NPS-HR-23-264

ACQUISITION RESEARCH PROGRAM
SPONSORED REPORT SERIES

An Analysis of the Australian Defence Force Administrative Sanctions System

March 2023

Maj Lincoln R. Sudholz, Australian Army

Thesis Advisors: Dr. Maxim Massenkoff, Assistant Professor
Dr. Paul Lester, 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

The research presented in this report was supported by the Acquisition Research Program of the Department of Defense Management at the Naval Postgraduate School.

To request defense acquisition research, to become a research sponsor, or to print additional copies of reports, please contact the Acquisition Research Program (ARP) via email, arp@nps.edu or at 831-656-3793.

Acquisition Research Program
Department of Defense Management
Naval Postgraduate School

ABSTRACT

What happens when an Australian servicemember misbehaves? When a serving member of the Australian Defence Force engages in poor performance or behavior that contradicts Defence values, but is not criminal, they may be subject to administrative sanctions. These sanctions are intended to motivate a change in behavior or provide grounds for dismissal. However, there has been little examination of how these sanctions are applied, the impact they have on those the organization wishes to retain, or the fairness of the system. This research begins to address these gaps by using descriptive statistics, Kaplan-Meier survival analysis, and Linear Probability Models to understand how sanctions are applied to the Australian Army. We find that there was an increase in the use of sanctions from 2011 to 2020. Soldiers in 2020 were 75% more likely to receive a sanction compared to 2011. Additionally, receiving a sanction early in one's career is linked to a shorter length of service. Our findings also revealed some variability in supervisor decision-making, indicating a lack of consistency in the application of sanctions. Furthermore, we find that there is some correlation between the location where a member is posted and the likelihood of receiving a sanction. In the worst locations, soldiers are 26% more likely to receive a sanction.

THIS PAGE INTENTIONALLY LEFT BLANK

ACKNOWLEDGMENTS

I would like to express my deepest gratitude to my wife, Cara, who followed me on this journey. Her decision to come with me overseas and leave her own pursuits behind meant giving up more than I should have ever asked of her. The patience, support, and many she snacks provided made the long days easier. I am forever grateful for her unwavering dedication and sacrifice.

For John, who was an inspiration for this thesis and showed genuine enthusiasm for the idea, my gratitude for making settling into the U.S. easier for us. He was a great friend whose time was tragically cut short.

Thank you to Professor Massenkoff for his time and valuable guidance and to Professor Lester for discussing the idea and reviewing. Feedback is a gift.

THIS PAGE INTENTIONALLY LEFT BLANK

NPS-HR-23-264

ACQUISITION RESEARCH PROGRAM
SPONSORED REPORT SERIES

An Analysis of the Australian Defence Force Administrative Sanctions System

March 2023

Maj Lincoln R. Sudholz, Australian Army

Thesis Advisors: Dr. Maxim Massenkoff, Assistant Professor
Dr. Paul Lester, 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

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

LIST OF FIGURES

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF TABLES

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS AND ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACT	Australian Capital Territory
ADF	Australian Defence Force
ADW	Australian Defence Force Data Warehouse
CAPT	Captain
CDF	Chief of the Defence Force
COL	Colonel
CPL	Corporal
DFDA	Defence Force Discipline Act 1984 cth
KM	Kaplan-Meier
LCPL	Lance Corporal
LPM	linear probability model
LR	logistic regression model
LT	Lieutenant
LTCOL	Lieutenant Colonel
MAJ	Major
MILPERSMAN	Military Personnel Manual
NSW	New South Wales
NT	Northern Territory
NTHQLD	Northern Queensland
OCDT	Officer Cadet
PMKeyS	Personnel Management Key Solution
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analysis
PTE	Private
SA	South Australia
TAS	Tasmania
VIC	Victoria
WA	Western Australia

THIS PAGE INTENTIONALLY LEFT BLANK

I. INTRODUCTION

A. OVERVIEW

The administrative sanctions system of the Australian Defence Force (ADF) is designed to serve as a means of rehabilitation and retention of individuals or as evidence for termination of their service. It is crucial to consider the impact of this system on an individual's career to understand the post-sanction effects. Additionally, it should be noted that the ADF is striving to increase retention, as outlined in the Department of Defence 2022 report (Department of Defence, 2022), in order to meet the government's mandated increase in personnel levels. Ensuring that those who are exposed to the sanctions system choose to stay within the ADF, when the opportunity arises, is essential to achieving these goals. Thus, this study aims to investigate the impact of the sanctions system on retention within the ADF.

B. PROBLEM STATEMENT

While there has been considerable interest in the procedural aspect of the administrative policy to ensure compliance with legal requirements, there has been minimal examination of its overall impact on the careers of individuals within the organization. Despite the ADF's desire to retain these individuals, there is a lack of understanding of the long-term effects of sanctions on their careers.

C. RESEARCH QUESTIONS

The primary question addressed by this research is: What is the impact of an administrative sanction on the trajectory and duration of an individual career?

- How are sanctions implemented across the Australian Army, and is this done in a consistent way?
- Do administrative sanctions incentivize the desired behaviors of individuals?

Secondary questions include:

- Is there consistency in how administrative sanctions are applied by supervisors?
- Does the location of where a member is posted and live have an influence on whether administrative sanctions are likely to be issued?

D. THESIS ORGANIZATION

The remainder of the thesis proceeds as follows. In Chapter II, we provide the context for this research. There the discussion presents the institutional background of the ADF administrative sanctions system and summarizes the existing literature on the topic. Chapter III explains the data used to explore our research questions, before describing the analytical methodology and findings in Chapter IV. Finally, Chapter V examines the implications of the findings and provides recommendations for improvements in the sanctions system and process to retain personnel and for additional avenues for future research.

II. BACKGROUND AND LITERATURE REVIEW

A. INSTITUTIONAL BACKGROUND

The administrative sanctions system is an integral part of the administrative management framework in the ADF. These procedures are implemented to encourage service members to alter their behavior and remain within the organization (excluding termination of service). This section outlines the structure of the sanctions system, the processes that take place when performance falls short of expectations, and the intended and unintended outcomes of the system.

1. Framework

The performance of ADF members is managed through the legislative mechanisms of the Defence Act 1903, Defence Regulations 2016, and Defence Force Discipline Act 1982 (DFDA). These acts give the Chief of the Defence Force (CDF) the power to "provide personnel management that supports the appointment, enlistment, promotion and retention of appropriate persons for service in the Defence Force" (Defence Regulation, 2016, pt. I, s. 3), which is delegated to appropriate command positions through instruments of appointment. The administrative management policy has been designed referencing this legislation to ensure consistent application of these powers. This provides commanders with the procedures and policy to manage the careers of their subordinates.

2. What Happens When an Australian Servicemember Misbehaves?

When a serving member demonstrates poor performance or conducts himself or herself in a manner that conflicts with the organization's values, but does not constitute a criminal offense, the servicemember's behavior is addressed through the administrative management policy.[1] This policy allows for the imposition of administrative sanctions as

[1] There are times where administrative management policy is used to address behavior post criminal conduct, but this is outside the scope of this thesis.

a means of motivating a change in behavior to align with organizational expectations or as evidence for dismissal.

To ensure consistency in the application of this authority, the ADF has developed the *Military Personnel Manual* (MILPERSMAN) to standardize non-disciplinary personnel management across the organization (Australian Defence Force, 2016). This manual focuses on the performance of ADF members throughout their careers and provides commanders with several options, known as administrative sanctions, for performance rehabilitation. Table 1 lists the core options available under MILPERSMAN.

Table 1. Sanctions Descriptions. Adapted from MILPERSMAN Australian Defence Force (2016).

Sanction Name	**Description**
Counselling	The member is given an appraisal of his or her poor performance and how to change the behavior. Can be formal, which is recorded but not retained on the member's record. Typically used when a sanction is not imposed.
Formal warnings	Period of increased performance scrutiny that can lead to further sanctions. Has a defined period.
Censures	Permanent mark on record of poor performance. Member must request for it to be removed
Compulsory transfer of employment category	Member is trade transferred to another job category
Denying or delaying promotion	Member is not promoted or is prevented from being promoted in his or her period of eligibility
Reduction in rank	Member is permanently reduced in rank
Removal from appointment or locality	Member is moved within unit to another job or is changed locality (i.e., removed from overseas deployment)
Removal of security classification/clearance	Member loses security clearance which can affect work access.
Termination of service	Member's employment by Defence is ended. This is not a rehabilitation option but still categorized as a sanction

Administrative sanctions can have either a defined or indefinite duration. When servicemembers are sanctioned, they are placed under increased performance scrutiny for the duration of the sanction. This serves as an opportunity for them to improve their performance or face termination of their service. For instance, while a formal warning typically lasts between three and 12 months (Australian Defence Force, 2016), there is no maximum duration set. A censure, on the other hand, remains on a member's record indefinitely, unless the individual requests and receives approval for its removal.

3. Intended and Unintended Consequences

The imposition of administrative sanctions has intended consequences that can affect an individual's competitiveness for promotion, career opportunities, and training. These sanctions effectively halt an individual's career progression for the duration of the sanction and 12 months following a censure (which is a permanent mark on a member's record). The purpose of this is to encourage better performance. If a member does not receive another sanction within this period, it is assumed that the individual has improved and will no longer be at a disadvantage. However, the blemish on the member's service record can still be seen and create a disadvantage. For instance, expired formal warnings can still be taken into consideration when assessing a member's suitability for promotion within a reporting period. Members can request for certain sanction types, such as censures, to be removed from their record, but sanctions with defined durations cannot. Even though the system is intended to 'reward' behavior changes through continued service, it can be perceived as having a lasting impact on an individual's career.

B. LITERATURE REVIEW

There is limited academic research on the ADF's administrative management system outside of internal legal reviews. While these reviews examine the system's fairness from a legal perspective, they do not explore its impact from the perspectives of members or supervisors. By using an organizational fairness framework, it is possible to gain a deeper understanding of why some individuals may view the system as unfair. This may be due to perceived bias or subjectivity in the decision making of those who

impose sanctions, as well as external factors such as location that may influence the likelihood of receiving a sanction, further reinforcing perceptions of unfairness.

1. What Individuals Should Expect of the Sanction System

Whether the system is viewed as fair is often discussed from an anecdotal perspective, which is often only from the view of those who have interacted with the system. Decision makers believe they are making a fair and impartial decision, but this is only tested through legal reviews of the individual cases, not broadly across all sanctions. This section aims to review literature related to systems of decisions and fairness.

Colquitt (2001) explores the dimensionality of organizational justice using the four dimensions of justice structures, particularly distributive justice, procedural justice, interpersonal justice, and informational justice. These four justice dimensions underlie decision making in organizations. Distributive justice is where the outcomes of a decision are consistent with societal and organizational expectations. In the military, this is where everyone is given a "fair go" and, generally, the same punishment for the same poor performance. Procedural justice is where everyone is treated the same by the process, through the application of the same process, having a voice within the process, the lack of bias and consistency (i.e., the fairness of "means" rather than "ends") (Thibaut & Walker, 1975). This can be seen within the administrative sanction process, where members have the right to reply when a sanction is to be issued to them. All sanctions must be issued and reviewed in the same way, regardless of the severity. Interpersonal (also called interactional) justice is how people are treated within the procedure—are military members given enough support and time to respond when issued a sanction? Informational justice is where a process is transparent and explained adequately.

Colquitt (2001) used the experience-sampling method with survey data from a university setting and a workplace setting. This investigated which combination of the four types of justice creates a good structure to determine the factors for organizational justice. These factors included within-person variance and personality traits. The investigation also looked at predictive links between the dimensions and the outcomes using maximum likelihood estimations. Through both methods, Colquitt's (2001) results

show that all four factors are reasonable for conceptualizing organizational justice. Understanding these concepts through the military lens is important. Specifically, when individuals interact with the administrative sanction system, they expect to be treated within their view of fairness. This comes from the institutional values and legal construct of the administrative system. However, decision makers can skew what individuals see as fairness in the system, through biased or noisy decisions. If individuals who receive sanctions do not change their behavior, or do not continue their careers if they do, there could be a gap between the intent and design of the system's fairness and its application, thereby creating an unfair system.

Johnson et al. (2014) examined the use of procedural justice from the application angle and how that affects the person applying the procedure. This extends Colquitt's (2001) idea about how people view fairness within their organization. The authors looked at how people expect to be treated (fairness of outcomes, procedures, and interpersonal interactions), as well as why it can be difficult to treat people fairly within a system. This is applicable in the military setting as decision makers have the desire to make the fairest decision, but sometimes, they do not. This theory describes how acts involving self-regulation deplete a person's self-regulatory resources (how long you want to put in effort). Self-regulation is important as it is used to "block out distracting cognitions and emotions, align behavior with task goals and social norms, make choices, initiate action, and override impulses" (Johnson et al., 2014, p. 2). Military members are constantly making decisions that require self-regulation, and over time could make fewer fair decisions as depletion occurs. This is particularly true for those who cannot delegate certain decisions in the sanctions process and are constantly making procedural decisions.

The study by Johnson et al. (2014) found that justice behaviors vary from day to day, particularly with procedural justice. Especially with complex issues that require significant self-regulation, there is a larger draining effect associated with applying procedural justice. Use of interpersonal justice (for the military example, informal counseling or in-the-moment actions) had a positive effect on individual regulatory resources as it was perceived to be rewarding by those applying it. The ADF uses a mantra of dealing with personnel issues "at the lowest level" (that is, can the problem be

solved with the fewest people and resources). Johnson et al. (2014) study underscored that idea, suggesting that not only do people feel rewarded when they can apply interpersonal justice in lieu of procedural justice, they are more likely to continue to be able to self-regulate for future decisions. This also suggests that more use of procedural justice can lead to potentially fewer fair decisions, thus creating a negative view of the system by those who have had sanctions imposed on them.

2. Variability in Decision Making Related to the Application of Sanctions

Consistent decision making is a key factor in organizational fairness within a performance management system. When there is a lack of fairness and transparency in decision making, it can lead to a negative perception of the organization as "duty and drive do not march in lockstep with discontent" (S. White, personal communication, January 14, 2023). This could be a driver of undesirable behaviors such as discharge or continued poor performance. Having consistent decision making surrounding sanctions is key to the perception of fairness.

The book *Noise* (Kahneman et al., 2021) discussed the phenomenon of noise in decision making in organizations. As the authors framed it, noise is essentially inconsistency: random variability across individuals in decision making. It differs from bias as it can be measured without knowing about the decision to be made and has no pattern. If the same average-quality servicemember would be rated "Excellent" by one supervisor and "Terrible" by another, the rating process is noisy—even though on average the ratings are accurate.

By surveying professional underwriters, Kahneman et al. (2021) found significant differences in the premiums offered to customers by the underwriters. To test for noise, they surveyed the differences in premium rate estimations across professional underwriters before they provided the premium to the customer. They had each underwriter provide their assessment for the same risk profiles through what premium price they would offer to the customer. The organization guessed about a 10% variation in estimations of similar situations. However, they found differences in estimates across underwriters differed by up to 55%. This noise audit showed two types of noise:

occasional noise, external factors such as unknown random factors (like what mood the underwriter was in) that are part of everyday existence; and system noise, unwanted variability when decision makers assess the same occurrence.

A 1970s study was conducted on 208 judges to measure noise in decision making. The study was undertaken to examine the fairness of the system, as one would expect judges to provide relatively similar punishments for the same criminal events. This study of judgments made in the U.S. criminal system in the had a mean absolute difference of 3.8 years on an average sentence of 7 years. The same crime could have vastly different sentences based on the presiding judge. This variability was reduced using 'guardrails' introduced by more narrow guidelines on sentencing that still allowed a judge's discretion on what sentences could be given.

This is important to military organizations as consistency is a core value of administrative decision making—military members expect to be treated fairly and consistently under military processes. Nevertheless, noise can be wanted and unwanted. Variation in decision making would be desirable, for instance, when there are many solutions to a problem, while unwanted noise can impact a situation where consistency is desirable. The Australian Military uses "Mission Command" decision making—simply put, how to think, not what to think. This is an example of embracing noise in decision making as that random variability could provide a unique way to solve a problem. This works well in warfare, where uncertainty allows variable outcomes, but arguably not in administrative decision making. You do not want noise that causes such a wide variation in procedural decisions. This can lead to potential inconsistencies and even injustices that can undermine the effectiveness of an administrative system.

There are reasons to think that noise is especially pronounced in military decision making. First, the military often uses joint (ergo, group) processes for decision making, which can be affected by noise. Noise can be amplified by groups depending on what should be irrelevant factors, such as doing what is thought to be popular. Kahneman et al. (2021) emphasize "ideas about politics and economics are a lot like movie stars. If people think that other people like them, such ideas can go far" (p. 106). Second, the military expects members to demonstrate certain behaviors and values through their decisions.

This can cause variability in a decision made by military members who believe that a certain type of decision will be looked on positively (i.e., handing out a harsher sanction). This can also come from objective ignorance, the idea that you think your personal instinct is better than analysis. Third, the military inculcates a "bias for action," thus imbuing an overconfidence that creates noise from objective ignorance. Within the administrative management system, the military does not use significant matching or scales to guard rail decision making, which introduces noise as everyone must apply their own judgment on each decision they make.

Finally, decision makers do not have access to previous outcomes of similar situations. Each time a member conducts himself or herself poorly the situation is treated in isolation, and it is the judgment of the individual decision maker on the outcome. This could also lead to anchoring as a decision maker could look to other mechanisms to support efficient and fairer decision making in lieu of having guidelines.

Looking at anchoring bias, Bystranowski et al. (2021) conducted a meta-analysis on the anchoring effect in legal decision making, investigating whether decision makers would exhibit a bias to a numerical anchor value. This study assessed across various studies whether there was a consistent effect of anchoring bias. This study used the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) as its methodology. The researchers looked at criminal outcomes requiring a jail sentence and civil proceedings requiring monetary damages. The control "zero anchor" group was compared to the "anchor" group in each study. Where they could, the researchers considered other anchor variables that could affect the outcome. They found that there was a significant effect if an anchor was provided (Bystranowski et al., 2021). In the administrative decision-making context, there is a lack of existing information on what is considered an average sanction for any violation. However, decision makers will often make a sanction decision based on its effect on an individual's reporting. This could lead to the performance system becoming a numerical anchor, as a standard reporting period is 12 months. Consequently, this could lead to decision makers focusing not on what is the best timeframe for a sanction, but what their threshold is to use a bracket around the 12-

month period. This might be a mechanism for decisions makers to conduct an optimal speed-to-accuracy tradeoff.

Lieder et al. (2018) investigated decision making through a resource-rational anchoring-and-adjustment model. This model is based on bounded rationality, where there are limitations to making an optimal decision, and the most satisfactory option is selected. The researchers analyzed the numerical estimation capacity of individuals in areas where people had incomplete information. This approach is used to test how people adjust from an anchor based on the cost of time. The researchers found that decision makers are more willing to rely on anchoring if they perceive errors in the task as benign and speed of higher value. If accuracy is more important and they have more time, decision makers' anchoring bias decreases. Anchoring and adjusting appears to be a signature of resource-rational information processing, not just irrationality (Tversky & Kahneman, 1974). Since the sanction system has defined timeframes for parts of the process (e.g., the decision maker has 14 days to make a decision on what sanction to impose) using anchoring might be the required mechanism to ensure a timely decision is made.

Sengupta (1995) studied how irrelevant information can impact decision making. Using cognitive feedback and outcome feedback, subjects were asked to identify irrelevant information to improve decision quality. Outcome feedback describes how accurate a decision was. In the military context, this would be a commander being shown how his or her sanction durations compared to those of other decision makers after they had awarded the sanction and duration. Cognitive feedback shows what the factors were underlying the accuracy. This is focused on the individual's thought processes and helps him or her to better understand the cognitive processes that are involved in performing the task. This would entail getting access to different factors and metrics that lead to a certain sanction duration being given. The results were analyzed using statistical variance models. Sengupta (1995) showed that having access to cognitive feedback through a decision support tool was helpful to negating anchoring or relying on irrelevant information. This could be useful in reducing the effort in self-regulation, as discussed by Johnson et al. (2014).

Skeem et al. (2020) investigated how access to information, specifically risk assessments, or the views of individual judges can create bias in decision making. The researchers found that framing a decision through a risk lens rather than a blameworthiness lens changes how a sentence is applied to people of different socio-economic backgrounds. Decision makers who apply administrative sanctions are given a large amount of information to process. This may frame how they apply their decision-making process to a case. Although the methodology of a 2X2 factorial experiment does not apply to this study, the theory applies to the severity of the decision maker and could be used to assess consistency across the different services if there is found to be negative impacts of the system on retention. This also acts as a counterpoint to the idea of provisioning guardrails in decision making. Furthermore, this ties into the ego depletion theory of Johnson et al. (2014) in which decision makers would lean on these tools to reduce the effort to self-regulate. If the decision support tool for decision makers imposing sanctions creates unintentional bias when trying to reduce noise, then the system will continue to be unfair.

3. Place-Based Effects—Is There Something in the Water?

It is also important to understand some of the external factors that may impact the likelihood of getting a sanction. Specifically, place-based effects can be used to investigate whether base is a factor. Finkelstein et al. (2021) studied health outcomes for American Medicare recipients who changed their locations. This study focused on those who were 65 years old and looked at mortality rates as the metric for changes in health outcomes. Between 1999 and 2014, individuals who moved to locations with better health capital lived longer than those who moved to locations with poor health capital. The researchers found that a person in the first category gained 1.1 years, or about 5% of the average remaining life expectancy at 65. This was a short-term effect in the elderly, and there could be different outcomes for a younger population. A key limitation was defining important characteristics of health capital, particularly adjusting for unobserved health capital. Correlates with non-health characteristics appear to be important as well—areas with more mild weather, less crime, fewer vehicle incidents, and individuals with

higher income and education tend to demand better healthcare. This can lead to other effects that reduce mortality such as lower likelihood of obesity and smoking.

This methodology will be important for looking at place-fixed effects on administrative sanctions, as soldiers from the same location with similar performance records could be posted to different bases that have different levels of adverse incidents and could show whether the performance of the soldier changes or increases the likelihood of getting an administrative sanction. The location of each base could provide an environment that could affect the behavior outcomes of a soldier. This could be the base environment itself or the makeup of the surrounding city and demographics in which the base resides. As an example, Robertson Barracks in Darwin Northern Territory (NT) has exposure to far different societal characteristics than Victoria Barracks in Sydney New South Wales (NSW). This includes being a more isolated location, with a high crime rate (ABS, 2022) and limited access to amenities, as opposed to Sydney which has a lower crime rate, better support services, and greater access to social activities. There is a limitation, however, associated with knowing where each individual lives in relation to his or her base. Does the base itself have the characteristics that could influence the likelihood of a sanction, or could it be the postcode the individual lives in if he or she does not live on base?

4. Conclusion

These findings indicate a need to comprehend the decision-making processes and effects of the ADF's administrative management system. The system is expected to be procedurally fair, but perceptions that it is not can negatively impact behavior. Despite decision makers' efforts to make fair decisions, factors such as noise, biases, and ego depletion can compromise the consistency of outcomes, particularly when there is variability in the information provided. This can contribute to perceptions of unfairness and affect the behavior of those who are sanctioned. Further, there are external factors, such as location, that may influence the likelihood of receiving a sanction. The findings of this study could inform ADF policy and help to reduce the unintended impacts of the system, ultimately supporting rehabilitation and retention of servicemembers.

THIS PAGE INTENTIONALLY LEFT BLANK

III. DATA

A. SOURCES

This study utilized data from the Australian Army Career Management Directorate and the ADF Data Warehouse (ADW). The Career Management data included yearly performance scores for individual soldiers from 2011 to 2021. Data on Australian Army personnel who received administrative sanctions between 2011 and 2021, with each observation describing a step in the individual's sanction process, and data on full-time Australian Army personnel who were in service between 2011 and 2021 were sourced from the ADW. After combining and cleaning these data sets, the study had 57,230 unique individuals across 323,083 observations. Out of these individuals, 1,536 received one or more sanctions.

B. VARIABLES

Key variables included indicators of whether members received a sanction; did they receive a sanction in the first two years of hire; rank; were they married or separated; reason for the sanction; and supervisor ID. Key continuous variables included the duration of the sanction; years of service; age; and number of sanctions. Descriptions of all variables are provided in Table 2.

C. LIMITATIONS

As the Army records performance scores only once a year, the highest fidelity on performance changes is by year. Monthly changes would be ideal as the change in performance by year does not cover sanctions that are less than 12 months and does not cross a performance period.

The data used in this study for administrative sanctions included both the recommending and imposing authority for the decision maker. However, due to the open-text nature of the variables in the original data that identified the imposing authority, it was not possible to accurately identify the imposing authority for decision making. The only identifying information provided was a rank and last name, which made it difficult

to ensure consistent, unique identification when a name was provided. In future studies, having the recommending and imposing authority identified with PMKeyS (a unique personal identification number assigned to all ADF personnel) would provide more detailed information on the decision makers involved in the process.

Table 2. Variables Used in Analysis.

idkey	Unique ID number for each servicemember
supvid	Unique ID number for each supervisor who imposed a sanction
age	Age in years
yos	Years of service
report_year	Date year of the observation captured on 01 Jan each year
alcohol_involved_any	= 1 if alcohol was a factor in the sanction
warning_length_mth	Duration of sanction in months
gender	Category of gender Male or Female (intersex excluded due to small size)
male	= 1 if male
other_ranks	= 1 if other ranks (enlisted)
Corps	Category of job family
state_location	Category of states (including NQLD and SEQLD)
sanction_imposed	= 1 if a sanction was imposed
sanction_early	= 1 if a sanction was awarded within two years of hire
sanction_type	Category of the sanction type imposed
sanction_reason	Category of the reason for the sanction
recognised_relationship	= 1 if in a recognized relationship
married_sep_sr	= 1 if Married but living separately for service reasons
supvr_sanctions	Total number of sanctions imposed by a supervisor
rank	Category of ranks for other ranks and officers
E1_E5	= 1 if Private (Trainee) to Corporal
E6_E9	= 1 if Sergeant to Warrant Officer Army
OCDT_O3	= 1 if Officer Cadet to Captain
O4_O6	= 1 if Major to Colonel
sep_any	=1 if service member separated

This dataset only covered full-time Army members. It did not consider the other services. Although this population is the majority, it may not be representative of the ADF. The Royal Australian Navy and Royal Australian Air Force use the same processes but may impose sanctions in a different way due to their own organizational needs.

D. DESCRIPTIVE STATISTICS

Table 3 presents descriptive statistics of key variables in the study. The number of observations is 323,083, reflecting the total full-time Army population across each year from 2011 to 2021 (about 30,000 full-time members on average multiplied by 11 years). Continuous variables are shown as averages, while indicator variables are displayed as percentages. The average number of years of service is ten years, indicating that many members stay past their initial mandatory period of service. Female representation is about 12%, which is consistent with the Army population. About 65% of the population is in a recognized relationship, which aligns with the average age of 32. Only a small number of people (0.007%) are married but separated for service reasons, indicating that partners are traveling with their spouse on postings more often. Of the 30,958 members who were discharged during the period, 61% voluntarily separated, suggesting that more people are choosing to voluntarily discharge, which aligns with the ten-year period of service when members are in their late 20s or early 30s and may still be able to pursue a non-military career path. Most of the population (61%) is other ranks in the E1 to E5 rank bracket. Junior officers (OCDT to CAPT) make up most of the officer share at 12% of the total population.

Over the ten-year period 1.1% of the person-years had a sanction, with 12% having alcohol as a factor in the reason for receiving the sanction. The average duration of a sanction was 9.8 months with a standard deviation of eight months. This suggests there is a wide range of duration lengths awarded for sanctions. There were 1,136 Supervisors who gave sanctions, and those who did, on average, gave three sanctions during the observation period. There were 2,426 sanctions that had a timeframe, with an average duration of about ten months. The sanctions without a timeframe were those that were either permanent, such as censures or fines; no duration was needed, such as one-off counseling; or a duration was not recorded in the system.

Table 3. Descriptive Statistics.

Demographics	N	Mean	SD	Min	Max
Age	323,083	31.8	9.63	17.10	69.91
Years of service	323,083	10.2	9.07	0.00	50.93
Performance score that year	141,948	67.8	22.91	0.00	100.00
1 = Male	323,083	87.7	0.33	0.00	1.00
1 = Married or Common Law	323,083	65.1	0.48	0.00	1.00
1 = Married but living separately for service reasons	323,083	00.7	0.08	0.00	1.00
1 = Other Ranks	323,083	78.7	0.41	0.00	1.00
1 = Voluntary separation	30,958	61.1	0.49	0.00	1.00
Rank distribution					
PTE (REC) to CPL	323,083	61.4	0.49	0.00	1.00
SGT to WO1	323,083	17.3	0.38	0.00	1.00
OCDT to CAPT	323,083	12.4	0.33	0.00	1.00
MAJ to COL	323,083	8.6	0.28	0.00	1.00
Sanction statistics					
Had a sanction imposed	323,083	1.1	0.10	0.00	1.00
Alcohol was a factor	3,592	12.6	0.33	0.00	1.00
Duration in months	2,426	9.798	8.67	1.00	64.00
Sanctions given by supervisor	1,136	3.165	4.34	1.00	50.00

IV. METHODOLOGY AND RESULTS

A. UNDERSTANDING THE SYSTEM

This section explores different aspects of the sanctions system using descriptive analysis. Firstly, it looks at the attributes of those who are most likely to receive a sanction in the population. Secondly, it investigates the decision-making behaviors of supervisors who give sanctions, with the goal of analyzing any noise within the system.

1. Sanction Distributions

The data includes 3,592 sanctions from 2011 to 2022. Table 4 presents a breakdown of the various types of sanctions. In this context, the term "sanction type" refers to the different types of non-DFDA punishments imposed for poor performance. These can range from severe penalties like reduction in rank and suspension from duty to more lenient forms of punishment like counseling and administrative warnings.

"Formal Warning—Specified period" sanctions were imposed 58% of the time, making it the most used type of sanction. This suggests that commanders tend to give recipients the opportunity to change their behavior before imposing more severe penalties. Formal Counseling was the second most common type of sanction, accounting for 23% of the total. This could indicate that some individuals are given a "first strike" opportunity before facing stronger penalties. Suspension from duty and censures were the third most frequently used types of sanctions, accounting for around 3% each. These are more permanent and serious types of sanctions that have a greater impact on someone's career. A suspension from duty is often a precursor to involuntary separation.

Table 4. Sanction Types.

	Percent	Count
Formal Warning—Specified period	58.05	2085
Formal Counselling	22.10	794
Counselling	3.70	133
Censure	3.48	125
Suspension from duty	3.37	121
Other	2.45	88
No Action Taken	2.20	79
Reduction in Rank	1.92	69
Administrative Warning	0.92	33
Recording civil offence outcome	0.86	31
Formal Warning—Service length	0.47	17
Removal from appointment/local	0.47	17
Total	100.00	3592

Note: "Other" includes all sanction types that have less than 15 recorded occurrences. This includes Administrative Auth Censure, Administrative Posting, Bail, Civil Conviction, Commanding Officer's Logging, Commanding Officers Warning, Condition undertaking of good behavior, Delay of Promotion, Driving Licence suspended/revoked, Fine, Loss of Licence, Pay Suspension/Variation, Suspended sentence, Undertaking of good behavior and Unsuitability Report.

Table 5 shows reasons for receiving a sanction. Unsatisfactory Conduct is the most common violation at 45%, followed by physical fitness failures at 28%. Alcohol and Civil Convictions are the third and fourth highest proportion of sanctions at 7% and 4%, respectively.

Table 5. Causes for Incurring a Sanction.

	Percent	Count
Unsatisfactory Conduct	44.75	1604
Physical Fitness Failure	28.10	1007
Civil Conviction	8.20	294
Alcohol	7.20	258
Non-Medical Use Drugs	4.35	156
Civil Offence	3.66	131
Personal Qualities	3.32	119
Other	0.42	15
Total	100.00	3584

Note: "Other" includes all sanction types that have less than 15 recorded occurrences. This includes Indebtedness, Police reports and Security violations. Eight sanction type observations are missing a sanction reason.

Figure 1 illustrates that there has been an increase in the number of sanctions imposed between 2011 and 2021, with a noticeable drop in 2021. This decrease could be attributed to the impact of COVID-19 lockdowns and responses (Hartigan, 2022). The lockdowns could have led to less focus on performance management of the workforce, particularly in states such as New South Wales and Victoria where many people were working from home. In this environment, there may have been less opportunity and desire to conduct performance management due to the circumstances, with the priority being on supporting COVID-19 taskings during that year. Navigating the complexities of administrative sanctions in a work-from-home environment may have been considered a secondary concern.

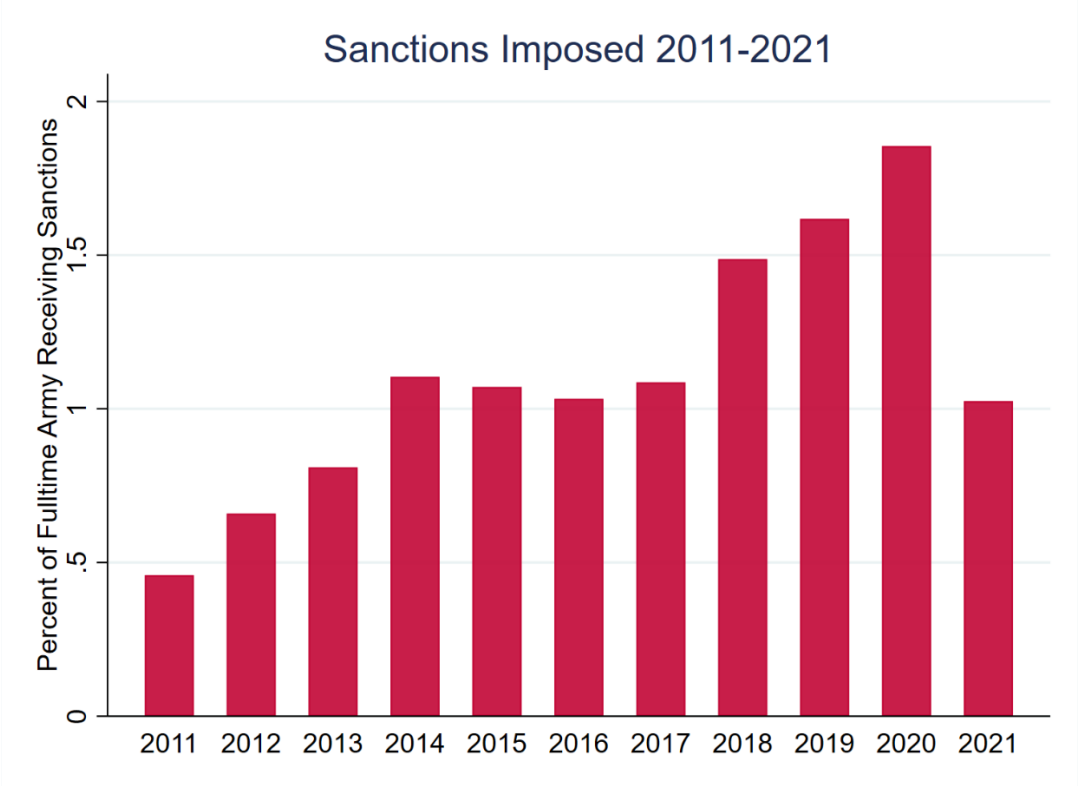

Figure 1. Percentage of Fulltime Army Receiving Sanctions (2011–2021)

The significant jump from 2013 to 2014 coincides with the withdrawal of Australian troops from Tarin Kot, Afghanistan. This rise in sanctions could be attributed to the Army refocusing on the "Raise, Train, Sustain" cycle of domestic operations and placing more emphasis on training and performance management as opposed to operational preparedness. The rise in sanctions from 2018 to 2020 is significant and does not have any immediate correlating events. Anecdotal evidence suggests that this could have been due to a change in focus by the Army to improve discipline in the force, with the sanctions system being used as a tool to support this focus.

Figure 2 presents a histogram of the lengths of sanctions imposed. While commanders have complete discretion in determining the duration of the sanctions, the lengths tend to cluster around similar timeframes. After the one-to-three-month period, there are notable increases in the frequency of sanctions imposed for six to 12 and 24 months. These clusters of timeframes may be related to reporting periods, as commanders

may be influenced by the standard reporting period used by the Army (with a six-month review). This could result in an anchor bias, (Bystranowski et al., 2021; Lieder et al., 2018) as the reporting period may be used as a reference point when deciding on the appropriate sanction length, which could lead to an unfair appraisal of each incident, as a commander may decide between a 100% increase in the length of a sanction.

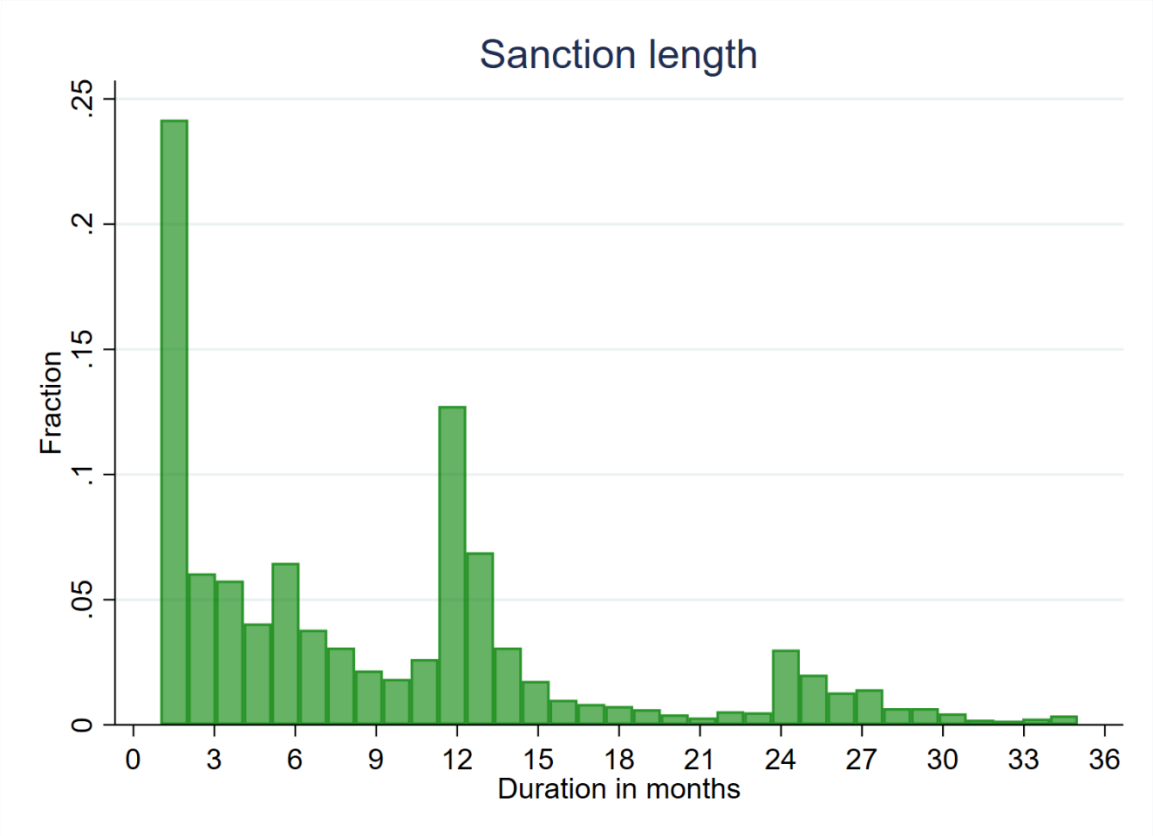

Figure 2. Fraction of Sanctions by Duration

It is important to examine which sections of the population are more likely to receive sanctions. Table 6 shows that males have a 1.16% chance of receiving a sanction in any given year, while females have only a 0.74% chance. Hence, males are 57% more likely than females to receive a sanction. This is an expected outcome; particularly as young men tend to take more risks than women. Individuals in a recognized relationship are significantly less likely to receive a sanction. This could be due to the desire to

support their family financially, as well as older individuals in recognized relationships tending to exhibit less risk-taking behavior.

Table 6. Likelihood of Sanction, Based on Attributes.

	Mean (%)	Total
Female	0.74	39,841
Male	1.16	283,242
Recognized Relationship	0.07	112,642
Single	1.75	210,441
Total	1.11	323,083

Note: Intersex not included due to number of observations was less than ten.

2. Supervisor Decision Variability

By examining both the quartile range of sanction durations imposed by supervisors and the distribution of those durations, it is possible to assess whether there are any inconsistencies in the system. Specifically, it is possible to investigate whether supervisors award vastly different durations for the same violation reason. As previously discussed, supervisors often use timeframes that align with the 12-month reporting period. However, even if all supervisors are anchored by this timeframe, it is still possible to assess for inconsistencies by analyzing the 25th and 75th percentile ranges as shown in Table 7. The middle 50% represents the median of the average durations imposed by supervisors.

To identify strong noise, as discussed by Kahneman et al. (2021), a wide variation of sanction duration across reason types by supervisor would need to be detected first. To achieve this, the dataset was collapsed so that each observation was a supervisor and sanction reason. For each unique combination of supervisor and sanction reason, the

average duration given was calculated. This allows for looking at the supervisor-level averages across reasons.

Table 7 illustrates the variation in sanction lengths among supervisors for different types of violations. The top row shows that, for alcohol-related violations, 114 supervisors issued sanctions with an average duration of 11 months. A quarter of the sample received sanctions of less than seven months, while another quarter received sanctions of more than 13 months for the same violation. The middle 50% of sanctions for alcohol-related violations had durations between seven and 13 months, indicating that some supervisors were more lenient while others were stricter. The second to last row shows that unsatisfactory conduct had a similar mean duration but a greater range of variation of nine months between the 25th and 75th percentile, indicating a higher degree of variation in the length of sanctions among supervisors for this type of violation. In contrast, physical fitness failures had the narrowest variation of four months, likely due to the presence of policy-mandated guidelines for this type of violation.

Is this an unduly wide range? It is unclear whether the wide range of sanction durations for alcohol-related violations and unsatisfactory conduct is justified. Without additional information about the specific circumstances of each case, it is difficult to determine whether supervisors are giving longer sanctions for more severe violations or if there is a lack of consistency in the decision-making process. For example, a supervisor may give longer sanctions for cases of long-term alcohol abuse, but he or she may give shorter sanctions for a one-off violation. Similarly, there may be a wide range of circumstances that could lead to a sanction for unsatisfactory conduct, which could justify varying durations. However, if alcohol-related misbehavior tends to be similar across cases, this variance could indicate a lack of consistency or noise in the system.

Table 7. Average Supervisor-Level Sanction Length (in Months) by Reason.

	Mean (%)	P25	P75	Total
Alcohol	11.11	7.00	13.00	114
Civil Conviction	12.34	6.00	15.00	179
Civil Offence	13.20	7.50	16.00	70
Non-Medical Use Drugs	9.57	2.75	15.00	72
Personal Qualities	12.68	6.00	18.00	62
Physical Fitness Failure	5.74	2.00	6.00	331
Police Report	15.00	6.00	29.00	5
Security Violation	7.00	1.00	13.00	2
Unsatisfactory Conduct	11.14	5.00	14.00	605
Total	10.14	3.73	13.00	1,440

Figure 3 shows the distribution of sanction durations for the four most prevalent types of sanctions. The panel for Alcohol sanctions, for instance, reveals that 28% of such sanctions were for a duration of 12 months, with the second most common being 13 months at 15%. The next most common duration was six months, accounting for 8.8% of such sanctions. In contrast, Physical Fitness failures have policy-mandated guidelines with defined sanction periods that must be applied. Unsatisfactory Conduct, on the other hand, displays a lot of variation in the six-to-12-month range, with a spike at the six-month mark. This raises the question of whether the varied possibilities of violations

necessitate more varied sanction durations or if there is more noise due to a lack of policy-dictated guidelines for these incidents. This analysis could aid in determining whether there is a need for guidelines for different types of violations.

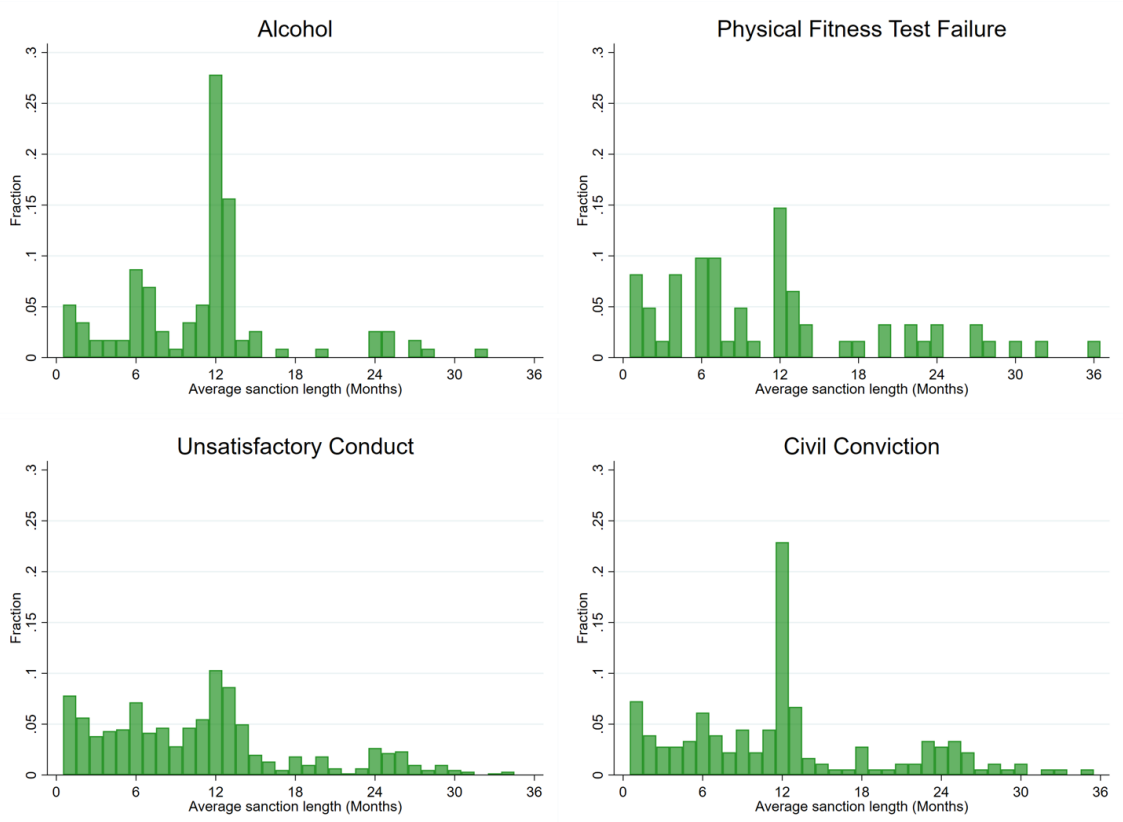

Figure 3. Sanction Duration Distribution Panel

B. SANCTION CAUSAL RELATIONSHIPS

This section investigates the correlation between sanctions and behavior, as well as any potential impact of location on the likelihood of receiving a sanction. This investigation utilizes Kaplan-Meier (KM) analysis to examine survival rates up to 20 years of service. Additionally, linear regression analysis is used to determine whether sanctions have any effect on separation from the ADF, and to investigate if location plays a role in the likelihood of receiving a sanction.

1. Separation Behaviors—Kaplan-Meier Survival Curve Analysis

To use the KM survival analysis, the dataset was collapsed leaving only the last observation for everyone. Then using "any separation" indicator as the failure criteria, the survival curves were plotted against years of service for those who had and had not received a sanction in their first two years of service. Figure 4 shows the survival for the entire population, and the survival function for key point estimates is summarized in Table 8. These outputs suggest that those who did not receive a sanction have a consistently higher survival rate than those who did. After three years, only 84% of those who received a sanction remained in the service compared to 93% of those who did not, representing a 9.7% lower survival rate. This could start off as a closer difference due to the Initial Minimum Period of Service (IMPS) obligation for other ranks. IMPS is the contractual obligation for other ranks to remain in Army before they can voluntarily separate. This obligation would incentivize individuals not to separate earlier even if they had received a sanction.

This trend widens through the five and ten year points in service. At five years there is a 25.5% gap between the survival rate of non-sanctioned and sanctioned members, and this increases to 53% for ten years of service. Although this includes both voluntary and involuntary separation for years of service, this represents a sanction being a significant disadvantage for a long-term career. It is also noted that the survival estimates stop at ten years for those with a sanction received in the first two years of service. This shows that all members who met this criterion did not have a career longer than ten years. This suggests that having a sanction early in service could be a barrier to long-term service. In survival analysis, KM analysis estimates the probability of survival based on the number of individuals at risk of separating during each time interval. If individuals are censored from the data (e.g., the research period ends before they leave service), they are no longer included in the calculation of the survival estimate once their maximum years of service has been reached. It is important to note that censoring can affect the accuracy of KM analysis estimates.

This gap becomes more pronounced as years of service increase. At five years, there is a 25.5% gap between the survival rate of non-sanctioned and sanctioned

members, and this gap grows to 53% for ten years of service. For years of service, this difference applies to both voluntary and involuntary separations and indicates that a sanction is a significant disadvantage for a long-term career. It is also worth noting that the survival estimates stop at ten years for those who received a sanction in their first two years of service, indicating that all members who met this criterion did not have a career lasting longer than ten years. This suggests that receiving a sanction early in one's service could be a barrier to long-term service.

In survival analysis, KM analysis estimates the probability of survival based on the number of individuals at risk of separating during each time interval. If individuals are censored from the data (e.g., the research period ends before they leave service), they are no longer included in the calculation of the survival estimate once their maximum years of service has been reached. It is important to note that censoring can affect the accuracy of KM analysis estimates.

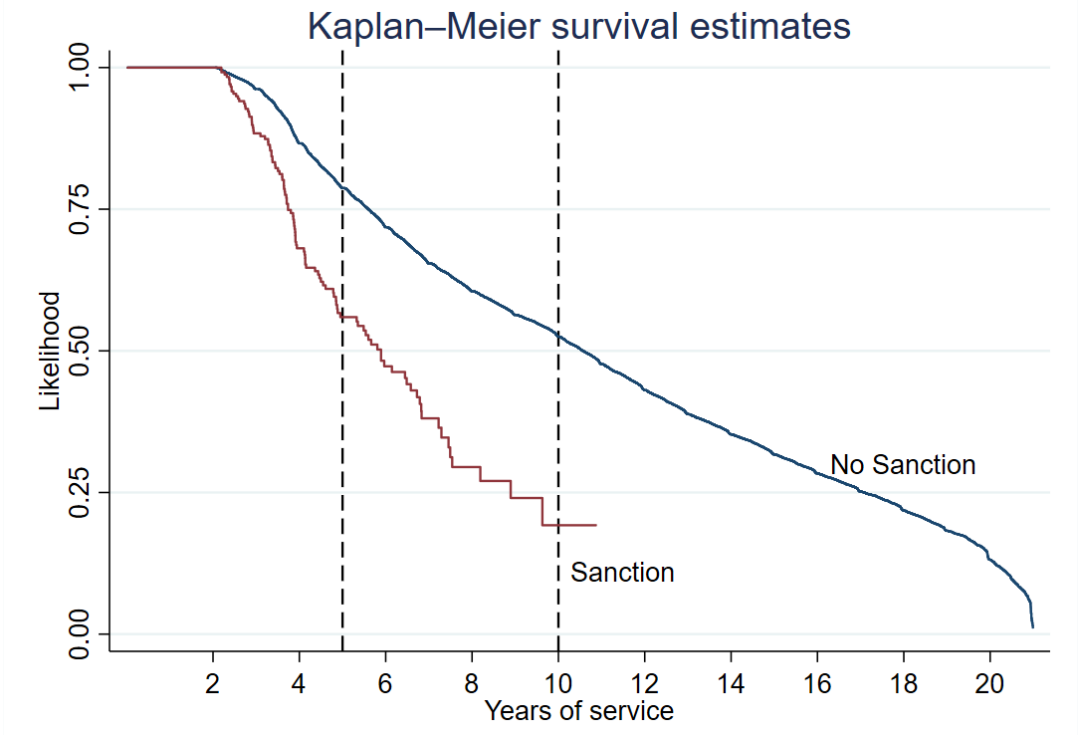

Figure 4. Kaplan-Meier Survival Curve: Sanction Received in First Two Years of Service

Table 8. Summary of Point Estimates for Figure 4: Kaplan-Meier Survival Curve: Sanction Received in First Two Years of Service

Years of service	Survival: No Sanction (%)	Survival: Sanction (%)
3	92.9 (0.001)	83.9 (0.024)
5	76.2 (0.002)	56.8 (0.036)
10	51.3 (0.003)	23.9 (0.069)

Note: Standard errors in parentheses

2. Separation Behaviors—Linear Regression Analysis

Linear regression analysis was used to investigate the relationship between sanctions and separation from the ADF. Linear probability models (LPM) were applied to examine how the likelihood of separation is affected by the members' receipt of sanctions. The dataset was consolidated to include only one observation per individual, and controls were based on the characteristics of the individual. As with the KM analysis, individuals who received a sanction within the first two years of their career were used as a comparison group. Only those who had served more than two years were included in the analysis to eliminate any bias due to members still in training or those who had already separated. Year fixed effects were used to control for any time trends. This approach is suitable for binary outcomes, and the coefficients are easily interpretable as percentage point changes.

Three models were constructed to examine the relationship between separation and sanction reasons, with increasingly strict controls. There was no distinction between separation types as the data does not have enough detail to indicate how voluntary separations relate to sanctions. Various reasons for a voluntary separation may be directly or indirectly influenced by a sanction. Additionally, if a member has a sanction and his or her service is terminated, it may indicate that the sanction did not change the member's behavior as intended. The model can be defined as

$$P(any\_sep_{it}) = \beta_0 + \beta_1 sanction\_early_{it} + \delta_t + u_{it},$$

where P(any_sep_{it}) is the likelihood of separation, $sanction\_early_{it}$ is binary for whether a member received any sanction within the first two years of his or her career, δ_t

represents the hire year fixed effect. Subsequent models add more controls to further isolate the effect of an early career sanction: Model 2 includes controls for Other Ranks and Male, which are both binary variables. This looks at whether these factors change the correlation between early sanction and separation. For example, Male could be a confound if men are both more likely to separate and more likely to be sanctioned, so this addresses that source of bias. Model 3 brings in continuous variable controls for age and age squared and a binary variable for whether the member is in a recognized relationship. Table 9 shows the results of the regression.

Across all models, the coefficient for "Sanction Imposed Within 2 Years of Hire" is positive and statistically significant at a 95% confidence level or higher. In Model 1, which is the simplest model with no controls besides the year fixed effect, the coefficient indicates that those with an early sanction have a 9.7 percentage point increased likelihood of separation compared to those without. This represents a 17.3% increase in the likelihood of separation. In Model 2, the positive correlation between early sanction and separation decreases and shows that Other Ranks are more likely to separate. Model 3 shows that those with a sanction at two years have a 5.8 percentage point increase in the likelihood of separation compared to those without, or a 10.4% increased likelihood of separation.

These results suggest a positive association between sanctions and separation. However, the decrease of the coefficient across columns means there is omitted variable bias in the column (1) result. Age is a classic omitted variable, as the older a member is, the less likely he or she is to engage in risk-taking behaviors. On the other hand, as they age, members are more likely to separate as they get closer to life milestones such as retirement age. Other Ranks is a significant omitted variable as enlisted have shorter careers than officers (Australian Government, 2019), typically one to five years, so their reason for separating early may be unrelated.

Table 9. Likelihood of Any Separation: Sanction within Two Years of Hire.

	(1)	(2)	(3)
Sanction Imposed Within 2 Years of Hire	0.097** (0.030)	0.077** (0.030)	0.058* (0.029)
Other Ranks		0.199** (0.006)	0.182** (0.005)
Male		0.010+ (0.006)	0.019** (0.006)
Recognized Relationship at Hire			-0.171** (0.004)
Age			-0.024** (0.002)
Age Squared			0.000** (0.000)
Outcome mean	0.56	0.56	0.56
R-squared	0.127	0.150	0.180
Observations	49,342	49,342	49,342

Note: Standard errors in parentheses $^{+}$ $p < 0.25$, * $p < 0.05$, ** $p < 0.01$

3. Place-Based Effect on Sanction Likelihood

Another factor that could contribute to the likelihood of a sanction is where a soldier or officer is posted. To look at this effect, this study employed a location effect linear regression. This model can be defined as

$$P(sanction_{its}) = \beta_{\mathrm{n}} X_{it} + \theta_i + \Gamma_t + \mu_s + u_{its},$$

where $P(sanction_{its})$ is the probability that an individual i in year t located in state s will receive a sanction. θ_i gives a fixed effect for the individual, Γ_t gives a fixed effect for the reporting year, μ_s gives a fixed effect for the state the member is in, and u_{its} is the error term. Controls are denoted by X_{it}, which includes rank, age, age squared, recognized relationship, married but separated for service reasons, and the Corps of the

individual. Corps is being used as a proxy for culture where certain job family types could have a higher propensity to risk-taking behavior (such as combat Corps). The raw mean of the likelihood of getting a sanction when moving to each state is shown in Table 10.

Table 10. Likelihood of Sanction Moving to State, raw means.

	Mean	**Total**
ACT	0.41	25,522
NSW	0.99	73,023
NT	1.59	37,689
NTHQLD	1.57	60,080
Overseas	0.00	2,437
SA	1.41	16,985
SEQLD	0.96	74,651
VIC/TAS	0.91	22,460
WA	0.68	9,518
Total	1.11	322,365

Using the average sanction likelihood of 1.1% these changes are generally expected trends, as discussed in Finklestein et al. (2021). For a comparison, the ABS crime data (ABS, 2022) could be used to create general features for each location. As expected, the Northern Territory (NT) and Northern Queensland (NTHQLD) have higher likelihoods of sanctions being awarded if someone moved there. This could be attributable to the lack of amenities and the higher crime rates in these areas. South Australia (SA) is a surprising outlier, although it has significant Army assets based in the area, it would be expected to have better features compared to NT and NTHQLD—particularly with more amenities and better access to the east coast. This could be a result of the 1st Armoured Regiment moving from the NT to SA in 2017 and increasing the exposure of members to features of SA that increase the likelihood of sanction. As SA is a road link to NT, there could be some cross pollination of undesirable features (such as crime) that could impact those in SA.

Using the model, Figure 5 shows the effect of posting from Southeast Queensland (SEQLD) to other areas of Australia in percentage point terms. Moving to the Australian Capital Territory (ACT) has a 0.12 percentage point decrease, or a 10.9% reduced likelihood of receiving a sanction. Victoria or Tasmania (VIC/TAS) or overseas also have a negative correlation with receiving a sanction. Moving to SA has a 0.29 percentage point increase, or a 26% increase in likelihood of receiving a sanction. NTHQLD, NSW, and NT also have a positive correlation.

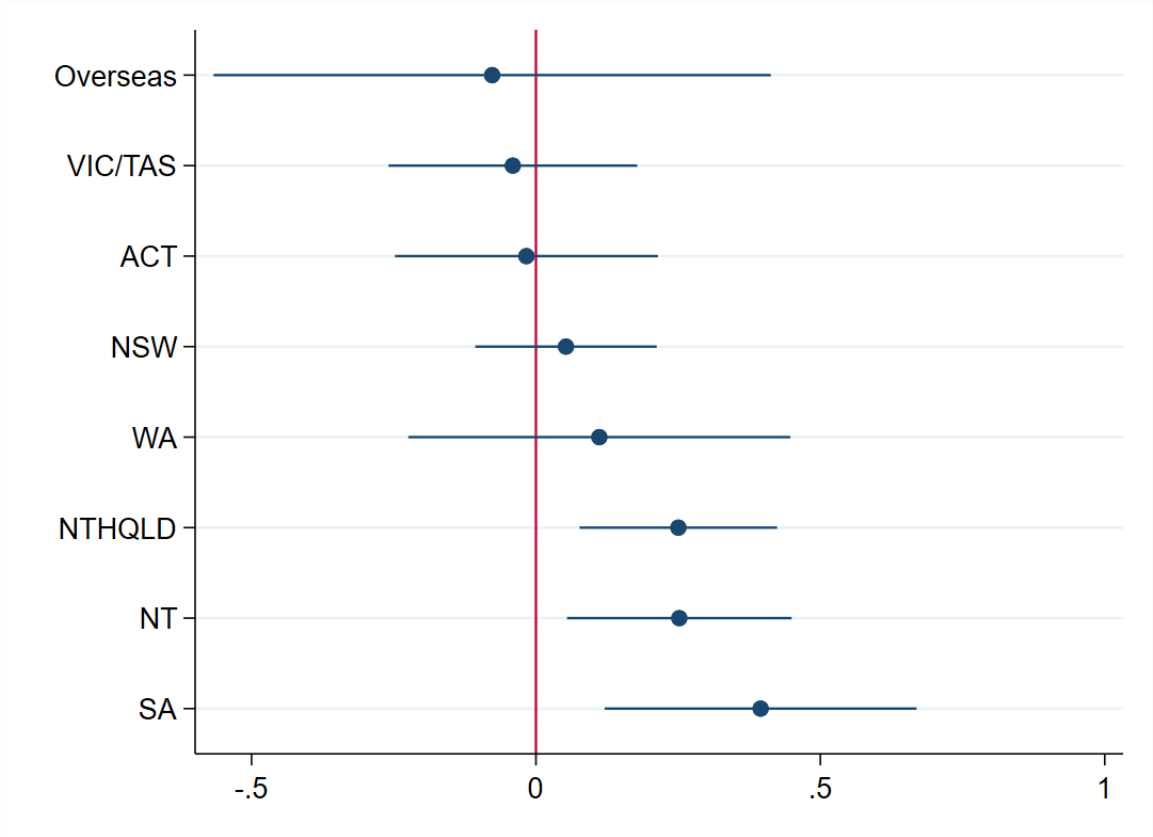

Figure 5. Likelihood of Sanction if Posted from SEQLD (in %)

V. CONCLUSION

A. SUMMARY OF FINDINGS

In the initial analysis, we examined the features of the system and found that sanctions had an upward trend over a ten-year period, with a sudden drop during the COVID-19 period. Above the three-month mark, supervisors tend to give six- and 12-month sanctions. There is a wide variation in the duration of sanctions, with an average of eight months for a ten-month sanction. The spread of sanction duration for the most frequent violations does not indicate a significant inconsistency in decision making. This could be necessary variation required for unique violations.

The second section analyzed whether there were any changes in behavior because of a possible causal relationship. The KM curve indicated a significant decrease in survival rate for those who received a sanction early in their careers, with a downward trend in survival rate at five and ten years of service. This demonstrates that a sanction early in service can lead to a shortened career. This is supported by the LPM, which shows that having an early sanction increases the likelihood of separation by 5.8%. This suggests that sanctions do not effectively promote the desired change in behavior. Additionally, there is some evidence that location plays a role in the likelihood of receiving a sanction, with SA being a location that unexpectedly increases an individual's chances of receiving a sanction by 26%.

B. IMPLICATIONS AND RECOMMENDATIONS

Receiving a sanction appears to have a significant impact on a member's career, particularly regarding the long-term effects of sanctions on those who want a long career. Consequently, the system needs improvement to help retain more personnel. This study has only begun to examine the features of the sanction system. Further research into the effects of different types and severity of violations would provide a more nuanced understanding of how sanctions impact individual careers, and which sanctions are more effective in retaining personnel. Additionally, studying the factors that decision makers consider when awarding sanctions could help to identify any sources of bias in the

system. This information could be used to improve performance metrics for those who are sanctioned and inform decisions about who should be sanctioned.

Decision makers within the system would benefit from more realistic training that could reduce variability in sanctions. This could be achieved by creating artificial scenarios (or sanitized real cases) that develop internal guidelines for self-regulation (Johnson et al., 2014) and prevent ego depletion, which could improve the perceived fairness of the system. Alternatively, expanded policy guidelines or decision support tools could be used to ensure consistency in decision making. Nonetheless, it is important to balance this with the commanders' discretion and ability to make fair decisions in unique situations. There may not actually be an issue with variability, as there could be more situations that require a wide range of duration for sanctions.

Moreover, further research should be conducted to examine the impact of location on the likelihood of members receiving sanctions, which could inform policy and unit activities to reduce this likelihood. This could be done in conjunction with evaluating the effectiveness of remote locality benefits.

LIST OF REFERENCES

Australian Bureau of Statistics (2022, July 28). *Recorded crime—Victims, 2021* . https://www.abs.gov.au/statistics/people/crime-and-justice/recorded-crime-victims/latest-release

Australian Defence Force. (2016). *Military personnel manual,* part 9, chapter 2. ADF Defence Protected Network.

Australian Institute of Health and Welfare. (2019). Serving and ex-serving Australian Defence Force members who have served since 1985: Population characteristics 2019, length of service. Australian Institute of Health and Welfare. https://www.aihw.gov.au/reports/veterans/adf-members-population-characteristics-2019/contents/ex-serving-adf-members/length-of-service

Bystranowski, P., Janik, B., Próchnicki, M., & Skórska, P. (2021). Anchoring effect in legal decision-making: A meta-analysis. *Law and Human Behavior*, *45*(1), 1–23. https://doi.org/10.1037/lhb0000438

Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, *86*(3), 386–400. https://doi.org/10.1037/0021-9010.86.3.386

Department of Defence. (2022). *2021–22 Defence annual report*. Government of Australia, Department of Defence. https://www.defence.gov.au/sites/default/files/2022-11/2021-22-Defence-Annual-Report.pdf

Finkelstein, A., Gentzkow, M., & Williams, H. (2021). Place-based drivers of mortality: Evidence from migration. *American Economic Review*, *111*(8), 2697–2735. https://doi.org/10.1257/aer.20190825

Government of Australia. Defence Regulation 2016 (Commonwealth) Part 1 Section 3, F2016L01568 (2016). Federal Register of Legislation. https://www.legislation.gov.au/Details/F2016L01568/

Hartigan, P. (2022, October 7). Operation COVID-19 Assist officially ends. *CONTACT Magazine*. https://www.contactairlandandsea.com/2022/10/07/operation-covid-19-assist-officially-ends/

Johnson, R. E., Lanaj, K., & Barnes, C. M. (2014). The good and bad of being fair: Effects of procedural and interpersonal justice behaviors on regulatory resources. *Journal of Applied Psychology*, *99*(4), 635–650. https://doi.org/10.1037/a0035647

Kahneman, D., Sibony, O., & Sunstein, C. R. (2021). *Noise: A flaw in human judgment*. Little, Brown Spark.

Lieder, F., Griffiths, T. L., M. Huys, Q. J., & Goodman, N. D. (2018). The anchoring bias reflects rational use of cognitive resources. *Psychonomic Bulletin & Review*, *25*(1), 322–349. https://doi.org/10.3758/s13423-017-1286-8

Sengupta, K. (1995). Cognitive feedback in environments characterized by irrelevant information. *Omega*, *23*(2), 125–143. https://doi.org/10.1016/0305-0483(94)00061-E

Thibaut, J. W., & Walker, L. (1975). *Procedural justice: A psychological analysis*. L. Erlbaum Associates.

Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science 185*, *4157*, 1124–1131.

Acquisition Research Program
Naval Postgraduate School
555 Dyer Road, Ingersoll Hall
Monterey, CA 93943

www.acquisitionresearch.net