Guard, and US Air Force Reserve;¹

Fielding of the survey began September 19, 2014 and ended on October 29, 2014. Completed surveys were received from 3,041 eligible military chaplains representing a 59% weighted response rate. These survey responses were projected up to the full eligible active duty population of 5,131.

2. DMDC-RSSC uses "sampling" and "weighting" for their scientific surveys. Why are these methods used and what do they do?

Sampling and weighting allows survey data to be generalized accurately to the total population. This methodology meets industry standards used by government statistical agencies including the Census Bureau, Bureau of Labor Statistics, National Agricultural Statistical Service, National Center for Health Statistics, and National Center for Education Statistics. DMDC subscribes to the survey methodology best practices promoted by the American Association for Public Opinion Research (AAPOR).²

¹ The population excluded all retirees which consisted of: 1) individual ready reserve, 2) standby reserve, and 3) retired reserve.

² AAPOR's "Best Practices" state that, "virtually all surveys taken seriously by social scientists, policy makers, and the informed media use some form of random or probability sampling, the methods of which are well grounded in statistical theory and the theory of probability" (http://aapor.org/Best_Practices1/4081.htm#best3). DMDC has conducted surveys of the military and DoD community using stratified random sampling for over 25 years.

3. *Were sampling and weighting used in the 2014 QuickCompass of Military Chaplains (2014 QCMC)?*

The *2014 QCMC* was a census of all 5,160 military chaplains in the active duty and Reserve components. Data from the April 2014 Active Duty Master Edit File (ADMF) and the Reserve Components Common Personnel Data System (RCCPDS) were used to determine the survey frame. Auxiliary frame data was obtained from the April 2014 Unit Identification Code (UIC) Address File and the May 2014 Defense Enrollment Eligibility Reporting System (DEERS) & Reserve Address File. Chaplains became ineligible if they indicated in the survey or by other contact (e.g., telephone calls to the data collection contractor) that they were not in a Service/Reserve component as of the first day of the survey, September 22, 2014.

In order to ensure our estimates are generalizable to all military chaplains, DMDC-RSSC used weighting to accurately represent the full population. Data were weighted, using an industry standard process, to reflect the military chaplain population as of April 2014. Differences between the percentages of respondents and the full population for the reporting categories reflect differences in response rates. The weighting produces survey estimates of population totals, proportions, and means (as well as other statistics) that are representative of their respective populations. Unweighted survey data, in contrast, are likely to produce biased estimates of population statistics.

4. *Why was this survey a census rather than a sample?*

With a population size of 5,160, a census was required to ensure adequate responses to present survey results by the reporting categories. Taking a sample of the 5,160 military chaplains would not provide enough responses in these categories. With a census, all military chaplains in the population were included in the sample. All were contacted and invited to complete the survey and respondents were statistically weighted to estimate the population.

5. *The population size was 5,160, but DMDC weighted to a population of 5,131. Why is there a difference between these two population numbers?*

The starting population of 5,160 was adjusted after survey administration based on eligibility criteria determined as the chaplains took the survey. For example, while an individual may have been in the original population file as an active duty chaplain, by the time of survey administration, they may have retired thereby making them ineligible for the survey. The details of these occurrences are discussed in the *2014 QuickCompass of Military Chaplains Statistical Methodology Report* (see Appendix C).

6. *Is 59% a good response rate for a military survey?*

The current response rate for military surveys averages between 20-30%. The response rate for the *2014 QCMC* was much higher than response rates for other active duty and Reserve component surveys. Of note, DMDC has further advantage by maintaining the administrative record data (e.g., demographic data) on the full population. This rich data, rarely available to other survey organizations, is used to reduce bias associated with the weighted estimates and increase the precision and accuracy of estimates. DMDC knows who responds and does not

respond to the surveys and can adjust the weights accordingly. This important advantage improves the quality of estimates from DMDC surveys that other survey organizations rarely have.

That being said, DMDC is always concerned about whether those who do not respond to the survey are fundamentally different from those who do, potentially introducing bias into the results. To account for this, DMDC conducts nonresponse bias (NRB) analyses to identify potential areas of nonresponse bias, minimize impact, and inform future survey iterations. The NRB analysis showed little or no evidence of nonresponse bias for the 2014 QCMC (see Appendix D for the full NRB analysis).

7. What is a QuickCompass and how is it different from other surveys that DMDC administers?

QuickCompass surveys are fast-turnaround studies targeting special topics not included on larger DMDC surveys, due to timing, a targeted population, and/or content. *QuickCompass* surveys focus on key questions concerning specific personnel policies and concerns, unlike the *Status of Forces Surveys (SOFS)*, which study program evaluation and general quality of life issues. *QuickCompass* surveys are also fielded for approximately one month, or half the time of a typical *SOFS* survey, using mainly email communication (only one postal letter versus three to four in a *SOFS*), allowing DMDC to provide survey results to the client faster.

8. Where can I find reports on the 2014 QCMC or other surveys DMDC-RSSC has conducted?

DMDC provides publically available reports and tabulations of data on their website at: <https://www.dmdc.osd.mil/appj/dwp/surveys.jsp>

APPENDIX C

Statistical Methodology Report



Defense Research, Surveys, and Statistics Center (RSSC)

2014 QuickCompass of Military Chaplains

Statistical Methodology Report



Additional copies of this report may be obtained from:

Defense Technical Information Center

ATTN: DTIC-BRR

8725 John J. Kingman Rd., Suite #0944

Ft. Belvoir, VA 22060-6218

Or from:

<http://www.dtic.mil/dtic/order.html>

Ask for report by Report ID

**2014 QUICKCOMPASS OF MILITARY
CHAPLAINS:
STATISTICAL METHODOLOGY REPORT**

**Jeffrey Schneider and Eric Falk
DMDC**

**Defense Manpower Data Center
Defense Research, Surveys, and Statistics Center
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Acknowledgments

Defense Manpower Data Center (DMDC) is indebted to numerous people for their assistance with the *2014 QuickCompass of Military Chaplains*, which was conducted on behalf of the Military Personnel Policy (MPP) office within the Under Secretary of Defense for Personnel and Readiness. The survey program is conducted under the leadership of Dr. Paul Rosenfeld, Director, *Defense Research, Surveys, and Statistics Center* (RSSC).

RSSC's Statistical Methods Branch, under the guidance of David McGrath, Branch Chief, is responsible for the all statistical aspects of this survey, including, sampling, weighting, imputation, and the implementation of statistical hypothesis testing used in the survey program. The lead statistician was Jeff Schneider, RSSC, who developed the weights for this survey. Eric Falk, RSSC, supervised the sampling and weighting process, and provided consultation. Carole Massey provided the data processing support. Jeffrey Schneider and Eric Falk wrote this methodology report.

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2014 QUICKCOMPASS OF MILITARY CHAPLAINS: STATISTICAL METHODOLOGY REPORT

Introduction

This report describes the statistical methodologies for the *2014 QuickCompass of Military Chaplains (2014 QCMC)*. The first section describes the sample design and selection of the sample. The second section describes weighting and variance estimation. The third section describes the statistical tests used for the *2014 QCMC*. The final section describes the calculation of location, completion, and response rates for the full sample and population subgroups. Information about administration of the survey and detailed documentation of the survey dataset is found in the *2014 QuickCompass of Military Chaplains: Administration, datasets, and codebook* (DMDC, 2015).

Sample Design and Selection

Target Population

The *2014 QCMC* was designed to represent individuals meeting the following criteria:¹

- Military chaplains who are active duty members of the Army, Navy, Marine Corps, and Air Force
- Military chaplains who are Reserve component members of the Army National Guard, US Army Reserve, Navy Reserve, Marine Corps Reserve, Air National Guard, and US Air Force Reserve

Sampling Frame

The sampling frame consisted of 5,160 military chaplains determined from using both the April 2014 Active Duty Master Edit File (ADMF) and the April 2014 Reserve Components Common Personnel Data System (RCCPDS). Military chaplains were identified based on their Department of Defense (DoD) primary or duty occupation code. Auxiliary frame data was obtained from the following files:

- April 2014 Unit Identification Code (UIC) Address File and
- May 2014 Defense Enrollment Eligibility Reporting System (DEERS)
- May 2014 Reserve Address File.

In addition, after selecting the sample, RSSC performed additional checks to verify the member is still eligible. Any ineligible member in the sample was excluded from any mailings

¹ The population excluded all retirees which consisted of: 1) individual ready reserve, 2) standby reserve, and 3) retired reserve.

and notifications, this saves additional costs associated with the survey process. Using the May 2014 DEERS, fourteen sample members were identified as inactive.

Sample Design

The 2014 QCMC was a census of all eligible military chaplains. All chaplains were selected with certainty, or a probability of 1 (sampling weight was 1).

Sample Allocation

The total sample size of 2014 QCMC was a census of 5,160 military chaplains identified from the population frame (Sampling Frame section). The survey design was not formally stratified but key reporting domain variables were identified and used for weighting adjustments including poststratification. Table 1 shows the key reporting domains for this survey.

Table 1.
Key Reporting Domains

Variable	Variable Name	Levels
Service/Component	SVC_CD*COMP_CD	1 – Active Army 2 – Active Navy/Marine Corps 3 – Active Air Force 4 – Reserve Army 5 – Reserve Navy/Marine Corps 6 – Reserve Air Force 7 – National Guard Army 8 – National Guard Air Force
Paygrade Group	COFFICER	1 – O1-O3 2 – O4+
Chaplain’s Religion	CRELIGION	1 – Catholic 2 – Jewish 3 – Protestant 4 – Orthodox 5 – Other

Table 2 shows the 2014 QCMC population broken out by Service/Component and religious affiliation. Since the population was sampled with certainty (census), the population in this case is equivalent to the sample.

Table 2.
Population and Sample by Service/Component and Key Variables

	Total	Active Army	Active Navy/MC	Active Air Force	Reserve Army	Reserve Navy	Reserve Air Force	National Guard Army	National Guard Air Force
Total	5,160	1,570	798	472	782	232	318	699	289
Paygrade Group									
O1-O3	2,730	790	371	229	497	118	172	437	116
O4+	2,430	780	427	243	285	114	146	262	173
Religious Affiliation									
Catholic	336	96	52	56	30	3	32	32	35
Jewish	60	13	9	5	12	8	4	4	5
Protestant	4,261	1,360	652	400	637	92	275	609	236
Orthodox	49	14	11	9	5	1	1	4	4
Other	454	87	74	2	98	128	6	50	9

Weighting

Analytical weights for the 2014 QCMC were created to account for varying response rates among population subgroups. The sampling weight of 1 was first adjusted for nonresponse (eligibility and completion). The adjusted weights were then poststratified to match population totals and to reduce bias unaccounted for by the previous weighting steps.

Case Dispositions

Case dispositions were assigned to each sampled member for weighting based on eligibility for the survey and completion of the return. Execution of the weighting process as well as computation of response rates both depend on this classification. Case dispositions for weighting are determined using information from personnel records, 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 are resolved according to the order of the precedence given in Table 3.

The order of execution is critical to resolving case dispositions. For example, suppose a sample person refused the survey, with the reason it was too long; in the absence of any other information, the disposition would be “eligible nonrespondent” (SAMP_DC=8). If a proxy reported the sample person had been hospitalized and was unable to complete the survey, the disposition would be “ineligible” (SAMP_DC=2). The case dispositions for 2014 QCMC are shown in Table 3. Members of the sample became ineligible if they indicated in the survey or by

other contact (e.g., telephone calls to the data collection contractor) they were not in a Service/Reserve component as of the first day of the survey, September 22, 2014.²

Table 3.
Case Dispositions for Weighting

Case Disposition (SAMP_DC)	Information Source	Conditions	Sample Size
1. Record ineligible	Personnel record	Record ineligible – using the defense enrollment eligibility reporting system DEERS point-in-time extract (PITE) determined whether member sampled (associated with spouse) separated from the military, no record in DEERS, or passed away.	14
2. Ineligible by self- or proxy-report	Survey Control System (SCS)	Self or proxy reported that member was "Retired," "No longer employed by DoD," or "Deceased."	2
3. Ineligible by survey self-report	Survey eligibility questions	Deemed ineligible based on survey eligibility questions (Q1 and Q2)	13
4. Eligible, complete response	Item response rate	Item response is at least 50%	3,041
5. Eligible, incomplete response	Item response rate	Survey isn't blank but item response is less than 50%	18
8. Active refusal	SCS	Reason survey is blank is "refused-too long", "refused-inappropriate/intrusive", "refused-other", "ineligible-other", "unreachable at this address", "refused by current resident", "concerned about security/confidentiality."	20
9. Blank return	SCS	Remaining blank surveys	18
10. PND	SCS	Nonlocatable	0
11. Non-respondent	Remainder	No response	2,034
Total			5,160

Table 4 shows the 3,041 complete eligible respondents by the key reporting domains: 1) Service/Component, 2) paygrade group, and 3) religious affiliation.

² There were two eligibility questions on the survey. Military chaplains needed to be in either the active duty or Reserve component (Q1. In what Service were you on active duty on September 22, 2014 or Q2. Of which Reserve component were you a member on September 22, 2014).

Table 4.
Complete Eligible Respondents by Key Variables

Stratification Variable	Sample	Complete Eligible
Total	5,160	3,041
Active		
Army	1,570	1,051
Navy/Marine Corps	798	481
Air Force	472	341
Reserve Component		
Reserve Army	782	361
Reserve Navy/Marine Corps	232	108
Reserve Air Force	318	155
National Guard Army	699	375
National Guard Air Force	289	169
Paygrade Group		
O1-O3	2,730	1,480
O4+	2,430	1,561
Religious Affiliation		
Catholic	336	188
Jewish	60	33
Protestant	4,261	2,545
Orthodox	49	34
Other	454	241

Nonresponse Adjustments and Final Weights

After case dispositions were resolved, the sampling weights were adjusted for nonresponse. First the sampling weights for cases of known eligibility (SAMP_DC = 2, 3, 4, 5) were adjusted to account for cases of unknown eligibility (SAMP_DC = 8, 9, 10, 11). Second, the eligibility adjusted weights for eligible respondents (SAMP_DC = 4) were adjusted to account for eligible sample members who had not returned a completed survey (SAMP_DC = 5).

Weighting adjustment factors for eligibility and completion were computed as the inverse of model-predicted probabilities. First, a logistic regression model was used to predict the probability of eligibility for the survey (known eligibility vs. unknown eligibility). A second logistic regression model was used to predict the probability of response among eligible sample members (complete response vs. nonresponse). CHAID (Chi-squared Automatic Interaction Detection), a decision tree technique based on Bonferroni testing, was used to determine the best predictors for each logistic model. The models were weighted for both eligibility and completion. Predictors included the following population characteristics: Service/Component, reserve category, gender, paygrade group, age, religion, family status, and education.

Table 5 shows the variables and the levels used for eligibility and completion adjustment to the weights.

Table 5.
Variables Used for the Eligibility and Completion Adjustments

Variable	Variable Name	Levels
Service/Component	CSERVICE	1 – Active Army
		2 – Active Navy/Marine Corps
		3 – Active Air Force
		4 – Reserve Army
		5 – Reserve Navy
		6 – Reserve Air Force
		7 – National Guard Army
		8 – National Guard Air Force
Reserve Category	CRSV_CAT	1 – Active Duty
		2 – Selective Reserve
		3 – AGR/Military Technician
Gender	SEX_CD	1 – Male
		2 – Female
Paygrade Group	COFFICER	1 – O1- O3
		2 – O4+
Age	CAGE	1 – < 40 Years
		2 – 40 - 49 Years
		3 – >= 50 Years
Religion	CRELIGION2	1 – Protestant
		2 – Other
Family Status	CFAMSTAT	1 – Married
		2 – Not Married
Education Level	CEDUC	1 – Less than Professional
		2 – Professional Degree and Above

Finally, the weights were poststratified to match population totals and to reduce bias unaccounted for by the previous weighting adjustments. Poststratification cells were defined by the cross-classification of Service/Component and paygrade group. Within each post-stratification cell, the non-response-adjusted weights for eligible respondents and self-reported ineligible (SAMP_DC = 2, 3, 4) were adjusted to match population counts. Table 6 shows the two variables used for poststratification.

Table 6.
Variables used for Post-stratification

Variable	Variable Name	Levels
Service/Component	SVC_CD*COMP_CD	1 – Active Army 2 – Active Navy 3 – Active Air Force 4 – Reserve Army 5 – Reserve Navy 6 – Reserve Air Force 7 – National Guard Army 8 – National Guard Air Force
Paygrade Group	COFFICER	1 – O1-O3 2 – O4+

Table 7 provides summaries of the distributions of the sampling weights (all are 1), intermediate weights, final weights, and adjustment factors by eligibility status. As described earlier, eligible respondents are those individuals who were 1) eligible to participate in the survey, and 2) also completed 50% of the survey items asked of all respondents (SAMP_DC=4). Self/Proxy ineligible are those determined to be ineligible (SAMP_DC = 2 or 3), while the nonrespondents include the incomplete eligibles, refusals, returned blank surveys, unreachables and other nonrespondents (SAMP_DC = 5 through 12). Record ineligible individuals (SAMP_DC=1) are those who were not eligible to participate in the survey according to administrative records; no final weights were computed for these cases.

Table 7.
Distribution of Weights and Adjustment Factors by Eligibility Status

Eligibility Status	Statistic	Sampling Weight	Eligibility Status Adjusted Weight	Complete Eligible Response Adjusted Weight	Final Weight With Non-response and Poststratification Factors	Eligibility Status Factor	Complete Eligible Response Factor	Poststratification Factor
Eligible Respondents	N	3,041	3,041	3,041	3,041	3,041	3,041	3,041
	MIN	1.00	1.24	1.25	1.15	1.24	1.01	0.92
	MAX	1.00	3.32	3.34	3.41	3.32	1.01	1.15
	MEAN	1.00	1.67	1.68	1.69	1.67	1.01	1.00
	STD	0.00	0.40	0.40	0.41	0.40	0.00	0.04
Self/Proxy Ineligibles	CV	0.00	0.24	0.24	0.24	0.24	0.00	0.04
	N	15	15	15	15	15	0	15
	MIN	1.00	1.24	1.24	1.19	1.24	.	0.92
	MAX	1.00	3.32	3.32	3.39	3.32	.	1.15
	MEAN	1.00	1.95	1.95	1.95	1.95	.	1.00
STD	0.00	0.55	0.55	0.56	0.55	.	0.06	

Eligibility Status	Statistic	Sampling Weight	Eligibility Status Adjusted Weight	Complete Eligible Response Adjusted Weight	Final Weight With Non-response and Poststratification Factors	Eligibility Status Factor	Complete Eligible Response Factor	Poststratification Factor
	CV	0.00	0.28	0.28	0.29	0.28	.	0.06
Non-Respondents	N	2,090	2,090	2,090	2,090	2,090	18	0
	MIN	1.00	0.00	0.00	0.00	0.00	0.00	.
	MAX	1.00	3.32	0.00	0.00	3.32	0.00	.
	MEAN	1.00	0.02	0.00	0.00	0.02	0.00	.
	STD	0.00	0.17	0.00	0.00	0.17	0.00	.
	CV	0.00	11.04	.	.	11.04	.	.
Record Ineligibles	N	14	14	14	14	0	0	0
	MIN	1.00	1.00	1.00	0.00	.	.	.
	MAX	1.00	1.00	1.00	0.00	.	.	.
	MEAN	1.00	1.00	1.00	0.00	.	.	.
	STD	0.00	0.00	0.00	0.00	.	.	.
	CV	0.00	0.00	0.00

Table 8 displays the sums of sampling weights, intermediate weights (eligibility and completion), and final weights by eligibility status.

Table 8.
Sum of Weights by Eligibility Status

Eligibility Category	Sum of Sampling Weights	Sum of Eligibility Status Adjusted Weights	Sum of Complete Eligible Response Adjusted Weights	Sum of Final Weights With Non-response and Poststratification Adjustments
1-Eligible weighted	3,041	5,084	5,114	5,131
2-Ineligible weighted	15	29	29	29
3-Non-response unweighted	2,090	33	0	0
4-Record Ineligible unweighted	14	14	14	0
Total	5,160	5,160	5,160	5,160

Variance Estimation

Analysis of the 2014 *QCMC* data required a variance estimation procedure that accounted for the weighting procedures. The final step of the weighting process was to define strata for variance estimation by Taylor series linearization. The 2014 *QCMC* variance estimation strata corresponded closely to the three key domains (Service/Component, paygrade group, and religious affiliation); however, it was necessary to collapse some sampling strata containing fewer than 25 complete eligible responses with non-zero final weights with similar strata. Thirty one variance estimation strata were defined for the 2014 *QCMC*. In several cases the paygrade groups and Services were combined; but religious affiliation was never combined.

Multiple Comparisons

When statistically comparing groups (e.g., Army vs. Navy estimates of times prayed outside of a religious service), a statistical hypothesis whether there are no differences (null hypothesis) versus there are differences (alternative hypothesis) is tested. DMDC uses two-independent samples t-tests for its statistical tests. The conclusions are usually based on the p-value associated with the test-statistic. If the p-value is less than the critical value then the null hypothesis is rejected. Any time a null hypothesis is rejected (conclude that estimates are significantly different), it is possible this conclusion is incorrect. In reality, the null hypothesis may have been true, and the significant result may have been due to chance. A p-value of 0.05 means there is a five percent chance of finding a difference as large as the observed result if the null hypothesis were true.

In survey research there is interest in conducting multiple comparisons. For example, 1) testing whether times prayed outside of a religious service among Army chaplains is the same as times prayed outside of a religious service for all other Services, and 2) testing whether times prayed outside of a religious service among Navy chaplains is the same as times prayed outside of a religious service for all other Services and so on. When performing multiple independent comparisons on the same data the question becomes: “Does the interpretation of the p-value for a single statistical test hold for multiple comparisons?” If 200 independent statistical (significance) tests were conducted at the 0.05 significance level, and the null hypothesis is supported for all, 10 of the tests would be expected to be significant at the p-value < 0.05 level simply due to chance. These 10 tests would have incorrectly been concluded as statistically significant—known as false positives or false discoveries. When a single significance test is conducted, the error rate—the probability of false discoveries—is the p-value itself. When more than one significance test is conducted, the probability of false discoveries increases, i.e., the more tests that are conducted the greater the number of false discoveries.

This problem is known in the statistical literature as the “multiple comparisons problem.” Therefore, it is important to control the false discoveries when performing multiple independent tests to reach more accurate conclusions. Numerous techniques have been developed to control the false positive error rate associated with conducting multiple statistical testing (multiple comparisons). It should be noted that there is no universally accepted approach for dealing with the problem of multiple comparisons.

For this report, the method used to control for false discoveries is known as False Discovery Rate correction (FDR) developed by Benjamini and Hochberg (1995). FDR is defined as the expected percentage of erroneous rejections among all rejections. The idea is to control the false discovery rate which is the proportion of "discoveries" (significant results) that are actually false positives. The approach can be summarized as follows:

- determine the number of comparisons (tests) of interest, call it m ;
- determine the tolerable False Discovery Rate (FDR Rate), call it α ;
- calculate the p-value for each statistical test;
- sort the individual p-values from smallest to largest and rank them, call the rank k .

For each ranked p-value calculate the FDR-adjusted *alpha* (threshold) which is defined as $\frac{k * \alpha}{m}$

Determine the cutoff delineating statistically significant results from non-significant results in the sorted file as follows: Look for the maximum rank (k) such that the ordered p-value is less than the FDR-adjusted *alpha* (i.e., look for the maximum k after which the p-value becomes greater than the threshold), call this maximum k the cutoff. Any comparison (p-value) with rank less than the cutoff is considered statistically significant.

DMDC implemented the FDR multiple comparison corrections to control the expected rate of false discoveries (Type I errors) at 0.05. For the current estimates DMDC performed 1,138 separate statistical tests and 379 were statistically significant.

Location, Completion, and Response Rates

Location, completion, and response rates were calculated in accordance with the recommendations of the American Association for Public Opinion Research (AAPOR, 2011 Standard Definitions), which estimates the proportion of eligible respondents among cases of unknown eligibility.

The *location rate* (LR) uses AAPOR standard formula for the contact rate (CON2) and is defined as

$$LR = \frac{(I + P) + R + O}{(I + P) + R + NC + e(UO)} = \frac{\text{adjusted located sample}}{\text{adjusted eligible sample}} = \frac{N_L}{N_E}$$

The *completion rate* (CR) uses AAPOR standard formula COMR and is defined as

$$CR = \frac{(I + P)}{(I + P) + (R + NC + O)} = \frac{\text{usable responses}}{\text{adjusted located sample}} = \frac{N_R}{N_L}$$

The *response rate* (RR) uses AAPOR standard formula RR4 and is defined as

$$RR = \frac{(I + P)}{(I + P) + (R + NC + O) + e(UH + UO)} = \frac{\text{usable responses}}{\text{adjusted eligible sample}} = \frac{N_R}{N_E}$$

Where

I = Fully complete responses according to RR4 (> 80% complete)

P = Partially complete responses according to RR4 (50 – 80% complete)

R = Refusal and break-off according to RR4 (< 50% complete)

NC = Non-contact

O = Other

e(UO) = Estimated eligibility of cases unknown

N_L = Adjusted located sample

N_E = Adjusted eligible sample

N_R = Usable responses

Table 9 shows the corresponding sample disposition codes associated with the response categories.

Table 9.
Disposition Codes for Response Rates

Response Category	SAMP_DC Values
Eligible Sample	4, 5, 8, 9, 10, 11
Located Sample	4, 5, 8, 9, 11
Eligible Responses	4
Not Returned	11
Eligibility Determined	2, 3, 4, 5, 8, 9
Self Report Ineligible	2, 3

Ineligibility Rate

The ineligibility rate (IR) is defined as the following and needs to be calculated for both weighted and unweighted to be applied to Table 9:

$$IR = \text{Self Report Ineligible/Eligibility Determined.}$$

Estimated Ineligible Postal Non-Deliverable/Not Located Rate

The estimated ineligible postal non-deliverable or not located (IPNDR) is defined as:

$$IPNDR = (\text{Eligible Sample} - \text{Located Sample}) * IR.$$

Estimated Ineligible Nonresponse

The estimated ineligible nonresponse (EINR) is defined as:

$$EINR = (\text{Not Returned}) * IR.$$

Adjusted Location Rate

The adjusted location rate (ALR) is defined as:

$$ALR = (\text{Located Sample} - \text{EINR}) / (\text{Eligible Sample} - \text{IPNDR} - \text{EINR}).$$

Adjusted Completion Rate

The adjusted completion rate (ACR) is defined as:

$$ACR = (\text{Eligible Responses}) / (\text{Located Sample} - \text{EINR}).$$

Adjusted Response Rate

The adjusted response rate (ARR) is defined as:

$$ARR = (\text{Eligible Responses}) / (\text{Eligible Sample} - \text{IPNDR} - \text{EINR}).$$

Weighted sampled counts used to compute the overall response rates are shown in Table 10.

Table 10.
Location, Completion, and Response Rates

Type of Rate	Computation	Unweighted %	Weighted %
Location	Adjusted located sample/Adjusted eligible sample	100.0	100.0
Completion	Usable responses/Adjusted located sample	59.4	59.4
Response	Usable responses/Adjusted eligible sample	59.4	59.4

Weighted location, completion, and response rates for the full sample by the stratification variables are shown in Table 11.

Table 11.
Rates for Full Sample and Key Reporting Domains

Variable	Domain	Sample	Eligible Response	Sum of Weights	Located %	Completed %	Response %
Sample	Sample	5,160	3,041	5,160	100.00	59.38	59.38
Component	Active Army	1,570	1,051	1,570	100.00	67.24	67.24
	Active Navy	798	481	798	100.00	60.81	60.81
	Active Air Force	472	341	472	100.00	72.92	72.92
	Reserve Army	782	361	782	100.00	46.42	46.42
	Reserve Navy	232	108	232	100.00	47.41	47.41
	Reserve Air Force	318	155	318	100.00	49.36	49.36
	National Guard Army	699	375	699	100.00	54.21	54.21
	National Guard Air Force	289	169	289	100.00	59.15	59.15
Paygrade Group	O1-O3	2,730	1,480	2,730	100.00	54.60	54.60
	O4+	2,430	1,561	2,430	100.00	64.77	64.77
Religion	Catholic	336	188	336	100.00	56.54	56.54
	Jewish	60	33	54	100.00	55.93	55.93
	Protestant	4,261	2,545	4,266	100.00	60.14	60.14
	Orthodox	49	34	54	100.00	71.43	71.43
	Other	454	241	450	100.00	53.54	53.54

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**Defense Research, Surveys,
and Statistics Center (RSSC)**



APPENDIX D

Nonresponse Bias Study



2014 QuickCompass of Military Chaplains Survey Nonresponse Bias Analysis

Introduction

The Defense Research, Surveys, and Statistics Center (RSSC) at the Defense Manpower Data Center (DMDC) conducted three studies to assess the possible presence of nonresponse bias (NRB) in estimates from the *2014 QuickCompass of Military Chaplains (2014 QCMC)*. The main objectives of the survey were to 1) assess whether restrictions placed on prayers offered in a public or non-religious setting have prevented military chaplains from exercising the tenets of their faith as prescribed by their faith group and 2) of those restrictions, which of them have had an adverse impact on the ability of military chaplains to fulfill their duties to minister to members of the Armed Forces and their dependents.

The objective of this analysis was to assess the possible extent of NRB on the results of the survey. The level of NRB can vary for every question on the survey, but this analysis focused on questions Q7d¹ and Q12² which covered potentially sensitive topics related to chaplains on “supervisor support” and “effect on chaplain’s career.”

NRB occurs when survey respondents are systematically different from the nonrespondents. NRB can occur with either high or low survey response rates. However, the decrease in survey response rates in the past decade has resulted in a greater focus on the potential for NRB. This analysis is in line with U.S. government guidelines developed by the Office of Management and Budget (OMB) that NRB analyses should be conducted when response rates are below 80% (OMB, 2006). The weighted response rate for *2014 QCMC* was 59% (AAPOR RR3, 2011) which was much higher than the typical response rates of 20%-30% obtained on other DoD surveys conducted by RSSC

To assess the level of NRB in the *2014 QCMC*, RSSC used the following three methods:

1. Compare the composition of survey respondents with demographics from the population of military chaplains. For the *2014 QCMC*, RSSC conducted a census of all eligible military chaplains in the active duty and Reserve component. The composition analysis assesses whether observable characteristics (e.g., rank, religion) for the survey respondents were similar to the demographics of the population of military chaplains. **RSSC found the survey respondent composition was very similar to the survey population—more so than for other RSSC surveys of the military population. Similar respondent and nonrespondent compositions are evidence the presence of NRB is less likely.**
2. Analyze item missing data for key questions. The *2014 QCMC* had several sensitive questions where respondents may drop-off (e.g., quit the survey) due to the nature of the question. If there are spikes in the number of respondents who skip questions, this could create NRB if

¹ Q7d. PRYREXPD: How much do you agree or disagree with the following statements considering your experience with praying at command ceremonies or public events outside of a religious service? My supervisor supports my decision to decline participation in settings that conflict with my tenets of faith.

² Q12. PRADVIMP: Based on your training and experience, do you believe declining to pray at a command ceremony or public event outside of a religious service will adversely impact a chaplain’s career?

respondents that skipped a question have systematically different opinions than those that answered the question. **RSSC found there was no spike in survey respondents who dropped off in any discernible pattern to indicate NRB.**

3. Use late respondents as a proxy for nonrespondents. If the field period was shortened or fewer contact attempts were used, a subset of the actual survey respondents would have been nonrespondents. It is hypothesized that late respondents may be more similar to nonrespondents than the early respondents. The *2014 QCMC* respondents were divided into early (proxy for respondents) and late (proxy for nonrespondents) and separately weighted to the population of military chaplains. The early and late respondents had very similar responses to key questions. **RSSC's analysis of late respondents provides no systematic evidence of NRB on the estimates for key questions.**

Three additional factors regarding the *2014 QCMC* NRB were considered:

1. The *2014 QCMC* survey has a much higher response rate than most military surveys. Military chaplains are officers, and officers have much higher response rates than enlisted do on military surveys. In addition, the subject matter of the survey directly relates to their position of military chaplain, therefore the salience of the survey topic likely contributed to the high response rate. Response rates on RSSC military surveys conducted in 2014 typically ranged between 20-30%, while the *2014 QCMC* response rate was 59%. Although NRB can occur with any level of response rates, the high response rate reduces the likelihood that NRB would have a large impact on *2014 QCMC* estimates.
2. The *2014 QCMC* had fewer questions than most RSSC surveys. The average amount of time spent per complete respondent was about 14 minutes compared with 44 minutes for the *2014 Status of Forces Survey of Active Duty Members (2014 SOFS-A)*. The shorter survey may have also contributed to higher response rates and fewer drop-offs.
3. Weighted estimates from RSSC surveys should have less NRB than other surveys with similar response rates because RSSC uses military administrative data for both survey respondents and survey nonrespondents to make the weights more precise.

2014 QCMC Survey Design

The *2014 QCMC* was designed to capture opinions and experiences of the military chaplains within active duty and Reserve components. The population frame consisted of 5,160 military chaplains (2,840 active duty and 2,320 Reservists). RSSC identified chaplains by their occupation code; however, the survey sponsor also identified a small number of high ranking chaplain officers that did not have a primary occupation code of chaplain. The population frame excluded all retired military chaplains. The *2014 QCMC* was a census, and all of the 5,160 military chaplains identified on the population frame were selected for the sample. Complete eligible responses were received from 3,041 chaplains. The statistical methodology report (DMDC, 2015a) provides more information regarding the sampling, weighting, and variance estimation, and the tabulation volume (DMDC, 2015b) provides detailed results for the demographic groups.

Respondent Composition Analysis

If the composition of the survey respondents is very different than the composition of the survey sample (e.g., 30% of chaplains are active Army), there is an increased risk of NRB. RSSC evaluated the composition of the 2014 *QCMC* by exploring differences in administrative subgroups. Because the 2014 *QCMC* was a census, the population and the sampling frame are the same. Differences between the compositions of survey respondents relative to the sampling frame on observable characteristics (e.g., paygrade group, religion) may indicate there are also differences on unobservable characteristics. RSSC accounts for differences on observable characteristics during weighting, but can only account for unobservable characteristics (e.g., religious opinions) if they are correlated with observable characteristics.

Table 1 shows the composition of Service/Component, paygrade group, gender, and religion by population, respondent/nonrespondents, and weighted estimates. Overall, the 2014 *QCMC* respondents and nonrespondents look more similar on these key demographics than other DoD surveys conducted by RSSC. The distribution of the respondents (and nonrespondents) looks very similar to the chaplain population with the primary difference being active duty chaplains responded at higher rates than Reservists. For instance, the respondent column is generally several percentage points higher for the active chaplains, where conversely the Reservists are lower (less represented in the respondents). In addition, senior officers had higher response rates than junior officers. While small differences exist, the similarities of column h and column b shows that survey weighting effectively accounts for these observable characteristics. Survey weighting also reduces any biases associated with unobservable differences between survey respondents and the population that are correlated with these characteristics. The assessment of the composition of respondents relative to the population provides little evidence of NRB in 2014 *QCMC* estimates.

Table 1.
2014 QCMC Population, Sample, Respondent, and Nonrespondent Composition

Demographic	Population/Sample		Respondents		Nonrespondents		Weighted Estimates	
	Frequency (a)	Percent (b)	Frequency (c)	Percent (d)	Frequency (e)	Percent (f)	Frequency (g)	Percent (h)
Total	5,160	100	3,041	100	2,090	100	5,160	100
Service/Component								
Active Army	1,570	30	1,051	35	513	25	1,570	30
Active Navy	798	15	481	16	310	15	798	15
Active Air Force	472	9	341	11	127	6	472	9
Reserve Army	782	15	361	12	419	20	782	15
Reserve Navy	232	5	108	4	122	6	232	5
Reserve Air Force	318	6	155	5	161	8	318	6
National Guard Army	699	14	375	12	320	15	699	14
National Guard Air Force	289	6	169	6	118	6	289	6
Paygrade Group								
O1-O3	2,730	53	1,480	49	1,238	59	2,730	53
O4+	2,430	47	1,561	51	852	41	2,430	47
Gender								
Male	4,840	94	2,876	95	1,936	93	4,859	94
Female	320	6	165	5	154	7	301	6
Religion								
Protestant	4,261	83	2,545	84	1,694	81	4,266	83
Catholic	336	7	188	6	146	7	336	7
Jewish	60	1	33	1	26	1	54	1
Orthodox	49	1	34	1	14	1	54	1
Other	454	9	241	8	210	10	450	9

Drop-off Analysis

RSSC also analyzed item missing data for all questions on the 2014 QCMC to investigate whether some respondents refuse to answer questions or quit the survey (i.e., drop-off) because of the sensitivity of the questions. If the decision to refuse to answer the question is not random (i.e., those who avoid the “supervisor support” question have different opinions than complete respondents), then a source of NRB may exist. RSSC cannot directly test this possibility because the opinions of a respondent that skips the question or quits the survey are unknown; however, unusual item nonresponse patterns or high item nonresponse may indicate possible NRB.

RSSC analyzed patterns of missing data in the 2014 QCMC instrument using a drop-off analysis technique. Drop-off analysis shows the last question a survey respondent answered on the survey. For example, if a respondent answered Q1 to Q5 and quit, the drop-off analysis would place the respondent in the frequency count at Q5. Drop-off analysis does not count for standard item missing data (e.g., a respondent skips one question, accidentally or on purpose, but returns to answer further questions). For example, if a respondent answered Q1 to Q5, skipped to Q7, answered Q7 to Q10, and then

answered no further questions, the drop-off analysis would include the respondent in the frequency count for Q10.

Table 2 presents the 2014 QCMC drop-offs. Most respondents (99%) complete the survey from start to finish, dropping off at the final question, Q15. Prior to the analysis, RSSC subject matter experts identified questions 7d and 12 as the two most important questions on the survey. These two questions are defined here.

7d. How much do you agree or disagree with the following statements considering your experience with praying at command ceremonies or public events outside of a religious service? My supervisor supports my decision to decline participation in settings that conflict with my tenets of faith

- Strongly agree (5)*
- Agree (4)*
- Neither agree nor disagree (3)*
- Disagree (2)*
- Strongly disagree (1)*

Q12. Based on your training and experience, do you believe declining to pray at a command ceremony or public event outside of a religious service will adversely impact a chaplain's career?

- Yes (2)*
- No (1)*

These two questions showed no systematic increase in drop-offs. For question 7d, three people dropped off and for question 12 six people dropped off. These numbers are consistent with nearby questions. The number of drop offs in this survey is lower than other RSSC surveys, and this analysis shows no evidence of NRB.

Table 2.
QCMC1401 Drop-Offs (Last Question Answered)

Last Question Answered	Number of Drop-Offs	Comment
Q1 or Q2	13	Depending on whether respondents were Active or Reserve they received different eligibility questions (Q1 was for Active Only, Q2 was for Reserve only) they are combined as one item here.
Q3	3	
Q4	3	
Q5	2	Respondents that answer “No” to this question skip to Q10.
Q6	4	
Q7	3	Key question identified – no noticeable drop-off difference.
Q8	1	
Q9	0	
Q10	2	Respondents that answered “No” to question 5 continue the survey here
Q11	1	
Q12	6	Key question identified – no noticeable drop off difference.
Q13	7	
Q14	8	
Q15	3,019	This is the last official question on the survey. There are two open-ended items that follow that are not considered here.

Table 3 shows the missing data rates by two key questions for complete eligible respondents only. The table shows the percent missing for these key questions is less than 1 percent. Given the very high item completion rate, RSSC’s analysis of missing data shows no evidence of NRB.

Table 3.
Missing Data Analysis by Question

Question	Variable	Potential Responses	Actual Responses	Percent Missing
Q7d. My supervisor supports my decision to decline participation in settings that conflict with my tenets of faith.	PRYREXP	2,956 ^a	2,946	0.3
Q12. Do you believe declining to pray at a command ceremony or public event outside of a religious service will adversely impact a chaplain’s career	PRADVIMP	3,041	3,032	0.3

^a Eighty-Five respondents were skipped out of Q7d based on their response to Q5 and resumed the survey at Q10; this explains the difference in ‘Potential Responses’ between Q7d and Q12.

Late Respondents

Survey researchers have observed that if the field period were shortened or fewer contact attempts were used, a subset of survey respondents would have been nonrespondents, and they have hypothesized that these late respondents may be more similar to nonrespondents than the early respondents. This hypothesis is called the “continuum of resistance” model (Lin & Schaeffer, 1995). Although results from studies testing this model have been mixed (Groves & Peytcheva, 2008); analysis of late respondents is still a common practice in NRB studies.

RSSC evaluated whether early and late respondents to the 2014 QCMC survey reported different answers to the key questions from Table 3. RSSC conducted this analysis 1) unweighted and 2) weighted by a new set of weights specific to this analysis (late weights). The late weights separately weight the early respondents and late respondents to the full chaplain population as if they were the only respondents to the survey. In other words, these weights remove the effects of underlying demographic composition and make differences between the two subgroups related only to being an early versus late respondent.

To define early and late respondents, we divided the five week field period (September 22 through October 28, 2014) into two parts, treating respondents from the first three weeks (September 22 through October 12) as early respondents and the final two weeks (October 13 through October 28) as late respondents. A respondent was a military chaplain who completed a survey and was eligible. Nonrespondents included incomplete eligible, refusals, returned a blank survey, and nonrespondents. The 2,747 early respondents and 294 late respondents were both weighted up to the total military chaplains. Table 4 shows the demographic composition for early respondents, late respondents, and nonrespondents by Service/Component, paygrade, gender, and religious affiliation.

Table 4.
Composition of Sample for Early, Late, and Nonrespondents

Demographic	Early Respondents		Late Respondents		Nonrespondents	
	Frequency (a)	Percent (b)	Frequency (c)	Percent (d)	Frequency (e)	Percent (f)
Total	2,747	100	294	100	2,090	100
Service/Component						
Active Army	947	34	104	35	513	25
Active Navy	449	16	32	11	310	15
Active Air Force	318	12	23	8	127	6
Reserve Army	324	12	37	13	419	20
Reserve Navy	86	3	22	7	122	6
Reserve Air Force	132	5	23	8	161	8
National Guard Army	341	12	34	12	320	15
National Guard Air Force	150	5	19	6	118	6
Paygrade						
O1-O3	1,325	48	155	53	1,238	59
O4+	1,422	52	139	47	852	41
Gender						
Male	2,604	95	272	93	1,936	93
Female	143	5	22	7	154	7
Religion						
Protestant	2,308	84	237	81	1,694	81
Catholic	169	6	19	6	146	7
Jewish	27	1	6	2	26	1
Orthodox	32	1	2	1	14	1
Other	211	8	30	10	210	10

The 2014 QCMC early and late respondents look similar. However, the late respondents appear to look slightly more like the nonrespondents than do the early respondents, and therefore the late respondents may serve as an adequate proxy for nonrespondents in this study. For example, O1-O3 make up 59% of the nonrespondents compared to 53% for late respondents (early respondents were 48%)³. Although the magnitude is small, the differences between early and late respondents could be a source of NRB if the two groups answered differently on survey questions, which we discuss below.

Table 5 displays the results of the two key questions broken out by early and late respondents for their weighted and unweighted estimates. Table 5 shows the estimates from the two populations are virtually identical and if any NRB exists, it appears to be minimal.

³ In only 3 of the 17 rows in Table 4, the early respondents look more similar to the nonrespondents than do the late respondents (active Army, active Navy, and Jewish). E.g., active Army makes up 34 percent of the early respondents and 35 percent of the late respondents. Since they make up 25 percent of the nonrespondents, the early respondents in this case are closer to the nonrespondents.

Table 5.
Comparison of Estimates for Key Questions from Early and Late Respondents

Question	Variable	Time Period	Respondents	Unweighted	Weighted Estimate
Q7d. My supervisor supports my decision to decline participation in settings that conflict with my tenets of faith.	PRYREXP	Early	2,667	4.12	4.12 (SE = 0.02)
		Late	279	4.10	4.10 (SE = 0.06)
Q12. Do you believe declining to pray at a command ceremony or public event outside of a religious service will adversely impact a chaplain's career	PRADVIMP	Early	2,740	1.52	1.52 (SE = 0.01)
		Late	292	1.51	1.51 (SE = 0.03)

Note: The number of respondents in this table differs from the number of survey respondents due to item missing data for these questions. Note that none of the comparisons are statistically different.

Conclusion

RSSC's three analyses found little evidence of NRB in the 2014 QCMC estimates. Furthermore, the 2014 QCMC results are at less risk of being impacted by NRB because of the high response rate. RSSC's NRB analyses were strengthened because many administrative data were available for the military chaplains.

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