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Navy Promotion Decision-Making

June 2024

LT Ashely A. Corbett, USN

Thesis Advisors: Dr. Erik Helzer, Associate Professor
Dr. Marigee Bacolod, Associate Professor

Department of Defense Management

Naval Postgraduate School

Prepared for the Naval Postgraduate School, Monterey, CA 93943.

ACQUISITION RESEARCH PROGRAM
DEPARTMENT OF DEFENSE MANAGEMENT
NAVAL POSTGRADUATE SCHOOL

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ABSTRACT

U.S. Navy officer selection boards operate in a complex decision-making environment, where cognitive challenges such as information overload and decision fatigue can lead to errors and biases in the promotion process. This thesis aims to identify these cognitive pain points and offer targeted recommendations to improve the selection of the most qualified officers for leadership positions. Through an analysis grounded in ecological and psychological heuristics research and informed by comparisons with other military services and industry best practices, this study proposes three key strategies. The first is to automate parts of the initial record review process to reduce administrative burden and cognitive load on board members. Second is the implementation of a standardized briefing template to ensure consistency and mitigate biases during record reviews. The third recommendation is to restructure board days to include regular breaks and avoid decision fatigue. These recommendations seek to enhance the transparency and efficiency of the Navy's officer selection board process, leading to more merit-based promotions that better align with Get Real, Get Better principles.

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LIST OF ACRONYMS AND ABBREVIATIONS

CAPT	Captain
CDR	Commander
DOPMA	Defense Officer Personnel Management Act (DOPMA)
EMPRS	Electronic Military Personnel Record System
FITREP	Fitness Report
GRGB	Get Real, Get Better
LCDR	Lieutenant Commander
OMPF	Officer Military Personnel File
OSR	Officer Summary Record
PSR	Performance Summary Record
RSCA	Reporting Senior's Cumulative Average
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy

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I. INTRODUCTION

A. MOTIVATION

In pursuit of excellence and continuous improvement, the U.S. Navy (USN) has embraced a mindset called 'Get Real, Get Better' (GRGB), urging leaders to prioritize transparency and adopt a culture of self-assessment and self-correction (Department of the Navy, n.d.). This ethos drove former Chief of Naval Operations, Admiral Mike Gilday, to form a task group, Task Force One Navy, to identify inequality challenges across the USN. Task Force One Navy's final report to Admiral Gilday included over 60 recommendations on ways to confront barriers to sailor equality with the goal of enhancing Navy readiness (Department of the Navy, 2021). One of the many recommendations made included a line of effort focused on reviewing and updating talent management processes to assess how well the current evaluation, promotion, and advancement systems align with the GRGB principles.

B. PROBLEM STATEMENT

The Chief of Naval Operations assigned Navy Personnel Command with the crucial task of updating talent management processes, many elements of which haven't been revamped since the 1990s (Department of the Navy, 2021). In response, the Talent Management Center of Excellence (PERS-00K) at Navy Personnel Command, initiated the Performance Evaluation Transformation, aimed at modernizing evaluation processes to put more emphasis on merit over seniority, and implementing objective standards and multi-source assessment methods to provide feedback to its sailors (Department of the Navy, 2021). In addition to assessing the effectiveness of evaluations, reviewing the selection board process has also become relevant. Despite expectations of impartiality, Task Force One Navy found indications of bias in selection boards, which threatens the Navy's ability to retain and support the advancement of its top-performing sailors (Department of the Navy, 2021).

To confront these issues, Navy Personnel Command has sponsored several ongoing projects including the research team at the Naval Postgraduate School to analyze how

selection board members are processing the information they are being presented and enhance the alignment of the current decision support tool with GRGB principles. Informal observations of FY-22 selection boards suggest that current practices in selection boards may impose cognitive load on decision-makers altering fair assessments. Additionally, heuristics, or mental shortcuts, and biases, both at the individual and group level, may be negatively impacting promotion decision by not selecting the most competent individuals (Helzer & Bacolod, 2022). The overarching goal of the project at large will be to design decision-making aids to enhance the ease at which board members can evaluate selection information.

While examining enlisted sailors' promotion is critical to the Navy's organizational goals, to narrow scope, my portion of the project focuses explicitly on active duty, line officer selection boards and the role of the board members. This study employs comparative analyses with other military services and scrutinizes industry practices to devise data-driven recommendations on how to overcome heuristics and bias that may be impacting officer selection boards.

C. PURPOSE OF THIS RESEARCH

- Understand how selection board members are processing the information they are being presented during selection boards.
- Make suggestions on ways to improve for a future prototype.

D. RESEARCH QUESTIONS

1. How do selection board members process information presented to them in the Officer Military Personnel File and Performance Evaluation Records?
2. What are the pain points experienced by board members processing the Officer Military Personnel File and Performance Evaluation Records that could potentially lead to cognitive errors and biases in decision-making?

II. BACKGROUND

Talent acquisition and retention is critical to any organization's success. Promotion processes in the USN are dictated by both law and policy, making talent management particularly important relative to other organizations. Officer promotions are dictated by United States Code Title 10 law. These laws were consolidated into a body of statutory provisions called Defense Officer Personnel Management Act (DOPMA) (Robbert et al., 2019).

Relevant to the challenge of selection decisions, the framework for the DOPMA is comprised of five main components that direct officer career management:

1. Promotions are held from within the organization in a closed system with few exceptions (Parcell & Kraus, 2010). This constraint limits the scope of individuals who can be promoted to leadership positions.

2. Vacancies for higher ranks are filled by officers in lower ranks. The pool of officers from the lower ranks will be reviewed at a selection board to determine who will lead at the next paygrade.

3. Grade ceiling tables delineate the maximum number of officers allowed to occupy each rank to balance leadership representation and to ensure a hierarchical structure (Parcell & Kraus, 2010). In the Navy, promotions from paygrades O-1 through O-3 are mostly automatic if the officer is fully qualified (10 U.S.C 624, 1980). Promotions from grades O-4 through O-6, the ranks of Lieutenant Commander (LCDR), Commander (CDR) and Captain (CAPT), can only be filled by carefully selected, qualified officers within the internal talent pool, through the selection board process, no external candidates can be considered.

4. The Secretary of Defense submits the manpower requirements report to Congress for each fiscal year which demonstrates the end strength numbers for each branch. The end strength number determines how many officers may be promoted (10 U.S.C 521, 1980).

5. Eligibility for promotion is seniority-based, determined by time in grade, promotion zones and lineal number (Parcell & Kraus, 2010). An up-or-out career flow is maintained by established high years of tenure. Failing to select twice for promotion at a selection board would make an officer subject to involuntary separation further exacerbating the need to optimize promotion decisions (Robbert et al., 2019).

Beyond the constraints of Title 10, the selection board process is influenced by several other factors: USN policy, specific community requirements and decision-makers' assessments of eligible candidates (DODI 1320.14, 2020; 10 U.S.C 616, 1980). This systematic process dictates competitive categories determined by the officer's designated community for the paygrade of O-4 and above. Officers eligible for promotion are evaluated based on various criteria including education, awards, types of duty, and sustained superior performance documented in officer evaluations (Fitness Reports; FITREPs); in particular, if they are consistently above their Reporting Senior's Cumulative Average (RSCA) (Werenskold, 2022).

The environment and the process are inundated with rules and requirements, creating a complex framework for decision-making. Despite these restrictions, promotion decisions remain largely influenced by individual board members and group-level dynamics. Psychological factors such as cognitive load, decision fatigue, confirmation bias, overconfidence, and anchoring can significantly impact the fairness and effectiveness of the selection process. As the Navy continues to prioritize merit-based and impartial advancement, there is substantial room for improvement in how personnel information is presented at selection boards. Addressing these psychological elements can help mitigate the effects of heuristics and biases, leading to more objective and equitable promotion decisions.

There are two board categories in the Navy, statutory and administrative (PERS-80, 2021). Statutory boards are required by law and administrative boards are screening or procuring, which are governed by USN policy. Administrative boards are not promotion boards though it is possible in certain cases the person may promote to the next rank, for example a Chief Petty Officer being promoted to a Chief Warrant Officer (MyNavy HR,

n.d.). The officer selection boards discussed in this project refer to active-duty, line officer, statutory boards, which assess an officer for advancement to the next rank of LCDR through CAPT.

Several roles are required for each selection board: the president, board members, recorders, and administrative support personnel (DODI 1320.14, 2020). The focus of this project is the role of the board member. A board member may be nominated or apply to serve on a board (Secretary of the Navy, 2023). The composition of board membership depends on the type of selection board being held. For example, the minimum criteria for a restricted line officer board is five unrestricted line officers, two restricted line officers, minority and female representation must be included (PERS-80, 2021). Board membership is held in strict confidence to ensure impartiality—board membership does not become public knowledge until after board results are released. Title 10 dictates that every member of a selection board must solemnly swear to carry out their responsibilities impartially and fairly. Focusing on the unique qualifications of the eligible officers as well as the overall effectiveness of the armed forces (10 U.S.C 1403, 1980).

A. OFFICER SELECTION BOARD PROCESS

Two important documents dictate board proceedings: the precept and the convening order. The precept provides general guidance for the board season (Secretary of the Navy, 2023), while the convening order provides specific guidance for each selection board including the date, time, and location of the board as well as the individuals selected for board membership. It also establishes *in zone* and *below zone* candidates (MyNavy HR, n.d.). Officers are eligible for selection to the next grade based on their promotion zone. In zone means an officer falls within a designated time frame within their career where they are eligible to be considered for promotion to the next rank. Below zone means the officer is considered for promotion earlier than the normal time frame. A member can also be *above zone* if they failed to select for promotion in the regular zone, thus being up for promotion again the following fiscal year (MyNavy HR, n.d.). These distinct categories are determined by time in grade and seniority (DODI 1320.14, 2020). Additionally, the convening order outlines the standard for what makes a candidate the "best and fully

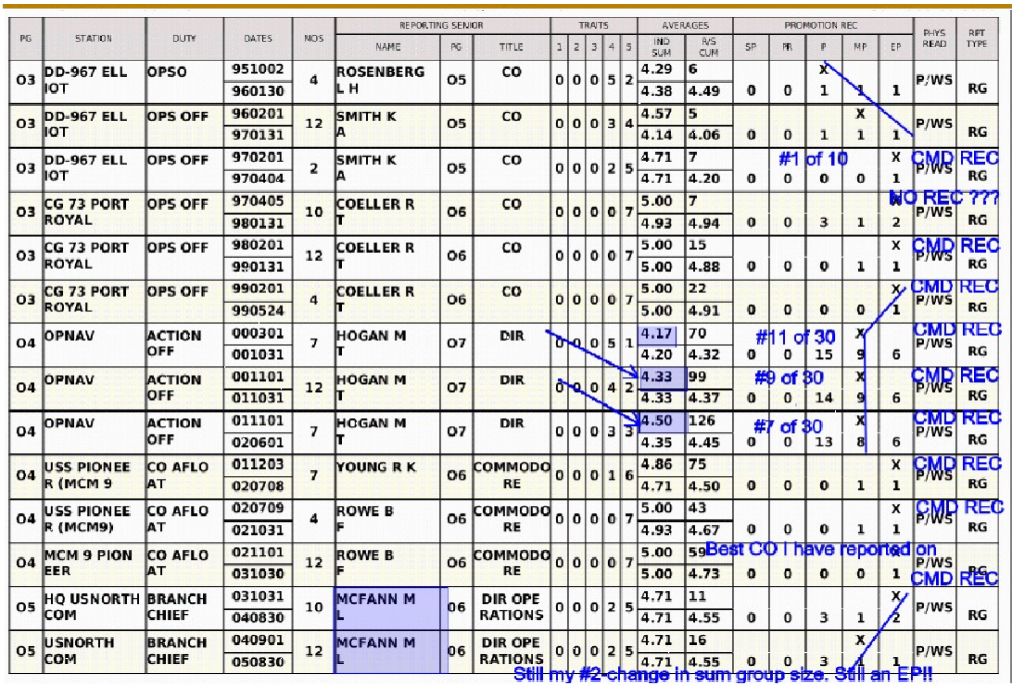
qualified," highlighting skills and additional considerations board members should evaluate (Assistant Secretary of the Navy, 2023).

Board recorders commence their duties a week before the selection board begins, tasked with reviewing the service records of all eligible candidates (Bedford, 2021). Their responsibilities include confirming continuity of FITREPs over the past five years, ensuring alignment between the Performance Summary Report (PSR) and FITREP grades, cross-checking promotion recommendations on the Official Military Personnel File (OMPF), and verifying the accuracy of awards listed on the Officer Summary Record (OSR) against the OMPF. This scrutiny ensures adherence to the board's specific criteria described in the convening order (Bedford, 2021). Once verified, the records are loaded into computers that use a decision support tool called the Electronic Military Personnel Record System (EMPRS).

1. Record Review

On the first day of the promotion board, board members and recorders are sworn in and receive training on EMPRS, a tool facilitating record assessment (Bedford, 2021). Each member reviews a random sample of records on their individual computers, which include the OMPF, PSR, OSR and FITREPS. Their task is to prepare these records for the "tank," a meeting where they'll brief fellow members on each record's suitability for selection (Werenskold, 2022). EMPRS contains highlighting and note-taking functions, enabling members to annotate key points, including the grade they assign to each record indicating varying degrees of suitability for promotion. Figure 1 shows a sample officer record that has been annotated by a board member during record review. They have marked the record in blue with notes and they will use later to brief the rest of the board. The grades assigned are from A to D and 'No', with 'A' signifying the candidate as a 'must select,' 'D' indicating 'probably not,' and 'No' meaning 'do not select this officer' (Werenskold, 2022). Although there is no specific time limit for grading, the volume of records and information processing impose time constraints. Expertise plays a role in this context as members must efficiently prepare notes for briefing records in the tank, where they'll present them to fellow members and the board president for voting. Members who have

been board members before may be more familiar with EMPRS and how to effectively grade a record.



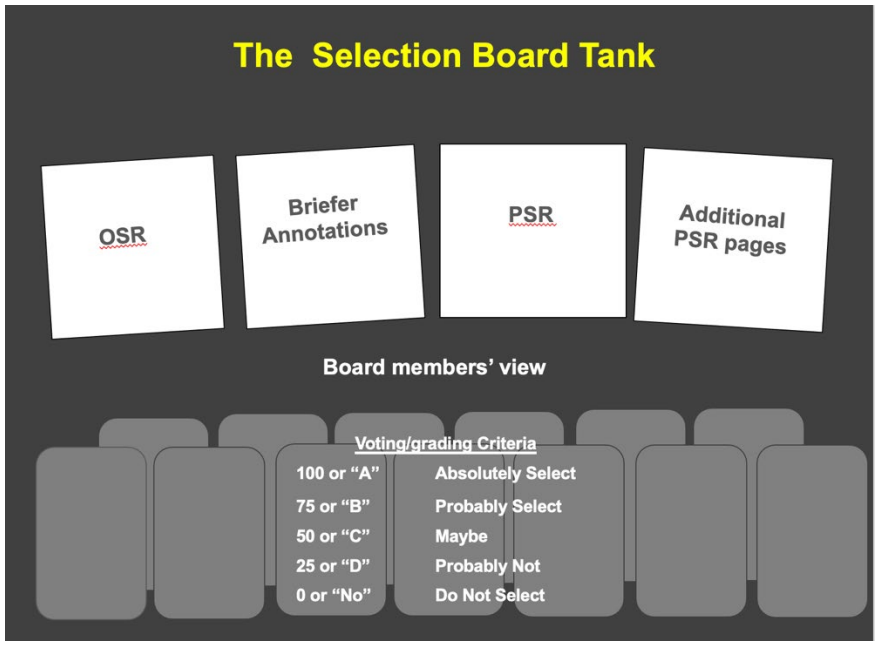
This is a sample of an officer PSR. The hypothetical board members comments are in blue. The PSR is one of several documents in the OMPF that a board member must review, annotate, grade then ultimately brief for a group vote during the record review process.

Figure 1. Sample Annotated PSR. Source: PERS-80 (2021)

2. The Selection Board Tank

After each record has been individually graded, the next step in the process is the selection board "tank." All of the board members are gathered in another room to individually vote on all the records (Bedford, 2021; Werenskold, 2022). The board president presides over the group as each board member briefs their randomly assigned records. Some may have more than others depending on their prior experience being a board member and the number of records they were able to grade. Figure 2 shows how the records are displayed across several screens to allow the group to cast their individual vote. The room is dark. In addition to listening to the brief while viewing the grade and deciphering the annotations of a fellow board member, the board members must

simultaneously look impartially at the officer record displayed and vote their own confidence level through the voting tool. Each member sits at their own seat and votes privately through the EMPRS voting tool. Like a remote control, there are buttons that indicate scores on the wireless voting box, which correspond with the confidence levels:100, 75, 50, 25, or 0 (Werenskold, 2022). In addition to listening to the brief while viewing the grade and deciphering the annotations of a fellow board member, the board members must simultaneously look impartially at the officer record displayed and vote their own confidence level through the voting tool. The briefers continue to brief their candidate until all votes are in. As the votes begin to tally up, the time constraint may lead to a sense of peer pressure, with board members waiting on one or two members to make their decisions before the next brief begins.



Example of the Selection Board Tank. Board members sit in a dark room. Several screens display the eligible officers' record information. The board member who graded the record briefs the group while the other members listen to the brief, review the record and vote based on the information displayed, the grade given by the briefer and their own assessment of the OSR and PSR.

Figure 2. Selection Tank. Adapted from Werenskjold (2022).

3. Scattergram and Voting Motions

After all the above zone and in zone eligible records are individually briefed and voted on in the tank, the board president will request the scattergram be projected on the screens for all board members to review together. Figure 3 shows how the scattergram streamlines the display of each record's overall confidence score, assisting the group in determining selection based on the briefings. Scores are arranged in descending order from highest to lowest, facilitating quick comprehension (Bedford, 2021). This visual aid expedites the selection process.

The total number of vacancies at the next rank is determined by the *percent to select* number in the convening order, though the actual percentage is decided on by motions to the board president and must be agreed upon by a majority vote. Generally, all records with a score of 90 percent and above at the top of the scattergram are categorized as *selects*. Candidates scoring below a 50 percent are categorized as *fail* and they will be dropped from further consideration.

The records that are current non-select for promotion are reevaluated by the group a second time in a process known as the *crunch.* To maintain decision process integrity, if the initial record review was done by a member from a different designator, the second record review is required to be complete by a community expert—preferably a board member of the same designator (Bedford, 2021). This board member annotates the record in another color building upon the first reviewer's assessments. The record is once again briefed and displayed to for the group to vote on. This process continues until all authorized selections are filled, or the board does not find any additional officers that meet the selection criteria (PERS-80, 2021). The board members crunch this group of records continuing until all above or in zone records have been either tentatively selected or dropped.

7 Selects	0 Alternates	7 Fails	6 Non-Select	20 Total	
SelStat	Score	# Eligibles	Total #	Score	SelStat
Select	100	3	3	100	Select
Select	95	3	6	95	Select
Select	90	1	7	90	Select
Non-Select	85			85	Non-Select
Non-Select	80	1	1	80	Non-Select
Non-Select	75	2	3	75	Non-Select
Non-Select	70	2	5	70	Non-Select
Non-Select	65			65	Non-Select
Non-Select	60	1	6	60	Non-Select
Non-Select	55			55	Non-Select
Non-Select	50			50	Non-Select
Fail	45	1	1	45	Fail
Fail	40	1	2	40	Fail
Fail	35			35	Fail
Fail	30	1	3	30	Fail
Fail	25	1	4	25	Fail
Fail	20			20	Fail
Fail	15			15	Fail
Fail	10	1	5	10	Fail
Fail	5			5	Fail
Fail	0	2	7	0	Fail

The scattergram shows the cumulative number of votes at each confidence level. Green indicates the candidates who are tentatively selected. The red shows which records are dropped and no longer viable for selection. All above zone and in-zone records deemed non-select records or crunch records are redistributed for another review.

Figure 3. Scattergram Example. Source: PERS-80 (2021).

Next, the below zone candidates are reviewed. Since only10 percent of selects are authorized to be below zone, the voting process is expedited without an individual grade or brief (PERS-80, 2021). Board members vote yes (100) or no (0) on their hand-held voting device as each below zone record is displayed. Once all below zone records have been voted on, a new scattergram with only the below zone records is presented.

After every promotion eligible officer record has been reviewed and voted on, the tentative select list is verified and a final vote is taken to ensure all board members agree. All board members must sign their concurrence, which will be included in the official board record of proceedings (Bedford, 2021). The list of selects is then routed for final approval by the Senate.

B. ENLISTED SELECTION BOARDS

The enlisted selection boards "parallel statutory selection boards to the maximum extent possible" with a few key differences (BUPERSINST 1430.16G, 2018). The Deputy Chief of Naval Personnel is responsible for enlisted selection boards. They

release the precept and convening orders, determine the quotas for each rating and give final approval of the list of selectees. Additionally, the board president must be a senior officer, a CAPT or above, and presides over the enlisted board members. Promotion eligibility for paygrades E-7 through E-9 is determined by the *Advancement Manual for Enlisted Personnel*. Those who meet all requirements will be considered for the board. Unlike the officer process, eligibility for enlisted personnel is not categorized into zones (BUPERSINST 1430.16G, 2018). Finally, enlisted selection boards are notably more time-consuming than officer boards due to the larger number of personnel records to review. With access to the entire enlisted record, board members face a tedious task of thorough examination. These boards typically span several months and are organized into panels by rating, with members rotating in and out (PERS-803, 2021). For instance, one panel may focus on only administrative and supply ratings, whereas officer boards are divided into competitive categories based on designator (SECNAV, 2019).

C. POLICY CHANGES FOR FAIRNESS AND IMPARTIALITY

In 2016, the Department of the Navy mandated the removal of zone labels from officers' records. This directive aimed to increase the difficulty for board members to differentiate between above-zone and in-zone officers, while still allowing below-zone officers to be identifiable during the grading process (Ahn et al., 2021). Although this policy was later revoked, its intent was to reduce bias by ensuring that board members did not unfairly assess records based on previous promotion outcomes. Presently, the convening order requires that all above and in-zone records receive equal consideration.

Another modification to the board process involved removing officers' official photographs during selection of boards. Until 2020, officer photographs were displayed in the tank for board members to view while voting (Department of the Navy, 2023). This change was prompted by guidance from the Secretary of Defense aimed at addressing implicit bias in current policies and procedures. As a result, officer photographs are currently forbidden to be displayed in selection boards.

D. SCOPE

This study focuses on the challenges of Navy officer selection boards, specifically examining the role of the briefer. Briefers are responsible for evaluating and presenting the records of officers eligible for promotion. The environment is highly structured and formal, with briefers working under time constraints to review extensive personnel files. Each record includes multiple components such as the OMPF, PSR, OSR and FITREP. Briefers must meticulously annotate these records under the pressure of cognitive load and potential biases. They present their findings to the board in a darkened room, where multiple screens display the information, and members vote on the candidates based on the briefings. This environment demands both precision and efficiency, stressing the need for improved decision support tools to ensure fair and effective promotion decisions.

E. CONCLUSION

Selection boards have high standards governed by both law and policy. The process demands an equitable review but is undeniably cumbersome, requiring meticulous effort from its board members. The documents presented to the board members including the OMF and the PSR, contain a large amount of information presented in a form that does not facilitate rapid, accurate information processing.

F. ORGANIZATION

The organization of this thesis is as follows. In Chapter III, I provide a literature review of scholarship pertaining to the impact of heuristics and cognitive biases in similar industries and other military services. In Chapter IV, I provide an analysis of the three main risk areas in the selection board process. In Chapter V, I describe the methodology that will be used in future studies to understand how board members are processing the information displayed to them during a selection board. In Chapter V, I close with conclusions and recommendations based on the findings of the research project.

III. LITERATURE REVIEW

The selection of candidates in officer selection boards hinges to some degree on the individual and collective psychological dynamics of board members. This literature review investigates the research in behavioral economics and psychology that examines the significance of heuristics, biases, the impact of expertise, and cognitive load theory on decision-making ability. The intent of this literature review is to understand these psychological factors and identify potential cognitive pain points that may lead to errors and biases in the Navy's selection process. The goal of this review is to provide insights into how these elements affect the effectiveness and fairness of officer selection boards, directly addressing the research questions of how board members process information and what improvements can be made to enhance decision-making outcomes.

A. HEURISTICS AND SELECTION BOARDS

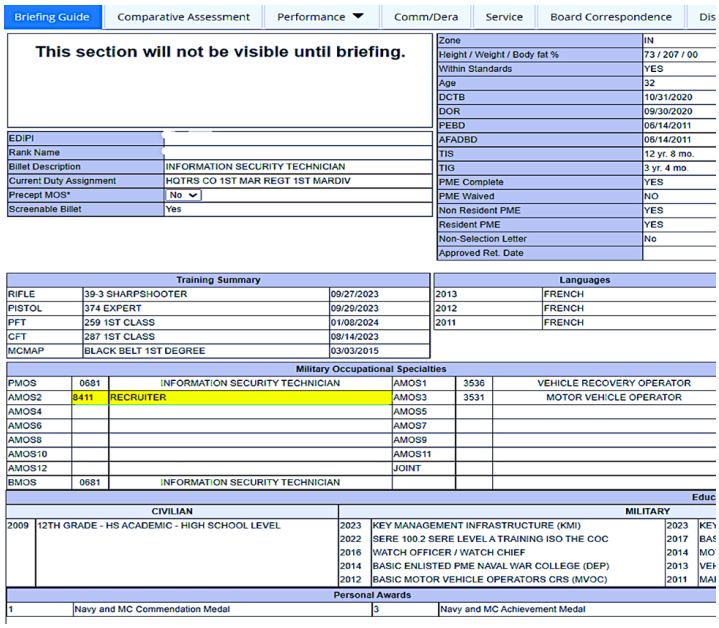
1. The Ecological Tradition

To comprehend the decision-making processes of board members, an examination of the foundational factors guiding their responses becomes essential. Originating in the 1950s, Herbert A. Simon, an economist and cognitive psychologist, introduced the first model of heuristics. Heuristics are mental shortcuts people use to streamline decision-making by simplifying complex problems (Simon, 1976). As short cuts, heuristics minimize the amount of information that needs to be processed and reduce the amount of time the decider needs to come to a decision (Simon, 1976). There are several prominent voices and traditions associated with the study of heuristics.

One such tradition is the ecological tradition, which views heuristics as efficient decision strategies that have evolved over time and are well-suited to tasks in specific environments (Gigerenzer & Selten, 2001; Klein, 2001; Simon, 1976). They are an adaptive tool to assist both humans and animals in making decisions without excess detail; without heuristics it would be strenuous to make even the most inconsequential of decisions (Gigerenzer & Selten, 2001). An example of this is the *take-the-best* heuristic, where the mind efficiently processes information and makes a choice based on the best of particular

attributes, ignoring the rest of the information presented (Gigerenzer & Goldstein, 1996; Graefe & Armstrong, 2012). Graefe and Armstrong (2012) explore this "less is more" mental shortcut by building a model to forecast presidential elections outcomes. The model focuses on a single issue—how voters expect the candidates to deal with the primary issue of that election. Using the take-the-best heuristic based exclusively on one issue, researchers can predict 10 presidential elections between 1972–2008 with 97% accuracy (Graefe & Armstrong, 2012). Compared to more robust forecasting models that include more decision variables, the take-the-best heuristic model performs well. While their model may exhibit strong predictive power in the presidential election scenario, the extent to which the model can be generalized remains subject to further inquiry.

Recognition is another heuristic valuable in decision-making. The recognition heuristic ranks an object that is recognizable higher than one that is not—determined by whatever dimension is positively correlated with recognition (Gigerenzer & Goldstein, 1996). The United States Marine Corps (USMC) leverages this heuristic in its promotion board process. The Digital Board Room system, responding to board member feedback, highlights in yellow the attributes identified by the precept as exceptional on a Marine's record (Moore, 2024). This feature significantly aids board members in easily recognizing promotion-relevant information. For example, recruiting duty, a highly competitive tour, is highlighted in the record shown in Figure 4, allowing board members to quickly identify and prioritize this important attribute without extensive searching. By making critical information more immediately visible, the system enhances the efficiency and effectiveness of decision-making.



Briefing Guide | Comparative Assessment | Performance | Comm/Dera | Service | Board Correspondence | Dis

This section will not be visible until briefing.

EDIPI	
Rank Name	
Billet Description	INFORMATION SECURITY TECHNICIAN
Current Duty Assignment	HQTRS CO 1ST MAR REGT 1ST MARDIV
Precept MOS*	No
Screenable Billet	Yes

Zone	IN
Height / Weight / Body fat %	73 / 207 / 00
Within Standards	YES
Age	32
DCTB	10/31/2020
DOR	09/30/2020
PEBD	06/14/2011
AFADBD	06/14/2011
TIS	12 yr. 8 mo.
TIG	3 yr. 4 mo.
PME Complete	YES
PME Waived	NO
Non Resident PME	YES
Resident PME	YES
Non-Selection Letter	No
Approved Ret. Date	

Training Summary

RIFLE	39-3 SHARPSHOOTER	09/27/2023
PISTOL	374 EXPERT	09/29/2023
PFT	259 1ST CLASS	01/08/2024
CFT	287 1ST CLASS	08/14/2023
MCMAP	BLACK BELT 1ST DEGREE	03/03/2015

Languages

2013	FRENCH
2012	FRENCH
2011	FRENCH

Military Occupational Specialties

PMOS	0681	INFORMATION SECURITY TECHNICIAN	AMOS1	3536	VEHICLE RECOVERY OPERATOR
AMOS2	8411	RECRUITER	AMOS3	3531	MOTOR VEHICLE OPERATOR
AMOS4			AMOS5		
AMOS6			AMOS7		
AMOS8			AMOS9		
AMOS10			AMOS11		
AMOS12			JOINT		
BMOS	0681	INFORMATION SECURITY TECHNICIAN			

CIVILIAN

2009	12TH GRADE - HS ACADEMIC - HIGH SCHOOL LEVEL

MILITARY

2023	KEY MANAGEMENT INFRASTRUCTURE (KMI)	2023	KE
2022	SERE 100.2 SERE LEVEL A TRAINING ISO THE COC	2017	BA
2016	WATCH OFFICER / WATCH CHIEF	2014	MO
2014	BASIC ENLISTED PME NAVAL WAR COLLEGE (DEP)	2013	VE
2012	BASIC MOTOR VEHICLE OPERATORS CRS (MVOC)	2011	MA

Personal Awards

1	Navy and MC Commendation Medal	3	Navy and MC Achievement Medal

Example of the USMC promotion board briefing guide. The specialty "Recruiter" is highlighted by the Digital Board Room system to help board members recognize this attribute with ease.

Figure 4. Digital Board Room Briefing Guide Highlighted. Source: Moore (2024)

The Digital Board Room's use of the recognition heuristic exemplifies how highlighting familiar attributes can streamline the decision-making process by aligning with the natural tendency to prioritize familiar information. This approach not only expedites the process but also ensures that key information is not overlooked. Given the similarities between the USMC's and the Navy's selection boards, the lessons from the USMC's approach offer valuable insights for cross-service learning. The ecological tradition suggests that using a single, prominent cue can be more effective than multiple cues. The take-the-best and recognition heuristics demonstrate how fast and frugal reasoning can improve efficiency and adaptability in decision-making (Gigerenzer & Goldstein, 1996, 1996; Gigerenzer & Selten, 2001; Graefe & Armstrong, 2012; Klein, 2001; Simon, 1976). The ecological tradition shows that heuristics can streamline complex, high-stakes decisions, providing practical insights for improving decision support tools in officer selection boards.

2. The Heuristics-and-Biases Tradition

The psychological tradition of heuristics and biases, however, urges prudence in relying on these mental shortcuts. Competing voices argue that heuristics might not guarantee accuracy, particularly when confronted with uncertain or incomplete information within the constraints of time. Heuristics may reduce the time spent finding a solution, but tradeoffs include cognitive errors such as overconfidence bias, anchoring and confirmation bias leading to suboptimal candidate selections and undermining the accuracy of the promotion process (Bazerman & Moore, 2012; Kahneman, 2011; Tversky & Kahneman, 1978).

Daniel Kahneman and Amos Tversky (1978), prominent psychologists in the field of behavioral economics, assert that heuristics give rise to systematic errors in judgement and decision-making. One bias that may impede optimal decision-making is overconfidence bias, individuals' tendency to overestimate the accuracy of their judgements and the reliability of their information (Brenner et al., 1996; Kahneman, 2011; Mahajan, 1992; Tversky & Kahneman, 1978). Kahneman's *Thinking Fast and Slow* (2011) introduced the concept of two thinking systems: System 1 (intuitive and fast), which tends to be more emotion based, and System 2 (deliberative and slow), the more logical, rule based system. Within this framework, Kahneman investigates overconfidence bias and asserts that System 1 thinking cannot distinguish degrees of belief, which can lead to various decision-making pitfalls. System 1 suppresses ambiguity while System 2 is capable of doubt, an important defense against overconfidence (Kahneman, 2011).

Many studies investigate the impact of overconfidence bias. In one example, Mahajan (1992) studied marketing managers' predictions of the likelihood of future events. Mahajan hypothesized that more experienced managers, due to their expertise, might be more prone to overconfidence bias, potentially leading to suboptimal decision-making. Although the sample size and generalizability to other domains were limitations, requiring managers to receive evaluative feedback and provide counterfactual reasoning decreased overconfidence in their predictions (Mahajan, 1992). Mahajan (1992) also found a positive correlation between experience (a proxy for expertise) and susceptibility to overconfidence bias. While the decision-making contexts of officer board members and marketing

managers may differ, understanding these cognitive processes, including the impact of expertise, external feedback, and confronting preconceived notions, can promote more objective evaluations.

Anchoring bias may also impact optimal decision-making. In their seminal work, *Judgement Under Uncertainty,* Kahneman and Tversky's (1978) state "people make estimates by starting from an initial value that is adjusted to yield the final answer. The initial value, or starting point, may be suggested by the formulation of the problem, or it may be the result of a partial computation. In either case, adjustments are typically insufficient. This illustrates how the *anchoring and adjustment heuristic* is susceptible to anchoring bias, as initial judgements heavily influence subsequent revisions. Anchoring arises when individuals base their judgements on the initial information (the anchor) provided (Tversky & Kahneman, 1978). Following the anchoring phase, individuals adjust from the initial anchor to arrive at their final decision but these adjustments are insufficient (Galinsky & Mussweiler, 2001; Northcraft & Neale, 1987; Tversky & Kahneman, 1978).

Anchoring bias may influence how candidates are assessed by selection board members, particularly when an initial rating of an officer influences subsequent board decisions. Without a wealth of comprehensive research on military selection boards, examining studies from other industries with rigorous performance rating criteria becomes imperative to identify potential instances of anchoring. This approach allows for a broader understanding of how anchoring bias might manifest in the military selection process. For example, Chen and Kemp (2015) investigated anchoring effects on quantitative evaluation information of university employees. To simulate academic promotion decisions, the authors conducted six experiments using evaluations from 547 undergraduate students and 33 university faculty members. Their study randomly assigned a performance rating to a hypothetical applicant and found raters consistently scored the applicant around the randomly assigned value or "anchor." Similarly, Belle et al. (2017) conducted two experiments on a sample of 600 public sector managers and employees to analyze the impacts of anchoring. They discovered that raters assigned a higher overall performance score to the subordinate when exposed to a high anchor. Certain limitations of these studies

should be acknowledged, notably their reliance on experimental setups featuring simulated decision scenarios and their limited effect sizes.

While controlled environments like these may not fully encompass the intricacies of real-world decision-making processes, it is plausible that anchoring effects could be amplified in authentic settings like selection boards where external factors like noise, time constraints, and social influences shape decision-making. Several potential scenarios could exacerbate anchoring biases in this context. First, during the initial record review conducted by board recorders, officers' records with notable achievements or shortcomings may inadvertently establish anchors for subsequent evaluations by board members. Additionally, in the "crunch" process—where records not initially selected for promotion undergo reevaluation—board members may unconsciously refer to initial impressions of the candidate record. If certain records were originally deemed strong or weak, these assessments could serve as anchors that influence the outcome of the reevaluation. This may be especially true because the annotations of the first board member's record review remain as the second reviewer conducts their evaluation. Making the first reviewers remarks visible may cause the second grader to anchor to the initial grade without realizing it. Anchoring effects are widely recognized in the literature and appear to influence performance evaluations across various raters, metrics, and anchoring contexts (Belle et al., 2017; Chen & Kemp, 2015; Galinsky & Mussweiler, 2001; Northcraft & Neale, 1987; Tversky & Kahneman, 1978). Policymakers should consider the possibility that anchoring bias is affecting officer promotion decisions, and consequently, implementing strategies to mitigate its influence may be advisable.

Another bias, confirmation bias, may also impact optimal decision-making. Confirmation bias may occur in decision-making when information is selectively processed, aligning with preconceptions while simultaneously filtering out alternative explanations (Tversky & Kahneman, 1978; Wason, 1960). Consequently, judgements and decisions may be swayed by misleading correlations rather than objective evidence (Chapman & Chapman, 1969; Ditto & Lopez, 1992; Schwarz et al., 1990; Tversky & Kahneman, 1978; Wason, 1960). Homophily, the tendency to favor individuals who are like oneself, can influence initial judgements and subsequently lead to confirmation bias

(Lazarsfeld & Merton, 1954). For instance, in a promotion board, a prior-enlisted board member might initially favor an officer with prior-enlisted experience over an equally competent officer without such experience. This initial favoritism, driven by homophily, can cause the board member to selectively process information that confirms their belief that prior-enlisted officers are better suited for higher ranks. This selective processing and the emphasis on confirming evidence can distort the decision-making process.

Ditto and Lopez (1992) studied confirmation bias in an experiment of 60 undergraduate females. To test the hypothesis that participants would align their judgements based on preconceived notions, they simulated a college admissions decision environment. The objective was to place subjects in a judgement scenario where they were either impartial or had a clear pre-existing preference and compared the results to see if confirmation bias impacted decision-making. To measure the effects, participants were tasked with evaluating the intelligence of two applicants under the constraint of time based on several data points, including an evaluation form that was manipulated to induce preconceptions about the applicant's likability. Next, participants reviewed the applicants' performance on an 18-question test presented one question at a time on index cards, along with the applicants' responses and their correctness (Ditto & Lopez, 1992). To replicate the time pressure of admissions decisions, experimenters encouraged the participants to stop reviewing the index cards as soon as they felt like they had decided who was most intelligent. The number of cards required to make their decision was recorded as the key dependent measure. They found that in preference conditions, when the applicant was perceived as unlikable, fewer cards were required to make their intelligence determination (Ditto & Lopez, 1992). Their findings suggest that people look for less supporting evidence to come to a decision when they have preconceptions then when they do not. The study also found that the participants were more likely to be surprised when they were wrong about the applicant's intelligence in preference conditions. These findings highlight how confirmation bias in the decision-maker can unknowingly have the potential to alter decision outcomes.

The psychological tradition of heuristics highlights the risks associated with relying on mental shortcuts in selection boards. The potential for overconfidence, anchoring, and

confirmation biases to creep in may result in flawed decision-making that policymakers should be aware of. Addressing and counteracting these biases is crucial for ensuring fair and effective board proceedings.

B. INFLUENCE OF EXPERTISE ON DECISION-MAKING

The literature suggests that experts in their field make decisions differently than novices (Brown et al., 2014; Klein, 2001; Pachur & Marinello, 2013). A board member's proven track record as a successful senior leader in their community provides a basis to gauge an individual's potential for success at the next rank. Gary Klein, a psychologist who studies heuristics, believes that inexperience is a greater factor in poor decision-making than flawed logic. His Recognition Primed Decision model suggests that experts, including military professionals, approach complex and high-stakes situations by recognizing patterns based on their prior experience, which allows them to choose a course of action quickly and effectively (Klein, 2001).

There is some evidence to support the notion that experts are more resistant to biases, such as anchoring, when compared to novices, while other research finds experts particularly susceptible to biases like overconfidence (Kahneman, 2011; Mahajan, 1992; Northcraft & Neale, 1987). This contradiction adds to the complexity of understanding of decision-making within selection boards. While the debate about cognitive bias influence on experts' susceptibility to bias varies by study, decision-making science generally agrees that experts can still be influenced by irrelevant information and experience decision fatigue. (Danziger et al., 2011).[1]

[1] Replication Crisis

The past decade has seen increased scrutiny of rigor in the social and psychological sciences, emphasizing the need to be attentive to the prominence and statistical power of cognitive studies in the literature. Some prominent research findings have been shown to be not consistently reproducible by independent researchers—raising concerns about the credibility and robustness of some scientific conclusions (Shrout & Rodgers, 2018).

C. COGNITIVE LOAD AND DECISION FATIGUE

1. Choice Overload

Heuristics are not the only cognitive constraints on optimal decision-making. The cognitive strain of continuously adjudicating can take a toll on board members' mental resources that may lead to decision fatigue. As President George W. Bush aptly put, the role of "the decider" carries an inherent cognitive burden (Tierney, 2011). Coined by John Sweller in 1988, Cognitive Load Theory (1988) asserts that when individuals engage in problem-solving tasks, the cognitive load incurred during this process reduces the cognitive resources available for learning. A causal relationship between decision-making and available cognitive resources has been well established in behavioral economics. Following Sweller (1988), most studies' findings indicate that increased cognitive load is associated with reduced numeracy, heightened risk aversion, and increased impatience (Deck & Jahedi, 2015; Fudenberg & Levine, 2006; Iyengar et al., 2004; Mukherjee, 2010).

Deck and Jahedi (2015) conducted two experiments to test how cognitive load impacts individual decision-making. In one experiment with 112 participants, cognitive load was imposed on half the participants through digit memorization tasks. By manipulating cognitive load, the researchers found that increasing the quantity of numbers in a digit-memorization task, participants exhibited a significant drop in math performance and a higher susceptibility to anchoring effects (Deck & Jahedi, 2015). The study is constrained by its effect size as well as its emphasis on individual behavior within a singular task, which may restrict the applicability of its findings to other cognitive load

Open Science Collaboration put together a team of 259 researchers to conduct 100 replications and found that cognitive psychology had better reproducibility in significance testing compared to those in social psychology (2015). This finding is consistent with Youyou et al.'s (2023) research which analyzes 14,126 psychological papers published between 2000-2019. Assessments of replication rates should be contextually framed within the confines of a subfield rather than being generalized to an entire discipline (Youyou et al., 2023). Findings from prominent, reputable sources in the subfield of Cognitive Psychology, a field dominated by experimental research, has proven to withstand the test of time.

In the context of Navy officer selection boards, the replication crisis highlights the potential pitfalls of basing decisions on studies that may not be as robust as previously thought. The Navy's practices and strategies should be regularly reviewed and tested against solid, reproducible evidence. By consistently cross-referencing findings with those from other military services and relevant industries, the Navy can ensure that its selection processes are both fair and effective. The replication crisis serves as a reminder to rely on well-substantiated research and to remain vigilant against outdated or unverified methods.

scenarios. Like Deck and Jahedi (2015), the other studies on cognitive load are constrained by selective tasks in specific contexts. Despite these limitations, the study's insights into decision-making under cognitive load is relevant to understanding the challenges of selection boards, emphasizing that even objective criteria like arithmetic proficiency have the potential to be influenced by cognitive demands placed on the decision-maker by the task or by unrelated stimuli.

2. Decision Fatigue

Intuitively, policymakers may feel that more information may translate into optimal decision-making. Quantitatively, studies show that cognitive load may result in decision fatigue that can compromise decision quality or the ability to make a choice at all (Danziger et al., 2011; Iyengar et al., 2004).

In the context of decision-making processes, such as those encountered in officer selection boards, it is essential to consider the impact of decision fatigue. In a study of 800,000 employees 401(k) options, Iyengar et al. (2004) found a decrease in employee participation in 401(k) programs when offered more fund choices. This "choice overload," seems to lead to decision fatigue: participants were less motivated to commit to a choice when they had to consider a menu of 30 fund options. The study found a higher uptick in 401(k) enrollment when 10 or fewer plans were offered (Iyengar et al., 2004). A limitation of this study was the time variable. Whether time was the cause of the decision fatigue because it took participants longer to wade through all 30 plan options and therefore became more tired remains unclear. Though the context of selecting a 401k plan and selecting an officer for promotion are different, policymakers may want to consider the impact of decision fatigue and look for ways to improve engagement. One idea could be limiting the number of candidates records board recorders must consider.

In another example, a study by Danziger and his colleagues (2011) also provides insight into the impact of decision fatigue. Their study of 1,112 judicial rulings over 50 days made by eight Jewish-Israeli judges presiding over two different parole boards find a notable fluctuation in the likelihood of favorable rulings consistent with cognitive overload and decision fatigue. Rulings were more positive in favor of the prisoner at the beginning

of the session and gradually decline until the session break, specifically a break where food is consumed. Danziger et al. (2011) asserted that judicial decisions are influenced by mental fatigue, the order and timing of cases, mood and physical comfort—challenging the notion that decisions are solely based on legal reasons. The relationship between favorable rulings and breaks suggest that the judges became overloaded until they had an opportunity for mental replenishment. To restore executive function, Danziger et al. (2011) suggested increasing glucose levels in the body and taking frequent, short breaks. The research suggests that mental fatigue can be overcome by offering fewer options, viewing scenes of nature, experiencing positive mood by watching a short comedy video or receiving a gift (Danziger et al., 2011; Iyengar et al., 2004; Kaplan & Kaplan, 1989; Tice et al., 2007). These best practices can improve self-regulation and restore cognitive processing.

Caution is warranted in generalizing these findings despite the adequate sample size. The complexity of decisions differs between officer selection boards and parole hearings. Officer selection boards must consider a broader range of factors, including candidates' qualifications, skills, fit for the position, and impact on organizational goals. Decision-making processes may vary in levels of scrutiny, deliberation, and consensus-building. However, both judges and board members wield decision-making authority with direct impacts on individuals' lives and public trust. Operating as subject matter experts, their decisions are bound by legal requirements, organizational policies, and ethical principles. Thus, understanding decision fatigue remains pertinent, and implementing strategies to reduce its effects can improve decision results in various situations.

D. COMPARATIVE ANALYSIS STRATEGIES FOR OVERCOMING COGNITIVE BARRIERS IN BOARD DECISION-MAKING

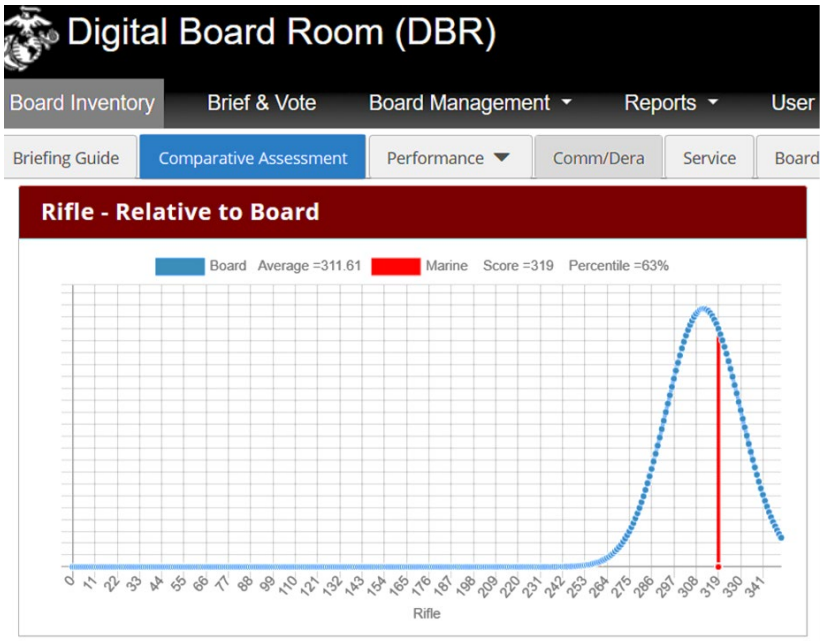
To address cognitive biases and load in decision-making, various interventions have been explored by other organizations with rigorous selection criteria, akin to that of the USN officer promotion board process. Below, I review and evaluate the strategies of the United States Air Force (USAF), University of Ohio medical school admissions and the United States Marine Corps (USMC) to offer insights that may optimize board member promotion decisions.

At the request of the USAF, RAND Corporation (2022) conducted a study on the effects of unconscious or implicit bias on board members during officer selection boards. The study assessed the impact of providing unconscious bias training to board members prior to the convening of the selection boards in an attempt to mitigate biased decisions. While their study focuses on diversity and inclusion topics outside the scope of this project, their incorporation of bias training in the military as a decision support tool for board members is relevant. Training is a popular method used not only in the military but also in corporate America to show support for making behavioral changes within an organization. The study finds that compared to the 2020 boards, the addition of the training right before the 2021 board had mixed results. Conley et al. (2022) find generally positive reactions to the training by board members but negligible impact on officer selections. These findings are not that surprising considering a growing body of literature that suggests that the causal efficacy of antibias trainings is widely unknown (Dobbin & Kalev, 2020; Paluck & Green, 2009).

The University of Ohio medical school admissions also use training as a method to remove bias. A 2013 study required all 140 committee members of the medical school admissions to take an anonymous Implicit Association Test (Capers et al., 2017). The results revealed implicit bias in its members potentially contributing to low representation in minority groups admitted to Ohio's medical school, which was 17% at the time. To increase behavioral change, all admissions cycle committee members participated in a 45-minute moderated discussion that includes implicit bias vignettes. Additionally, they are given an interview "cheat sheet" to review prior to meeting a candidate which includes strategies on how to overcome bias before making a final decision. The result of enacting these changes was a 3% increase in minority representation in medical school admissions within the first year (Capers, 2019). The results seem compelling; however, the sample is not random, nor has the methodology been replicated by other university admissions. In conclusion, while unconscious bias training represents a proactive effort to address bias within decision-making processes, its effectiveness remains uncertain. Both RAND Corporation's study on USAF officer selection boards and the University of Ohio medical school's initiatives shows the outcome of antibias training for board members may vary

and necessitate further exploration and refinement before policymakers should consider investing.

In addition to looking for ways to reduce bias, the USAF and USMC have implemented strategies to reduce cognitive load in their promotion board processes. Considering the impact of cognitive load on decision-making it is important to evaluate how instructional materials and learning tasks can be optimized to minimize cognitive strain and enhance the overall learning experience (Brown et al., 2014; Sweller, 1988). To guard against the mental burden of too much information during the promotion board process, the USMC has made a push to "modernize talent management digital tools" (United States Marine Corps, 2023). Digital Board Room 2.0 is the decision aid board members use when selecting Marines for promotion. Digital Board Room 2.0 uses statistical analysis embedded in the system to produce graphs that show where a Marine ranks among their peers on a precisely rated skill. For example, Figure 5 shows that relative to the other candidates, the Marine's record being reviewed by a board member has an above average rifle score. The Comparative Assessment tab that displays this information is a response to board members' requests to have the Marines' information presented in a way that is "easier to digest" (Moore, 2024). To offload the cognitive burden of remembering the Marine's score of 319, then comparing it with the other records left to review, this decision support tool shows that the score is in the 63rd percentile. The USMC is motivated to retool the functionality of its promotion board interface to "improve the accuracy of the information presented to board members" by offloading more of the cognitive burden onto decision support tools (United States Marine Corps, 2023). The findings imply that access to cognitive resources can significantly influence behavior and that other military services are acting on direct feedback from board members to elicit change.



This Marine's rifle score was 319. The average score was 311.61. The Comparative Assessment tool shows the score is in the 63rd percentile compared to other Marines up for promotion.

Figure 5. Digital Board Room Comparative Assessment. Source: Moore (2024).

To reduce cognitive load and improve fairness in officer promotion decisions RAND measured the effect of limiting USAF officer records to a five-year window rather than making the entire record available to the board members (Conley et al., 2022). The feedback to the change made to the 2021 boards was mixed. The focus on only recent performance did facilitate more rapid scoring of the records but also disproportionately impacted officers who had valuable training outside of the five-year window (Conley et al., 2022). Though the effect was inconclusive, the idea offers a potential solution to help reduce cognitive errors within the context of military selection boards.

E. IMPLICATIONS AND PATH FORWARD

Heuristics are two sides of one coin: they reduce complexity in decision-making but may also lead to cognitive errors. To overcome cognitive barriers there are several ways to ensure judgements align with reality; having external benchmarks such as best practices in other military services, analysis of similar organizations, historical data, and outside

expert opinions is crucial. Like using navigation instruments, regularly checking these reliable reference points helps us make informed decisions, recognize deviations, and course correct (Tversky & Kahneman, 1978).

Despite a gap in the literature on officer selection boards, findings on cognitive bias suggest reducing the volume of information in records or highlighting the most important attributes, induces fast and frugal reasoning (Conley et al., 2022; Gigerenzer & Selten, 2001; Moore, 2024). Encouraging doubt by red teaming or playing devil's advocate can activate System 2 thinking and protect against the availability heuristic (Kahneman, 2011; Tversky & Kahneman, 1978). Mandating training to reduce bias may not be the most effective strategy to induce behavioral change in decision-makers (Dobbin & Kalev, 2020; Paluck & Green, 2009). Adding intermittent breaks and even providing snacks to increase blood glucose levels may improve decision outcomes (Danziger et al., 2011). Overconfidence bias has the potential to impact experts so it is valuable to seek out uncongenial information and know when not to trust your decision-making ability (Mahajan, 1992; Tierney, 2011) Incorporating feedback immediately after the conclusion of a board session and taking action on that feedback has been shown to improve the user experience of the board members in the USMC (Moore, 2024). Building upon the insights from cognitive bias research and recognizing the need to investigate the cognitive hurdles board members are experiencing, my research aims to propose recommendations informed by both existing literature and original findings to improve decision-making outcomes in officer selection boards.

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IV. ANALYSIS

This analysis identifies three areas at risk in the Navy's officer selection board process: the initial record review, the tank, and the crunch sessions. It examines how cognitive load and biases, such as confirmation, overconfidence, and anchoring, impact promotion decisions. By understanding these vulnerabilities, strategies can be developed to mitigate risks and enhance the integrity of the officer selection board process.

A. AREA AT RISK #1: INITIAL RECORD REVIEW

The first area at risk begins at the initial record review. Cognitive load theory suggests that high levels of information and complexity can overwhelm decision-makers, reducing their ability to process information effectively (Sweller, 1988). At the very beginning of the selection board process, the volume, complexity and detailed nature of the documents presented can impose significant cognitive strain.

For example, in the FY-24 Navy Lieutenant Commander Line Selection Board, 53 board members reviewed a total of 3,284 records, including 1,131 in zone candidates and 2,153 candidates from above and below zones combined (MyNavy HR, 2023a, 2023b). Each record contains multiple components, such as OMPF, PSR, OSR, and FITREPS, with each OMPF averaging about 10 pages of detailed performance evaluations and documentation. If each board member were to review only the in zone candidates, this would amount to approximately 11,310 personnel documents in total. Dividing this evenly among the 53 board members results in roughly 213 documents per board member, not accounting for any of the additional 2,153 above and below zone candidate records. The volume of information demands thorough examination, significantly straining cognitive resources and making it difficult to maintain attention and accuracy throughout the review process (Danziger et al., 2011).

Recent survey results of selection board members suggested a preference for more than one reviewer per record, indicating that board members may feel rushed and overwhelmed by the volume and complexity of the records (Cognitive Performance Group, personal communication, April 25, 2024). This sense of urgency can lead to errors in the

decision-making process. Additionally, the necessity to annotate and highlight key points in each record demands a high level of detail-oriented focus. This meticulous task can be mentally exhausting, especially when done repeatedly over a long period (Deck & Jahedi, 2015). This overload may lead to rushed decisions and increased reliance on heuristics, which are more prone to biases (Deck & Jahedi, 2015; Sweller, 1988; Tierney, 2011).

Anchoring bias can manifest in this stage when initial information or the first impression of a candidate disproportionately influences subsequent judgements (Belle et al., 2017; Chen & Kemp, 2015; Northcraft & Neale, 1987; Tversky & Kahneman, 1978). For example, a standout achievement highlighted early in the review might unduly weigh on the board member's overall evaluation, despite other relevant information suggesting a more balanced view. Confirmation bias may occur when board members subconsciously seek out and favor information that confirms their initial impressions or expectations about a candidate, leading to skewed evaluations (Chapman & Chapman, 1969; Kahneman, 2011; Wason, 1960).

In summary, the initial record review process is fraught with challenges that can compromise the fairness and accuracy of promotion decisions. The high volume and complexity of records, combined with the cognitive strain of detailed annotations, can lead to cognitive overload. This, in turn, increases the risk of biases such as anchoring and confirmation bias, which can skew evaluations.

B. AREA AT RISK #2: THE TANK

One significant risk in the tank is confirmation bias, the tendency to favor information that confirms one's preconceptions, leading to skewed evaluations (Wason, 1960). This bias can manifest in various ways. For instance, board members may have preconceived notions about candidates from certain backgrounds or with specific experiences. If a board member believes that candidates with prior enlisted experience are more suitable for promotion, they might selectively focus on positive aspects of those candidates' records while overlooking shortcomings or the strengths of candidates without such experience(Ditto & Lopez, 1992). Additionally, confirmation bias can occur when a board member prefers another member's briefing style or finds the presenter more likable.

This preference can lead to interpreting and recalling their presentations more positively, reinforcing the initial preference. Consequently, the board member may be more likely to favor the preferred briefer's presentations and vote accordingly, unknowingly altering the decision outcome.

Another major risk in tank is overconfidence bias. With limited time to vote during a brief, board members have to make decisions without sufficient scrutiny, relying on their intuition (System 1 thinking) rather than deliberate analysis (System 2 thinking) (Kahneman, 2011). Experienced board members may depend too heavily on their past experiences and gut feelings, potentially overlooking critical information in a candidate's record. They might believe their initial judgement is sufficient and accurate, which can result in important details being missed (Kahneman, 2011; Mahajan, 1992). Furthermore, the structure of the tank does not provide a specific forum for board members to challenge or provide counterfactual reasoning to briefers' grades. This limitation, compounded by the constraint of time, can prevent thorough deliberation and discussion. As a result, board members might quickly accept the initial assessments without adequately considering alternative viewpoints or potential biases (Mahajan, 1992).

Anchoring bias can also play a significant role in the tank. Anchoring occurs when the initial information or the first impression of a candidate disproportionately influences subsequent judgements (Tversky & Kahneman, 1978). If the first board member to review a candidate's record assigns a high grade and makes positive comments, subsequent board members might anchor on this initial assessment. Even if they encounter information that contradicts the initial positive assessment, their final judgement may still be biased towards the initial positive evaluation. Additionally, the order in which candidates are briefed can create anchoring effects. For example, if an exceptionally strong candidate is presented early, the high praise and scores they receive can set an anchor, making subsequent candidates seem less impressive by comparison, even if they are objectively strong candidates.

C. AREA AT RISK #3: THE CRUNCH

Finally, the crunch process is at risk of anchoring bias which occurs when initial information unduly influences subsequent judgements (Tversky & Kahneman, 1978). During the crunch, when a record is reevaluated, the first board member's grades and annotations are marked on the record, and the second reviewer then grades the record in a different color. This process leaves room for anchoring bias, as the second board member may unconsciously rate the candidate's records more favorably based on the positive remarks of the initial reviewer, even if the subsequent records are less impressive.

Anchoring bias in this context can be particularly insidious because it can subtly and progressively influence the second reviewer's perception. When the second board member encounters the initial grades and annotations, these can act as psychological anchors, setting a reference point around which their subsequent evaluations revolve (Chen & Kemp, 2015; Galinsky & Mussweiler, 2001). For instance, if the first reviewer has highlighted a candidate's leadership qualities and given high marks, the second reviewer might focus more on finding additional evidence to support this positive view, rather than evaluating the record with fresh eyes. This can lead to a confirmation of the initial reviewer's assessment, even if there are aspects of the candidate's performance that warrant a different evaluation.

While anchoring can be beneficial for decision-makers by highlighting critical details like community values or breakout comments, under cognitive load, it often leads to suboptimal decisions. The board members, pressed for time and dealing with extensive records, may unconsciously prioritize efficiency over accuracy, leading to biased evaluations that do not fully reflect the candidate's qualifications or performance (Chen & Kemp, 2015).

The Navy's officer selection board process is vulnerable to cognitive load and biases such as confirmation, overconfidence, and anchoring, particularly during initial record reviews, tank, and crunch sessions. These biases may lead to suboptimal and skewed promotion decisions. Addressing these vulnerabilities is crucial for ensuring a fair and effective selection process. The next chapter will outline a suggested methodology for

future researchers, providing a succession plan to identify and mitigate these biases effectively, thereby enhancing the integrity of the promotion system.

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V. METHODS

This ongoing study aims to examine how officer selection board members process information presented to them when reviewing candidates' OMPF and identify pain points during their briefing process. This chapter provides a plan for future researchers, outlining a detailed methodology to conduct the study. It includes research design, data collection techniques, and analytical approaches to investigate the impact of cognitive biases and cognitive load on promotion decisions. By following this plan, successors can address the risks identified in the analysis and ensure a fairer selection process.

A. PARTICIPANTS AND RECRUITING

1. The Cognitive Performance Group's Survey

The Cognitive Performance Group (personal communication, April 25, 2024), funded by the Navy Personnel Command, conducted a study to gather information about the relative importance of various data items for promotion decision-making and to assess what is working well and what could be improved when presenting data to officer and enlisted board members. Their survey received 114 responses from 54 senior officers and 60 senior enlisted personnel (Cognitive Performance Group, personal communication, April 25, 2024). Their findings highlighted common practices and areas for improvement when briefing a servicemember's records to the rest of the selection board members, particularly among those with extensive board experience.

2. Qualtrics Recruitment Survey

Following the Cognitive Performance Group's (personal communication, April 25, 2024) findings, the Talent Management Center of Excellence (PERS-00K) at Navy Personnel Command initiated a participant recruitment process for this study. An online Qualtrics Recruitment Survey link was disseminated via email on May 15th, 2024 (refer to Appendix A). The primary objective of this email outreach was to acquire the contact details of potential interview candidates who had participated in the Cognitive Performance

Group's study. This recruitment survey was sent to the 114 individuals who had responded to the previous survey.

3. Future Researcher's Role

A future researcher will contact the respondents of the Qualtrics Recruitment Survey to set up in-depth, structured interviews. These interviews aim to enhance the depth and context of the Cognitive Performance Group's findings. Ideal interviewees will include at least 10 USN line officers, CDR or above, representing diverse designators, with experience ranging from limited board involvement (fewer than three selection boards) to seasoned participants (having served on over 10 selection boards) (Guest et al., 2006). These interviews are expected to provide valuable insights into the challenges faced during the officer selection board process and help identify areas for process improvement.

B. MATERIALS

The materials used will be the online Qualtrics Recruitment Survey (refer to Appendix A), the Interview Information Sheet (refer to Appendix B), the Interview Questions (refer to Appendix C), the Interview Question Matrix (Table 1) and the Sample OMPF, which was not available at the time of publication.

The Interview Questions (refer to Appendix C) were developed to understand board member's level of expertise and how confident they were going into the selection board. The questions were designed to tease out existing pain points with the current decision support tools and gain insights on ways to improve the functionality of the technology that already exists.

Additionally, some of the questions are designed to better understand how board members are using the OMPF. The questions have the board members focus on identifying which parts of the record assist in reviewing, assigning grades, and help them brief the candidate the rest of the board in the tank. It also aims to determine which components may be extraneous based on the decision criteria provided by the convening order. There are a few questions about best practices and suggestions board members might have, one specifically that asks if they have ideas from other military services.

The Interview Question Matrix (Table 1) groups each of the interview questions into relevant themes and categories that align with the focus of this study. By systematically organizing the questions, the matrix highlights key areas of cognitive biases, such as anchoring bias, confirmation bias, and homophily, as well as other challenges faced during the selection process. The list is not exhaustive, nor does it negate the necessity to thoroughly familiarize and annotate each data point during interviews. Table 1 simply highlights some of the cognitive processes that were considered while the interview questions were being written.

Table 1. Interview Question Matrix

Questions	**Categories**	**Themes**
How many years have you served in the Navy (including prior enlistment, if applicable)?	Expertise/Tenure	Overconfidence Bias Confirmation Bias
What is your current rank?	Expertise/Tenure	Overconfidence Bias
Age/race/gender?	Demographics	Confirmation Bias Potential Bias Awareness Homophily
How many times have you served as a voting member on a Navy selection board (statutory or administrative)?	Experience/Motivation with Promotion Boards	Decision Fatigue Overconfidence Bias
Why do you serve on boards?	Experience/Motivation with Promotion Boards	Intrinsic Motivation Confirmation Bias
What do you find most helpful about the way the Navy currently furnishes you with information and resources to prepare your briefs?	Decision Support Tools Initial Record Review	Information Accessibility Training Cognitive Load
How about pain points as a briefer? What challenges do you regularly face related to the information and resources you must use to prepare your briefs?	Initial Record Review Grading Brief Preparation Information Processing Challenges	Volume of Records Complexity of Information Annotation Difficulty Decision Fatigue
Where do you typically start? What information do you focus on first? Second? Third?	Initial Record Review Grading Brief Preparation	Prioritization Strategies Information Hierarchy Anchoring Bias
How do you integrate across information in a personnel file to arrive at a recommendation? Can you tell us a little bit about your process for assembling this information into a brief and recommendation/grade on the record?	Decision Support Tools Initial Record Review Grading Brief Preparation Information Processing Challenges	Volume of Records Complexity of Information Annotation Difficulty Confirmation Bias

Questions	Categories	Themes
Where do you get "hung up"? What are the challenges you sometimes or regularly face as you assemble this information into a brief and recommendation/record grade?	Initial Record Review Grading Brief Preparation Information Processing Challenges	Volume of Records Complexity of Information Anchoring Bias Conflicting Data
Are there specific types of information that you feel are currently underrepresented in personnel records that could be valuable to briefers and board members for making recommendations and selections?	Information Processing Challenges	Information Gaps, Critical Data Points Confirmation Bias
Have you observed any best practices from other services in terms of information presentation that could be adopted by the Navy to enhance the quality of briefs presented to selection board members?	Information Processing Challenges	Best Practices Cross-Service Comparisons Homophily
Do you have any examples of instances where conflicting information in a personnel file has made forming a recommendation/record grade particularly challenging? If so, tell me about it.	Information Processing Challenges	Conflicting Data Decision-making Difficulty Confirmation Bias
Can you share any experiences where your initial impressions of a candidate changed during the process of reviewing their records? What about during a tank session?	Initial Record Review Information Processing Challenges	Decision Fatigue Confirmation Bias Anchoring Bias
Do you alter your strategy for reviewing records when you are in the crunch? How do you decide what to elaborate on? Do you generally agree with the first briefer's assessment?	Information Processing Challenges Crunch	Anchoring Bias Decision Fatigue
What information do you find most useful when briefing a record in the crunch? Is there any information that proved more important during the crunch than during the original brief?	Crunch	Anchoring Bias, Critical Information Identification

C. PROCEDURES

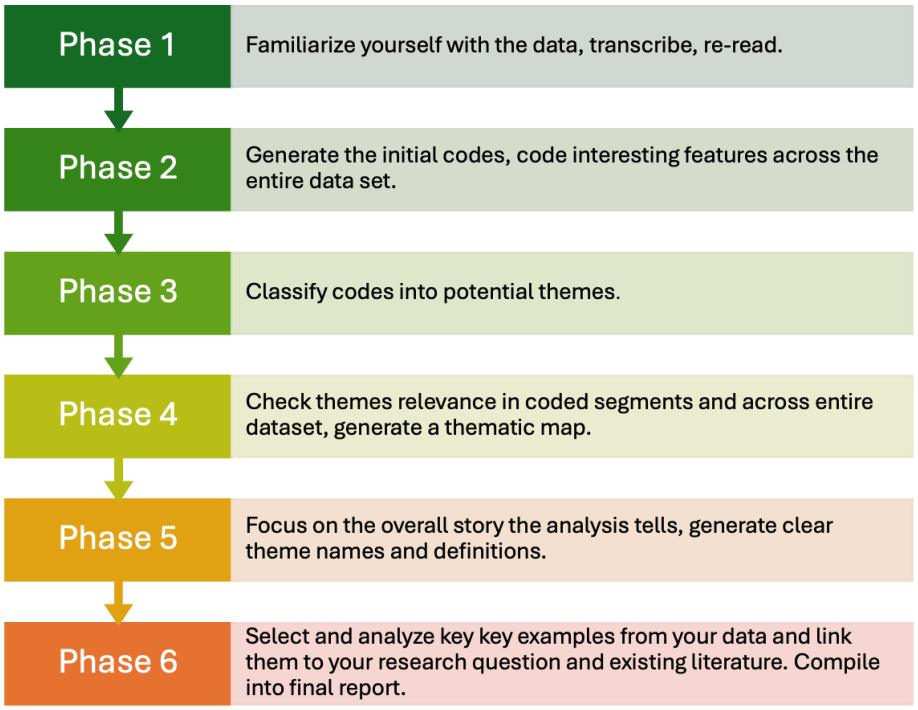
The Qualtrics Recruitment Survey closed on May 20th, 2024. Shortly after, the participants will receive an email to set-up the interview date and time. The structured interviews will take place remotely, over Microsoft Teams. All interviews will occur with both interviewer and participant cameras on, barring any accessibility issues. Ideally, there will be one interviewer asking the questions with a notetaker available to mitigate technical issues and coordinate a secondary recording source. Each interviewee will be provided with an Information Sheet (refer to Appendix B). The Information Sheet explains the purpose of the study, that the interview will be recorded and kept confidential, that it will take approximately 60 minutes and how the data will be used.

Each participant will be assigned an identification number in the study to protect their identity as the data is being collected. Before the interview begins, the interviewer will introduce themselves and the notetaker. The purpose of the interview will be reiterated to the participant and the participant will be reminded that their responses will be kept confidential and that they can withdraw at any time. Consent will be confirmed verbally before starting the recording. Once consent is received, the Microsoft Teams transcription feature will be turned on to record the audio in real-time. The notetaker will also turn on the secondary recorder to mitigate potential data loss.

The interview will proceed according to the script (refer to Appendix C), which includes introductory remarks, consent confirmation, and structured questions. The interview will start with an introduction and consent confirmation, followed by structured questions designed to elicit detailed responses about the participants' experiences and perceptions of the officer selection board process. Follow-up questions may be asked for clarification. The notetaker will monitor the recording devices and take additional notes on key points and non-verbal cues. The session will conclude with the interviewer thanking the participant, explaining the next steps, and addressing any questions.

Once all interviews are completed, thematic analysis will be employed to evaluate the data, following Braun and Clarke's (2006) six-phase framework. Each interview transcript will be coded and organized thematically. This approach aims to better

understand the cognitive processes and challenges faced by board members, and to develop strategies to mitigate cognitive biases and decision fatigue. Given the expected complexity and nuance of the data, Braun and Clarke's (2006) flexible methodology is well-suited for social and psychological studies. Figure 6 outlines the steps to be followed once all interviews are conducted.



There are six phases of thematic analysis that will be employed once all interviews are complete.

Figure 6. Phases of Thematic Analysis. Adapted from Braun and Clark (2006).

Phase 1 involves listening to the recordings and reviewing the transcriptions to familiarize oneself with the data and identifying general themes that emerge within the data (Braun & Clark, 2006). This phase is one of primarily familiarization and organization.

Phase 2 of this framework is the initial coding phase. The researcher will be begin the process of extracting patterns from the list of ideas that were created from Phase 1 (Braun & Clark, 2006). This can be done manually or using software depending on the size

of the data and the preference of the researcher. Braun and Clark (2006) note that a limitation of the process of initial code generation is that the context is often lost and they advise the researcher to keep some of the data surrounding the codes as to not misconstrue the concepts being extracted.

Phase 3, often considered the most challenging phase, involves categorizing the codes into themes. According to Braun and Clark (2006), the importance of a theme is not determined by its frequency in the dataset but by its relevance to the research question. This step involves organizing different codes into potential themes and using visual representations such as tables or mind maps to aid this process (Braun & Clark, 2006). It is important to consider relationships between codes, themes, and different levels of themes. By the end of this phase, the researcher will have a collection of candidate themes and sub-themes, though nothing should be discarded yet (Braun & Clark, 2006). This method's flexibility ensures that the primary value of identified themes lies in their ability to provide meaningful insights rather than their prevalence. When all the candidate themes are collected Phase 4 will begin.

Phase 4 involves refining the candidate themes; some candidate themes may be discarded due to insufficient data, while others may merge or split into separate themes (Braun & Clark, 2006). They use Patton's (1990) criteria of internal homogeneity and external heterogeneity to ensure that themes are internally consistent and also distinct from each other. The review process has two stages: first, checking if the data within each theme form a coherent pattern; second, ensuring the themes accurately represent the entire dataset (Braun & Clark, 2006; Patton, 1990). This phase will likely require re-coding the data. However, it is important to stop refining when further changes no longer add significant value. The result of this phase should be an overall story about the data, a thematic map may be even helpful (Braun & Clark, 2006).

In Phase 5, the researcher will refine and define the themes (Braun & Clark, 2006). Each theme should have a clear and concise definition, capturing its essence and relevance to my research questions. This phase involves writing detailed analyses for each theme, ensuring they tell a coherent story. Braun and Clark (2006) caution again making the

themes too complex, if unable to simplify then go back to Phase 4. The authors assert that the names should be informative and tell a clear picture about the data.

Phase 6 involves the final analysis and writing of the report. This stage aims to present the data's story convincingly, with a clear, logical, and engaging narrative (Braun & Clark, 2006). The report should provide enough evidence for each theme without being repetitive. The final write-up must interpret and analyze the data in relation to your research questions, making a coherent argument rather than just describing the themes (Braun & Clark, 2006).

Once the final report is complete, I recommend triangulating the results with the Cognitive Performance Group's (personal communication, April 25, 2024) report for further interpretation.

D. ANTICIPATED FINDINGS

Based on the literature and available descriptions of board proceedings from our research team, I anticipate that participants will indicate that selection boards are too long and cumbersome. I expect that experienced board members will find the current decision support tools adequate, while less experienced members may be hesitant to express their true opinions. Although board members are accustomed to reviewing complex personnel documents such as the PSR and OSR, this does not necessarily mean these formats are optimal for the rapid facilitation of presenting, voting, and selecting the next generation of officers.

Informally, discussions within the USN and USMC personnel suggest several potential improvements could be made to the technology used in board rooms. One idea is to incorporate more interactive and user-friendly digital tools, inspired by the USMC's Digital Board Room (Moore, 2024). I believe interviews in this study may call for a way to streamline the review process to reduce cognitive load.

Additionally, the board members of both officer and enlisted selection boards have expressed interest in having periodic breaks throughout the boards as well as structured debrief sessions after selection boards (Cognitive Performance Group, personal

communication, April 25, 2024; Moore, 2024). I expect those suggestions may arise from board members in this study as well.

E. LIMITATIONS

Several important limitations should be considered when conducting these interviews. One potential limitation is a small sample size, which could limit the generalizability of the findings. At the time of publication, the number of respondents to the Qualtrics Recruitment Survey was unknown. To ensure adequate representation, I recommend conducting at least 10 interviews with board members. However, because the study focuses solely on active-duty line officers, data saturation may occur quickly, potentially limiting new insights (Guest et al., 2006). If fewer than 10 participants are available, it is still possible to identify meaningful themes, although the breadth of perspectives might be narrower. If future researchers have the resources, I suggest expanding the sample size to include other selection board categories beyond the scope of this study to include enlisted, reserve, staff and administrative boards.

Another limitation is that all the participants who will be interviewed in the study are volunteers. More motivated individuals related to the study could be more likely to volunteer, potentially skewing the study results (Heckman, 1979). Random sampling is generally considered the best method to ensure quality results, as it minimizes selection bias and increases the generalizability of the findings (Cochran, 1977). However, voluntary participation is crucial for this study's success. Selection board members' buy-in is essential for identifying problems and implementing changes, as they are directly involved and possess valuable insights. Therefore, it is more beneficial to engage willing volunteers who are motivated to contribute meaningfully, rather than imposing participation or selecting randomly.

Finally, to ensure that the study did not interfere with the integrity of the actual decision-making process, the interviews were conducted retrospectively rather than in real-time. This approach means we cannot capture exactly what was happening as it occurred. Retrospective accounts from board members may lack complete accuracy due to memory limitations and the inability to recall every detail perfectly. Although we cannot be entirely

certain of this, it is highly unlikely that participants would intentionally misrepresent their actions.

VI. RECOMMENDATIONS AND CONCLUSION

A. RECOMMENDATIONS

The Navy struggles with human subjectivity in selection boards, balancing quantitative metrics that enhance accuracy like RSCA and but increase cognitive load with qualitative assessments that offer depth but risk bias. This trade-off affects the objectivity and efficiency of the selection process (Helzer & Bacolod, 2022). To address the inherent challenges of the complex decision-making environment the board members face and to ensure the selection of the best and most qualified officers, I recommend the Navy considers these three mitigation strategies to reduce the risk of bias in officer selection boards.

1. Offload to Automation

First, automating parts of the initial record review process can significantly reduce the administrative burden on selection boards by extracting objective officer performance data more effectively before the review begins. This system can leverage data such as the last five RSCAs, hard and soft break out statements, routine checks for negative issues, passing the physical fitness assessment, and consistent promotion recommendations. By automating these tasks, cognitive load on board members is reduced, allowing them to focus on nuanced evaluations and shorten the selection board duration.

Automated systems can present information objectively, minimizing the risk of biases such as confirmation bias and anchoring bias. Features like data extraction can automatically summarize performance metrics, reducing manual workload, while comparative visuals such as the USMC's Comparative Assessment tab can help board members quickly understand a candidate's performance relative to their peers (Moore, 2024). Alerts can flag discrepancies or notable patterns to ensure critical information is not overlooked, and visual dashboards can present key attributes in an accessible format, making data easier to interpret. By implementing these automated tools, the selection board process can become quicker and less prone to human error.

2. Utilize a Briefing Template

A designated briefing template that all board members are required to use during the tank sessions would improve the consistency and quality of record briefs. This would mitigate the risk of biases by making it harder to overlook or overemphasize record information. It would also reduce the reliance on the presenter's subjective style or likability, which can introduce confirmation bias. A template would eliminate the need for board members to decipher briefers' annotations on cluttered records, streamlining the voting process by consolidating all information into a single focal point.

A checklist could be included on the template to ensure that all mandatory information is filled in while the briefer is preparing the record. The template might feature clearly defined sections for key elements such as the grade the briefer has assigned, ta section for RSCAs, performance over time, individual promotion recommendations, and overall performance trait averages. It could also include a section for breakout comments from FITREPS and remarks the briefer wants to highlight.

3. Shorter Board Days or Longer Breaks

Excessive board duration leads to cognitive overload and decision fatigue, which can increase the likelihood of biased decision-making. To address this risk, the decision-making process should be structured to include regular breaks, which can help alleviate fatigue and maintain decision quality. Limiting the number of records reviewed in one session can manage cognitive load and reduce heuristic-driven errors. Providing more time for the initial record review allows for periodic checks and double-checks of previous work, or adding an additional reviewer to share the burden can further reduce individual workload. Implementing required breaks, such as shorter days for group physical training a few days a week, can refresh board members' mental states. Additionally, access to a dedicated restorative space equipped with relaxing music, dim lighting, and plush seating for 15-minute breaks can offer board members the opportunity to recharge. These measures collectively aim to manage cognitive load effectively, minimize biases, and ensure a fairer and more accurate selection process.

B. CONCLUSION

The purpose of this study was to understand how selection board members process the information presented to them in U.S. Navy officer selection boards and pinpoint the challenges inherent in this complex decision-making environment. By drawing on research from the fields of behavioral economics and psychology and making comparisons with other military services and industry best practices, several key findings emerged.

The study suggests that the use of automation, a standardized briefing template, and a restructured board day can significantly mitigate cognitive overload and biases. Automation can reduce the administrative burden and cognitive load by extracting and presenting objective performance data efficiently. A standardized briefing template can ensure consistency and reduce bias during record reviews. Additionally, restructuring board days to include regular breaks can combat decision fatigue, further enhancing the decision-making process.

These recommendations collectively aim to create a more fair and effective selection process. By implementing these strategies, the U.S. Navy can improve the transparency and efficiency of its officer selection boards, leading to more merit-based promotions that align with the Get Real, Get Better principles.

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APPENDIX A. QUALTRICS RECRUITMENT SURVEY

The Naval Postgraduate School (NPS) is conducting a study on behalf of Navy Personnel Command to understand which information from personnel records is most valuable or important to briefers when they are summarizing a performance record for the board.

We are soliciting volunteers who have prior experience serving as briefers in selection boards to be interviewed by NPS faculty regarding their experience. Data will be kept anonymous, and we will not be assessing any past decisions or briefer performance. The purpose of the study is to determine whether we can improve tank displays for selection boards now, and in the future.

If you are interested, please click the "-->" button below and fill out the volunteer form on the next page, which only takes a few moments. A member of the NPS research team may then follow up with you directly with further instructions.

→

Please fill out the form below if you are interested in participating in the research project with the Naval Postgraduate School.

First Name

Last Name

Rank

Preferred Email

Which boards do you have the most experience with?

- ○ Enlisted
- ○ Officer

How experienced are you with briefing records to selection boards?

Inexperienced (fewer than three boards)	Somewhat inexperienced (three to six boards)	Experienced (seven to 10 boards)	Very Experienced (more than 10 boards)
○	○	○	○

→

NSPD24.46

Thank you for volunteering to help shape the future of selection boards! Someone from our research team may be in touch with you for further participation in this effort.

We appreciate your time and willingness to help with this important effort.

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APPENDIX B. INFORMATION SHEET

Project: Performance Evaluation and Promotion Recommendation: Best Practices for Selection Boards

Project ID: NPS-24-N064-A

We are a team based at the Naval Postgraduate School working with the Talent Management Center of Excellence (PERS-00K) at Navy Personnel Command to support the improvement of the Navy's performance management system, including the selection board process.

Today, we are seeking feedback from selection board members, and in particular, briefers, to assess their current use of information from performance records, as well as user experiences with the current decision support tools used in tank sessions. We seek to understand: 1) how selection board members process information presented to them in the Official Military Personnel File (OMPF), Performance Summary Records (PSR), and information displays, 2) what pain points they experience in processing performance evaluation and officer record information, 3) and what recommendations you have regarding best practices and decision support tools that might better assist briefers in preparing their briefs.

We estimate it will take you 60 minutes to complete the interview. Thank you for your participation.

ROUTINE USES: Your responses in this interview will be combined with the responses of all others and will not be attributed to any single individual. The anonymized responses will be stored on a password- protected server at the Naval Postgraduate School.

CONFIDENTIALITY: All responses will be kept COMPLETELY confidential. All the interview responses will be coded and statistically summarized and will not be attributed to any single individual. Individual responses will not be shared with Navy Personnel Command.

PARTICIPATION: Completion of this interview is entirely voluntary. Failure to respond to any of the questions will NOT result in any penalties except possible lack of representation of your views in the final results and outcomes. You may withdraw your participation in the interview at any time by simply indicating that you would like to discontinue participation.

RECORDING: Do you consent to having this interview recorded and transcribed for the purpose of data analysis and coding?

Thank you for agreeing to be part of our study!

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APPENDIX C. INTERVIEW QUESTIONS

1) First, we'd like to know a little about you and your career in the Navy.
   a) How many years have you served in the Navy (including prior enlistment, if applicable)?
   b) What is your current rank?
   c) Age/race/gender?

2) Please tell us a little bit about your participation in past selection boards.
   a) How many times have you served as a voting member on a Navy selection board (statutory or administrative)?
   b) Why do you serve on boards?

3) We'd like to know a little bit about your experiences and observations as a briefer in these proceedings. We are interested in how briefers summarize the raw material and information they are furnished with to generate their brief to the board as well as their recommendations/record grades.

   a) As a briefer, when you are handed a collection of personnel records to summarize and brief, what do you find most helpful about the way the Navy currently furnishes you with information and resources to prepare your briefs?

   b) How about pain points as a briefer? When you are handed a collection of personnel records to summarize and brief, what challenges do you regularly face related to the information and resources you must use to prepare your briefs?

4) We'd like you to talk us through your thought process as you consider a hypothetical personnel file.
   [Provide interviewee with a sample/hypothetical personnel record.]

   a) Where do you typically start? What information do you focus on first? Second? Third?

   b) How do you integrate across information in a personnel file to arrive at a recommendation? Can you tell us a little bit about your process for assembling this information into a brief and recommendation/grade on the record?

   c) Where do you get "hung up"? What are the challenges you sometimes or regularly face as you assemble this information into a brief and recommendation/record grade?

d) Are there specific types of information that you feel are currently underrepresented in personnel records that could be valuable to briefers and board members for making recommendations and selections?

5) What physical or technological tools, if any, do you currently use to assist you with generating a recommendation/record grade? How do they assist you? How could they be improved?

6) Have you observed any best practices from other services in terms of information presentation that could be adopted by the Navy to enhance the quality of briefs presented to selection board members?

   a) Follow up: What do you feel the Navy could do to improve the way it furnishes you with information and resources (including training) to prepare your briefs and recommendations? Consider pain points you've experienced, observations, as well as anything you know how other services approach this process.

7) Now we'd like to ask you a little bit about some of your experiences making decisions in the following contexts. Please say as little or as much as you'd like about each.

   a) Do you have any examples of instances where conflicting information in a personnel file has made forming a recommendation/record grade particularly challenging? If so, tell me about it.

   b) Can you share any experiences where your initial impressions of a candidate changed during the process of reviewing their records?

8) During tank sessions, do the reactions of other board members impact your discussion of a record you are briefing (e.g., if several laser pointers highlight something in a record, if someone personally knows a candidate, if a board member verbalizes a mistaken comment on a record)?

   a) Are these reactions distracting during a brief?

   b) Do you ever second-guess your initial look at a record based on reactions of other board members in the tank?

9) Do you alter your strategy for reviewing records when you are in the crunch? How do you decide what to elaborate on? Do you generally agree with the first briefer's assessment?

10) What information do you find most useful when briefing a record in the crunch? Is there any information that proved more important during the crunch than during the original brief?

11) We will wrap up now, but before we do, we want to give you a chance to offer any final thoughts. Do you have any additional thoughts about this topic or selection boards in general that you would like to share?

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