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Impact of Mental Health-Related Unplanned Losses Onboard Surface Ships

June 2022

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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

The Surface Navy is experiencing increased unplanned losses (UPL) each year. In this interpretive study, we received and analyzed data from Naval Surface Forces Pacific Command (CNSP), looking for trends and patterns. Our data covered fiscal years 2019, 2020, 2021, and up to February 2022. The data showed that over the last two years, mental health has overtaken misconduct and drug abuse for the leading cause of UPLs across the Fleet. Upon this discovery, we questioned why mental health UPLs were rising and how we can reduce them. Currently, the term "unplanned loss" is undefined in any instruction. A previous study defined a UPL as "a loss to a command where a Sailor is issued a DD214." However, we believe it should be defined as "any loss of a Sailor from a command that is expected to last greater than 3 weeks." By defining the term this way, it will allow commands to implement a standard operating procedure and corrective courses of actions to find a replacement Sailor and to account for temporary losses. We believe filling UPLs as quickly as possible will significantly slow down the domino effect of multiple UPLs onboard surface ships. Our research uncovered more question than answers, but we believe our recommendations and future research will greatly benefit the Fleet in the future.

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LIST OF ACRONYMS AND ABBREVIATIONS

AVAILS	Availability
BBD	Billet Based Distribution
CMS-ID	Career Management System Interactive Detailing
CNSL	Command, Naval Surface Forces Atlantic
CNSP	Command, Naval Surface Forces Pacific
COG	Convenience of the Government
COMPTUEX	Composite Training Unit Exercise
DRC	Deployment Readiness Condition
DRRS-N	Defense Readiness Reporting System-Navy
EAOS	End of Active Obligated Service
EMIR	Enlisted Manning Inquiry Report
GMT	General Military Training
HUMS	Humanitarian Reasons
HYT	High Year of Tenure
ISIC	Immediate Superior in Command
LIMDU	Limited Duty
MCA	Manning Control Authority
NEC	Navy Enlisted Classification
OFRP	Optimized Fleet Response Plan
OTC	Officer in Tactical Command
P-UPL	Potential Unplanned Losses
PRD	Planned Rotation Date
RCN	Rating Control Number
TYCOM	Type Commander
UPL	Unplanned Loss

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I. INTRODUCTION

The Surface Warfare Community is the backbone of the United States Navy. When people think of the Navy, they think big ships and Sailors. Since October 13, 1775, the United States Navy has sailed the oceans, protecting freedom and democracy around the world. Over the last 246 years technology has greatly changed, ships and weapon systems have become much bigger, faster, deadlier, and efficient. However, one thing has remained constant: The importance of our Sailors. Without Sailors, we are unable to operate as a Navy, and we are unable to protect ourselves, our allies, and the world's waterways.

In the Constitution it states that one of the many roles of Congress is to "provide and maintain a Navy." To accomplish this role, Congress has shown great interest in the status of military retention rates with the goal of sustaining a fully manned and proficient Military workforce (Kapp, 2021). We believe that, in addition to showing interest in retention, Congress should also understand the effects that unplanned losses have on maintaining a Navy. We define unplanned losses as instances where a Sailor is removed from a command prior to their end of active obligated service (EAOS) or projected rotation date (PRD), i.e., the Sailor is administratively separated from the Navy for misconduct, failure to conform to a family care plan, issues related to their medical status or disability, or worst case, suicide. Each year, the United States Navy faces difficulty as it attempts to combat the manning shortfalls brought on by these unplanned losses. Theses unplanned losses are separate from Sailors who remain at a command but are taken out of operational status.

Enlisted Sailors are those who maintain weapons, gear, and equipment onboard a ship. When someone enlists to become a United States Navy Sailor, they are classified by five general apprenticeship designators to include Airman, Fireman, Seaman, Dentalman and Hospitalman (Bajza, 2021). On amphibious ships such as LHAs, LHDs, and LPDs, all five types of apprentices will be present however, on CGs and DDGs (CRUDES), Seaman, Firemen, Hospitalman are organic rates to the command. For CRUDES, the Airmen are a part of an aircrew that is attached to the ships command prior to deployments.

An undesignated Seaman, commonly referred to as a "topsider," does not have a "rate," works for Deck Department, and learns how the ship operates from the main decks and above. An undesignated Fireman is a Sailor who currently is not trained in an engineering specialty, but is designated as a future engineer, and will work in the "plant," also known as the engine room, machinery spaces, and auxiliary spaces. These two categories of Sailors are working towards specializing in a certain job, also known as "striking a rate." These Junior Enlisted Sailors classify as a "quad zero" mean they have a Navy Enlisted Classification (NEC's), "0000." The Navy Guide to Retention states that Sailors are the backbone of the Navy, as follows:

> The Navy Enlisted Classification (NEC) system, of which the NEC coding system is a part, supplements the enlisted rating structure in identifying personnel on active or inactive duty and billets in manpower authorizations. NEC codes identify a non-rating wide skill, knowledge, aptitude, or qualification that must be documented to identify both people and billets for management purposes…The NEC coding system facilitates management control over enlisted skills by identifying billets and personnel and enhancing efficient use of personnel in distribution and detailing. In cases where NEC codes reflect special training, inventories of coded billets and coded personnel are also the basis for planning and controlling input of personnel into formal courses that earn NEC codes. Consequently, the continuing enlisted strength of the Navy, particularly petty officer allocations, and funds authorized for rating and specialty training depends, to an increasing extent, upon the accuracy, thoroughness, and timeliness of NEC coding. Personnel required to support ratings and special programs must be identified by the correct combinations of rates and/or NEC codes. (United States Navy, 2008)

Enlisted Sailors get called by their "rate" (specialized job, such as Electronic technician, Engineman, Quartermaster, etc..) and rank; for example, an Electronics Technician Second Class Petty Officer" is called "ET2." Once Enlisted Sailors have their rate they can acquire / train for more specialized and advanced Navy Enlisted Classification codes. As an Enlisted Sailor gets more senior, they can have multiple (up to four NECs).

A major issue surface ships face is when one of these senior enlisted Sailors who holds multiple NECs is unexpectedly lost and removed from the ship/command. This Sailor may even hold a "critical" NEC, which is one of the few required skills onboard that is needed just to get underway. The minimum standards for a seagoing command to safely

get or remain underway, are referred to as Redlines. Redlines are important because they are the maximum personnel or equipment risk the unit commander may take without the Numbered Fleet Commanders authorization (Naval Surface Force U.S. Pacific/Atlantic [CNSP/CNSL], 2018). When multiple Sailors with critical NECs that are Redlines are unable to ger underway, the issue now becomes that a multi-billion-dollar warship is now stuck pier-side until their replacements are brought onboard.

During such an extreme measure, where a critical NEC Sailor is lost, the Command and the detailers at the Naval Personnel Command in Millington, TN have one goal, which is to replace that Sailor with another "fit" Sailor. Fit is a term used throughout the Navy to describe replacement Sailors. The objective is to always try and get a "fit" Sailor for the job; however, there are many times where the command will get a "fill." Fill is the term used when the replacement is not qualified by NEC for the job. They are there to "fill" the hole of the unplanned loss and now needs to be "homegrown" or trained inhouse by the Command for this Sailor to get the proper training needed to replace the loss.

Fit versus fill is a constant battle that ships and commands have. Commanding Officers always look out for the best interest of their ship/command. Every Commanding Officer wants a "fit" Sailor replacement. However, many times it is not possible, and they receive a "fill" with little to no experience. The problem Commands have with receiving a "fill" during an unplanned loss is now they must either spend their time, money, and resources to train the Sailor, or accept an unqualified replacement. This places more stress and work on other Sailors in the division who are picking up the workload from the lost Sailor.

Our research will primarily examine the causes of unplanned losses and the effects they have on the United States Navy Surface fleet readiness. A ship's readiness is defined as "the ability of military forces to fight and meet the demands of assigned missions" (Herrera, 2020). Secondarily, this research will extrapolate the data received from the Commander, Naval Surface Forces (SURFOR) to identify trends in unplanned losses (UPL) timing and examine outside factors to develop recommendations on how to decrease the number of unplanned losses.

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II. LITERATURE REVIEW

A. PREVIOUS LITERATURE

As previously stated, this document is an extension of a previous thesis conducted at the Naval Postgraduate School, and uses the data shared. The previous study, titled Unplanned Losses in the Surface Navy, began with the purpose of investigating the causes of UPL, specifically wanting to identify the population most at risk for UPL, in order to improve manning in the Surface Fleet. However, the data that was provided for this thesis only allowed for End-Strength UPLs, not accounting for Sailors who were on LIMDU, CPO redistribution or, Operational Deferment orders (Mann et al., 2022). The conclusion that came from the previous study was that increased effort regarding resolution of UPL, should be focused on the more Junior enlisted ranks, E-1 to E-5, considering that they accounted for 96% of the total unplanned losses from FY19 to FY21 (Mann et al., 2022). The authors also recommended that temporary UPLs should be further analyzed regarding the impact they have on commands, as these were not included in the data set.

In addition, the authors recognized that additional studies should be conducted on the data collection methods pertaining to unplanned losses. If the data is relatively easy to download, this would facilitate a more frequent update to allow for others to conduct further analysis with data that is current. Existing data bases such BBD, COGNOS, and Tableau could be altered to include NEC data that would aid in further analyzing UPLs.

Finally, the previous study recognized the need for additional study to be focused on UPLs that fall under "Other Medical or Disability." It is stated that between "E-1 and E-5 the UPL codes designated as 'Other Medical or Disability' and 'misconduct' were high and showed a strong correlation between CNSL and CNSP populations, different fiscal years, and genders" (Mann et al., 2022). These strong correlations are what prompted us to want to answer the question of what the cause of this may be.

B. FIT VS. FILL

The United States Navy currently uses two ways to define the fleet manning levels; these measures are Fill and Fit. The term **Fill** denotates that a specific fleet job is filled by a

Sailor who meets two criteria: the right rating and the right paygrade (Faram, 2018) and does not consider skill or seniority. In contrast, **Fit** denotes that a fleet job is filled by a Sailor who has additional skillsets best suited for a particular job (Faram, 2018). In 2005, the United States Navy expanded on these measures and introduced two new metrics: Rating Control Number (RCN) Fill and Fit , Navy Enlisted Classification (NEC) Fill and Fit, and Officer Fill and Fit (Belcher et al., 2014). With RCN Fill, the fill is calculated for each community and for the unit, while also counting the excess personnel.

C. BILLET BASED DISTRIBUTION

Billet Based Distribution (BBD) is a program that resides in the Career Management System. Interactive Detailing (CMS-ID) system. BBD was designed to improve the efficacy of enlisted manning , as well as command management of their Sailors, while signaling to Naval Personnel Command (NPC) what the appropriate demand currently is (Mitchell, 2015). One benefit of the BBD system is that the demand signal put out by the program will directly affect the Fit/Fill as well as Defense Readiness Reporting System-Navy (DRRS-N).

D. ADMINISTRATIVE SEPARATIONS

In the United States Navy, there are two broad types of separations: voluntary and involuntary (USN, 2021). Administrative separations (ADSEPS) are considered voluntary separations and include Changes in Service Obligation, Expiration of Active Obligated Services (EAOS) and are done in lieu of trial by court martial, and Convenience of the Government (COG). A voluntary COG may include early release to further education, hardship, and pregnancy. ADSEPS that are considered involuntary include, convenience of the government, defective enlistments and inductions, delayed entry program, misconduct, alcohol rehab failure, unsatisfactory performance and many more. Involuntary COG reasons include Physical or Mental Conditions, Personality Disorders, Parenthood, Review action and Being an Alien. Misconduct reasons include minor disciplinary infractions, patterns of misconduct, commission of a serious offense, civilian conviction, and drug abuse.

E. THE U.S. NAVY'S CURRENT PERSONNEL MANNING LEVELS

Regarding the United States Navy's current Manning levels, there has been conflicting information presented. In January 2021, the Chief of Naval Personnel, Vice Adm. John B. Nowell, Jr., reported that Fleet Manning was at the highest since 2015 (Faram, 2021). With the Chief of Naval Personnel tasking nearly 20,000 MyNavy HR personnel to ensure the fleet had enough Sailors to meet its mission, based on the slogan "Build A Navy That Can Fight and Win," the beginning of 2021 showed that there are more Sailors serving at sea in 2021, than at any time in the past seven years. It is also noted that Sailors in the fleet have expressed concern over the numbers of gapped billets on sea duty, however, the Chief of Naval Personnel states that this is because the United States Navy upped the sea-duty manning levels to increase Fleet Readiness (Faram, 2021). This is a concern because it highlights the difference between manning and manpower. Manpower is a term used for Congressionally approved billets in the Naval Manpower Documents, while Manning is a term used for personnel identified to fill the billets in the Naval Manpower Documents (Todd, n.d.). When there is a mismatch in the manning and manpower, this creates gapped billets where a Sailor is not identified to fill that position. Ideally, the command would want a Fit Sailor, however, most times these billets remain gapped, or a less suitable Sailor (fill) is identified for that position.

However, by June of 2021, *Navy Times* published an article saying that the Navy was masking the extent of manning shortfalls. The article stated that this masking has led to overwork, which has made it more difficult for Sailors to get adequate rest, and prompts questions about safety and readiness (Ziezulewicz, 2021). Essentially, the United States Navy has been tracking and reporting crew levels against the positions that are funded instead of against the number of positions required to safely man a ship, as per their Government Accountability Office report. The issue here is that Navy leaders are misinformed on the accurate manning needs and shortfalls. Even though there were more Sailors on board ships in 2021 than in 2015, this was more of an issue of getting the right flavor of Sailor needed to get the job done. The consequence of not having enough of the right type of Sailors onboard emerged following two separate Surface ship collisions involving the DDGs USS Fitzgerald

and USS John S. McCain, which resulted in the deaths of 17 Sailors in 2017 (Ziezulewicz, 2021).

F. INCREASING READINESS TO COMBAT FILL ISSUES

The Unites States Navy recognizes that sometimes when a command receives a Junior Sailor as a Fill and not a Fit, additional pressure is put on the Command to bring this Sailor up to speed. The time and effort used in this initial training takes away from the commands ability to meet readiness requirements sooner. One effort that the United States Navy is doing to increase total fleet readiness is increasing the readiness levels of Sailors coming out of Boot Camp. Vice Admiral Nowell states that "[the Navy leadership] is working to build a Level One Fire Fighting & Damage Control Wet Trainer at OTC Great Lakes to certify every Sailor entering the fleet" (Faram, 2021). By sending Sailors, who are already qualified Level One, out to the ships and submarines in the fleet, this allows Commands to gear their focus toward getting the correct firefighting and damage control quotes for those expiring certifications.

The second effort that the Navy has made, which is already reaping benefits, is the efforts to enforce the concept of "Warrior Toughness." The goal is to promote a culture of resilience and toughness that will reside in both recruits and officers while [they are] in the controlled training pipeline. This allows the creation of Sailors who can thrive in adversity (Faram, 2021). Through 11 hours of training, the goal is to develop mental and spiritual preparation as well as perform psychological techniques to aid in the improvement of Sailors physical and cognitive performance. This technique has been used by the U.S. SEALs for many years and has reaped many benefits such as allowing them to act and perform at the needed levels (Faram, 2021).

G. WHAT IS AN ENLISTED MANNING INQUIRY REPORT AND HOW DOES IT RELATE TO UNPLANNED LOSSES?

An Enlisted Manning Inquiry Report (EMIR) is used to notify ISIC, TYCOM, MCA, and PERS-4013 of significant enlisted manning concerns (USN, 2019). One major reason that would trigger an EMIR submission is an unplanned loss of personnel who have a significant effect on the command. An Unplanned Loss can be categorized as reassignment

for humanitarian reason (HUMS), death, immediate availability (AVAILS), pregnancy, limited duty (LIMDU), disqualifications, etc. (USN, 2019). Once an EMIR is submitted, PERS-4013 will provide options to the command on how to improve the NEC manning situation. However, before a Sailors is officially a UPL, they may spend significant time off the ship and away from the command. Considering an EMIR cannot be submitted until the Sailor is officially a permanent loss from the command, there will be a shortage of personnel onboard the ship that cannot be rectified.

H. PREVIOUS ASSUMPTIONS ABOUT UNPLANNED LOSSES AND PREGNANCY

During the Department of Defense Appropriations for Fiscal Year 2000 hearing, Senator Richard C. Shelby raised the question regarding pregnancy and its contribution to unplanned losses in the United States Navy. At the time, the Navy reported that it was short about 18,000 - 20,000 Sailors, many of which were filling sea duty billets (Department of Defense [DOD] Appropriations, 1999). Senator Richard C. Shelby made note that the Center for Naval Analysis reported that the UPL rate for women in Sea Duty billets was roughly 2.5 times the UPL rate for men and more than one-third of the 25% were lost due to pregnancy. This led Senator Shelby to begin to question whether pregnancy and parenthood were compatible with a Navy who is combat ready and whether the Peoples Liberation Army Navy (PLA(N)) had similar policies regarding the women in its combat forces.

The response to this question revealed that the assumptions were not in line with the facts. Contrary to popular belief, pregnancy only accounted for 6% of UPL on Navy ships in 1997, while medical related UPLs (40%), other than pregnancy, and disciplinary issues (39%) accounted for a majority of Navy unplanned losses (DOD Appropriations, 1999). The transcript goes on to state that Sailors who are pregnant have a higher rate of return to Sea Duty and least likely to leave the Navy than any other UPL category. Regarding separation from the Navy, it is stated in the transcript that less than 30% of pregnancy UPL left the Navy, which is relatively low considering that more than 40% of "other medical" UPL and more than 90% of disciplinary UPL Sailors left the Navy.

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III. ANALYTIC APPROACH

A. INTRODUCTION

We received our data from Commander, Naval Surface Forces, U.S. Pacific Fleet Force Master Chief Greg Carlson on 11 February 2022. The data contains four consecutive years of Unplanned Loss statistics, beginning with year 2019 and ending in the March of 2022. The data is categorized by the year the UPL occurred, the AOR, the ship/command affected, the Sailor's rank, and the reason for the loss. Reasons for an unplanned loss include the following categories from the data: Alcohol/Drug Abuse, Death on Active Duty, Drug Abuse, Entry Level Performance, Fraud/Erroneous Entry, Hardship, Misconduct, Other Attrite, Other Medical or Disability, Parenthood, Pregnancy, Serious Offense, Or Released to Officer Program [Appendix B]. We attribute the mental health related unplanned losses to the Other Medical or Disability category. We also consider the Death on Active-Duty category to include all suicide cases. The data analyzed through this thesis included all seagoing commands as noted in Appendix C. However, for the purpose of our analysis, we only used the data pertaining to Surface Navy Warships to find the impact of mental health related UPLs in the surface Navy community:

- CG
- DDG
- LCC
- LCS
- LHA
- LHA
- LHD
- LPD
- LSD
- MCM
- PC

Our method of approach to maximize the utilization of the data received is presented in the form of pivot tables to develop trend analysis to emphasize the impact that mental health related unplanned losses have the Surface Navy. We have simplified the data to be understood quickly and efficiently. In Chapter V, we have provided recommendations to address the issues presented.

B. METHODOLOGY AND DATA ANALYSIS

The first portion of the data analysis began by looking for ways in which we wanted to separate the data. Our goal was to display the data in a way that would demonstrate to how AOR, platform, gender and paygrade played a role in UPLs. In addition, we wanted to see specifically how mental health related UPLs compared against all categories of UPLs

The data was provided to us from Naval Surface Forces Pacific in the form of multiple Microsoft Excel sheets It was separated into four different sheets consisting of one section of raw data and three sections of pivot tables. The first Microsoft Excel sheet contained the raw data. It is important to note that the raw data we received had a filter on it, only allowing us to see the Commands with a data set of 1, This prevented us from seeing all the loss codes relating to the commands. To display the full data, we had to expand that column and then expand the loss codes and "Select All." By doing this we were able to view the completed raw data that we would ultimately use to generate the pivot tables and graphs. On this worksheet, we also added an additional column for ship platform so we would be able to use that as an additional filter. The second Microsoft Excel sheet contained a pivot table displaying each individual command and how many unplanned losses each command had from FY19 to FY22 and displaying the grand total at the end. The Third Section contained a pivot table displaying both CNSL and CNSP, while separating the total number of unplanned losses by gender and paygrade. The Final Section separated the data by CNSL and CNSP as well, while separating each individual unplanned loss code by gender.

Our data analysis began by looking at how the Area of Operational Responsibility (AOR) may affect the number of UPLs across the different ranks of the fleet. The term AOR is defined as either CNSL, located on the east coast and CNSP, located on the west coast. We will move on to comparing the Loss Codes that impact the fleet and make up greater than 0.5% of the grand total UPL as seen in Appendix B. Following this, we examined the top five unplanned loss codes and compared those across genders and AOR from FY19-FY21. After this section, we did not include FY22 as that year's data is incomplete and would have shown relatively low numbers compared to the other three fiscal years. Once we completed our examination of the top five loss coats, we focused on

the mental health related unplanned losses and separated them by rank between FY21 and FY22. Finally in our data analysis, we looked at the unplanned losses related to mental health from FY 19 to FY 22 and separated them by ship platform.

1. CNSL and CNSP - Total UPL Across Paygrade from FY 19-FY22

In the first two portions of the data analysis, we compared the total number of unplanned losses across all sea going commands, separated by paygrade and AOR from FY19 to FY22. From the data in Figure 1 and Figure 2, an overall increase is apparent in UPLs each year regardless of the AOR. It should be noted that the FY22 data only shows information up to February 2022.

Figure 1 depicts four bar graphs showing total numbers of UPLs across all enlisted paygrades from FY19-FY22 for CNSL. It shows that majority of UPLs occur for ranks E-1 to E-5. In addition, the chart shows that E-8 and E-9 UPLs are less likely to be seen by a command.

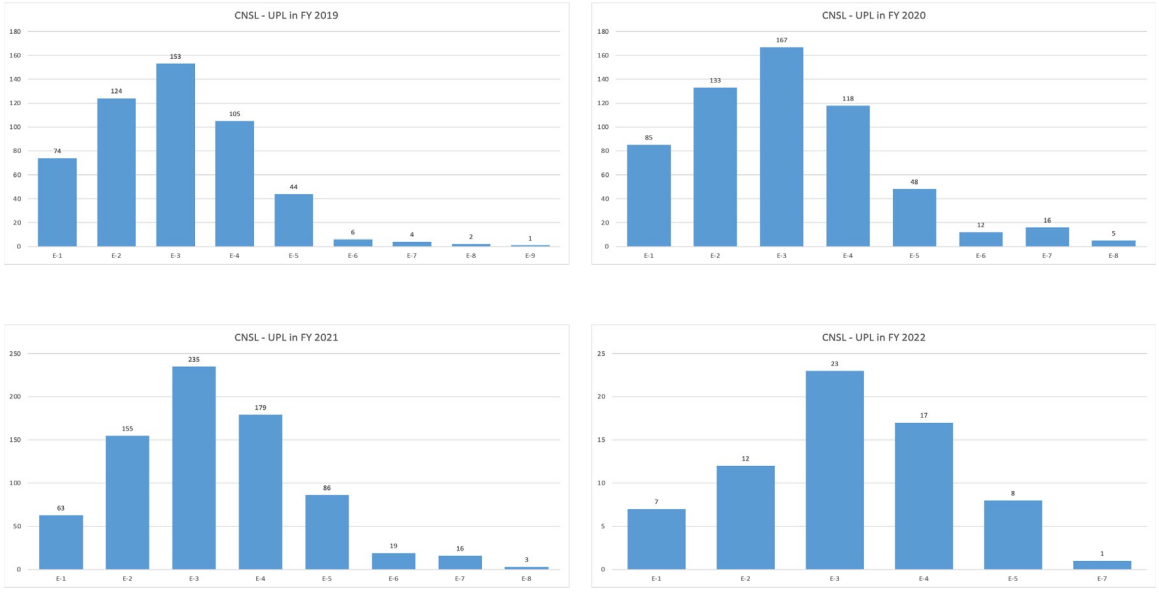

Figure 1. Total UPLs FY19-FY22 for Commander, Naval Surface Force Atlantic (CNSL).

Figure 2 depicts four bar graphs showing total numbers if UPLs across all enlisted paygrades from FY19-FY22 for CNSP. In Figure 2 it shows that similar to CNSL, CNSP sees most of the UPLs occurring in the E-1 to E-5 range with the highest number being the E-3 paygrade.

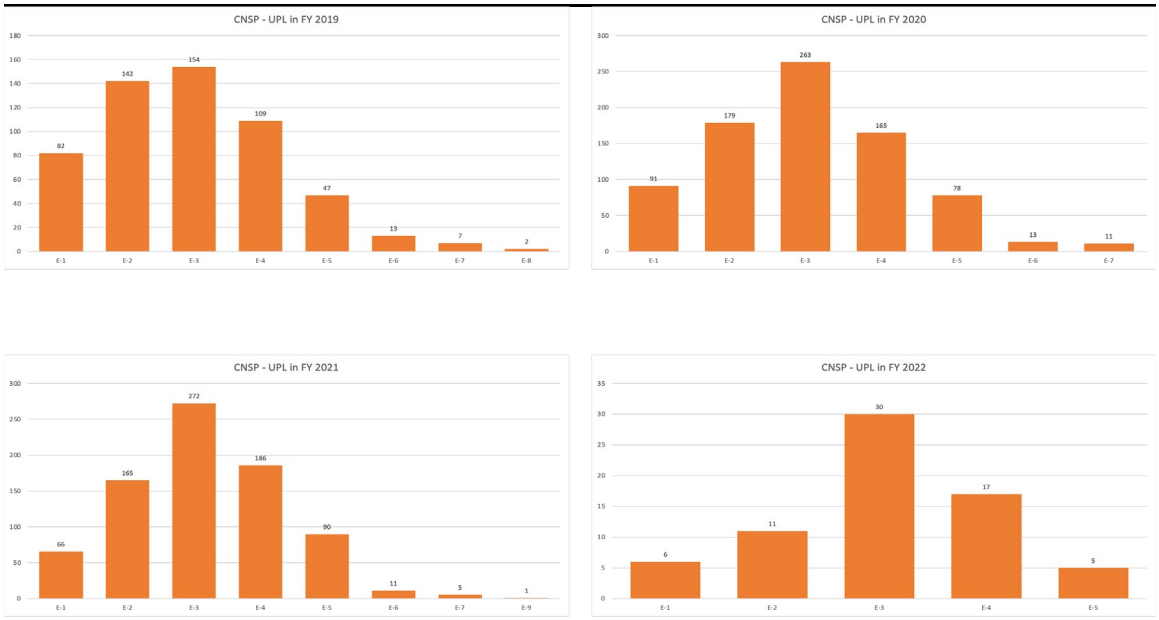

Figure 2. Total UPLs FY19-FY22 for Commander, Naval Surface Force Pacific (CNSP).

2. UPL By Loss Codes Impacting the Fleet > 0.5% of Total Losses (FY19-FY22)

For this section, we We used the information from at the document in Appendix B. The graphs shown in Figure 3 - Figure 5 show that across all seagoing commands, Other Medical or Disability remained the leading cause of UPLs with Drug Abuse and Misconduct following, for FY19-FY21. For FY 22, in Figure 6, we see that the third leading cause of an UPL across the fleet moved to Misconduct.

Figure 3 depicts total UPL by Loss Codes that make up greater than >0.5% of all losses in FY19. It shows that during FY19 the categories of drug abuse and miscoduct were

roughly the same, while the category other medical or disability accounted for most of the UPLs.

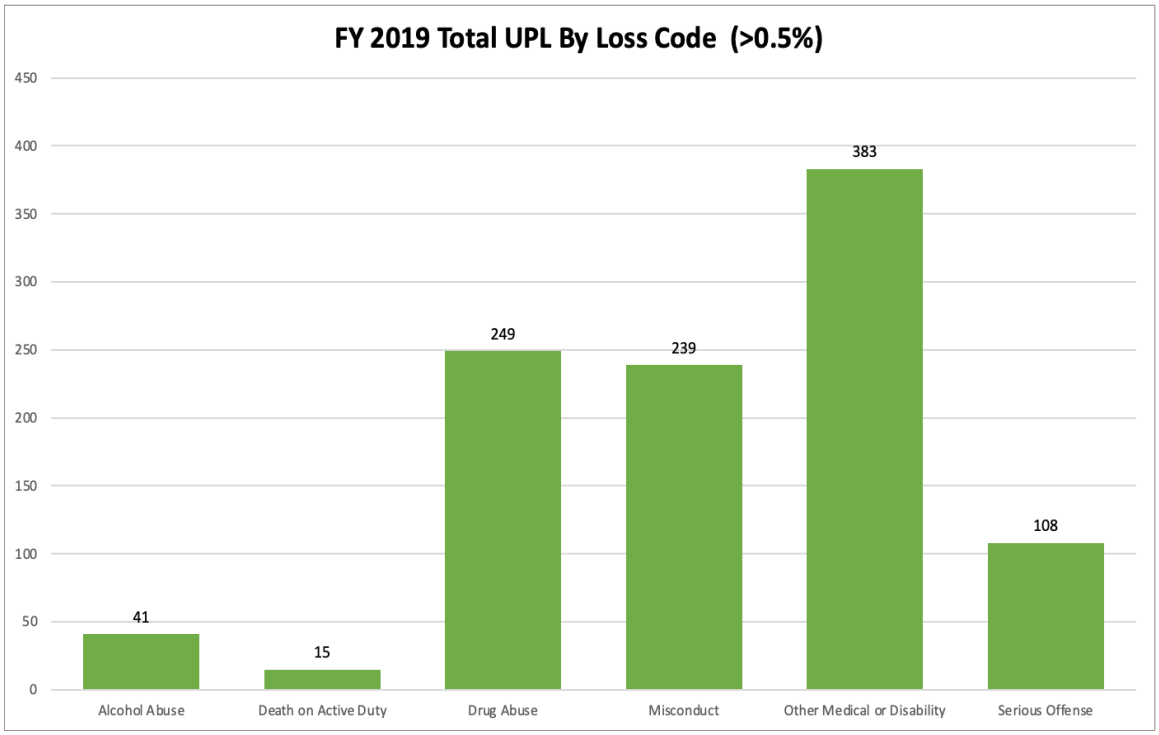

Figure 3. UPL by Loss Codes (>0.5% of Total Loss) FY19

Figure 4 depicts total UPL by Loss Codes that make up greater than >0.5% of all losses in FY20. It showes that although other medical or disability remained the leading reason for an UPL, drug abuse increase by almost 200 Silors for the FY20. During this timefrme, the country was experiencing the COVID-19 pandemic and drug testing was not enforced for much of the year. It is speculated that many Sailors may have taken advantage of this and when tetsing resued, it resulted in many Sailors testing positive for a variety of drugs and being discharge.

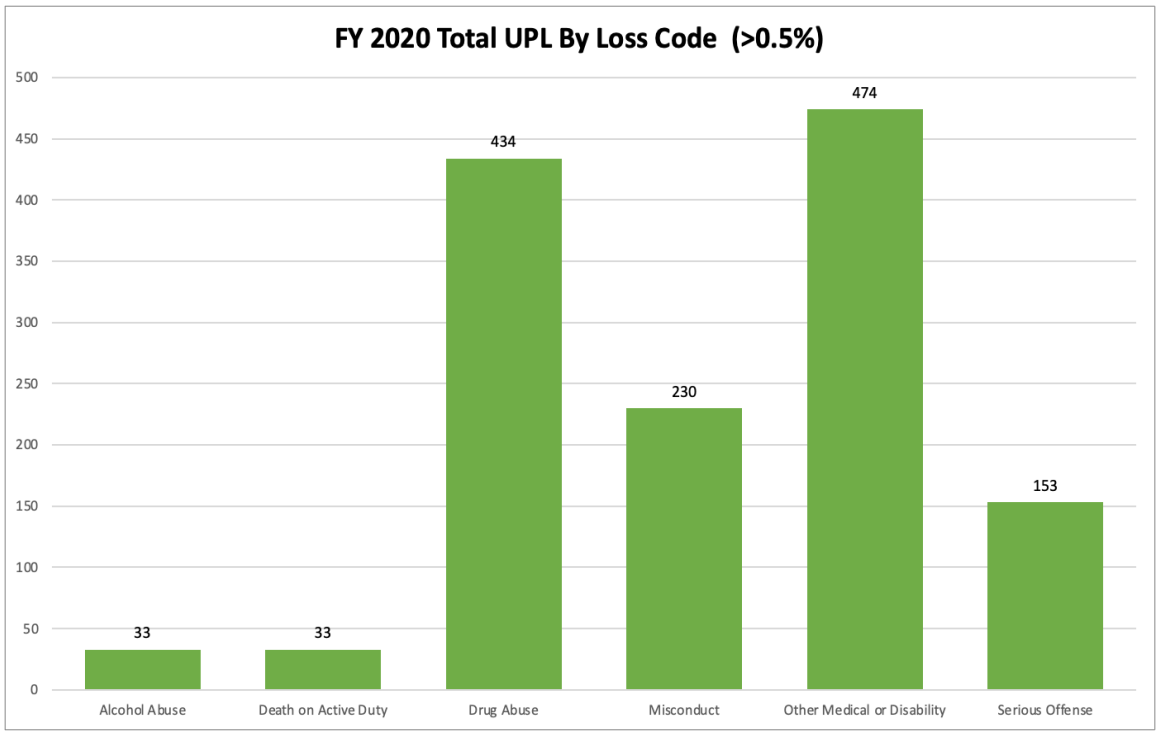

Figure 4. UPL by Loss Codes (>0.5% of Total Loss) FY20

Figure 5 depicts total UPL by Loss Codes that make up greater than >0.5% of all losses in FY21. It shows that the other medicalor disability category remained the leading UPL code, with drug abus and misconduct following behind. However, unlike the previous years, we see that the parenthood category becomes an UPL code impacting the overal total by more than 0.5%. During FY2021, many parents were required to return to work and it is speculated that change may have influenced the increase in UPL regarding parenthood.

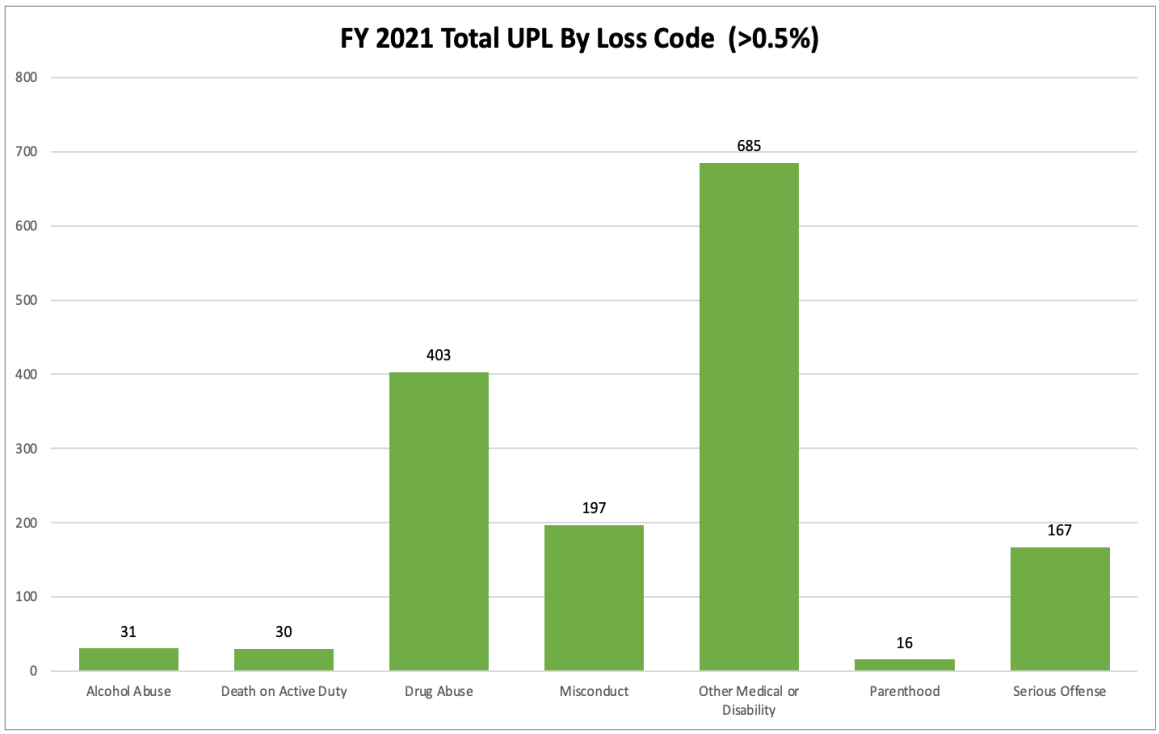

Figure 5. UPL by Loss Codes (>0.5% of Total Loss) FY 21

Figure 6 depicts total UPL by Loss Codes that make up greater than >0.5% of all losses in FY22. The chart shows that for other medical and disability, drug abuse and misconduct remain the top three UPL codes. Howevre, we see that during the first quarter of FY22, hardship and pregnancy categories began to influence the overall totoal of UPL by greater than 0.5%.

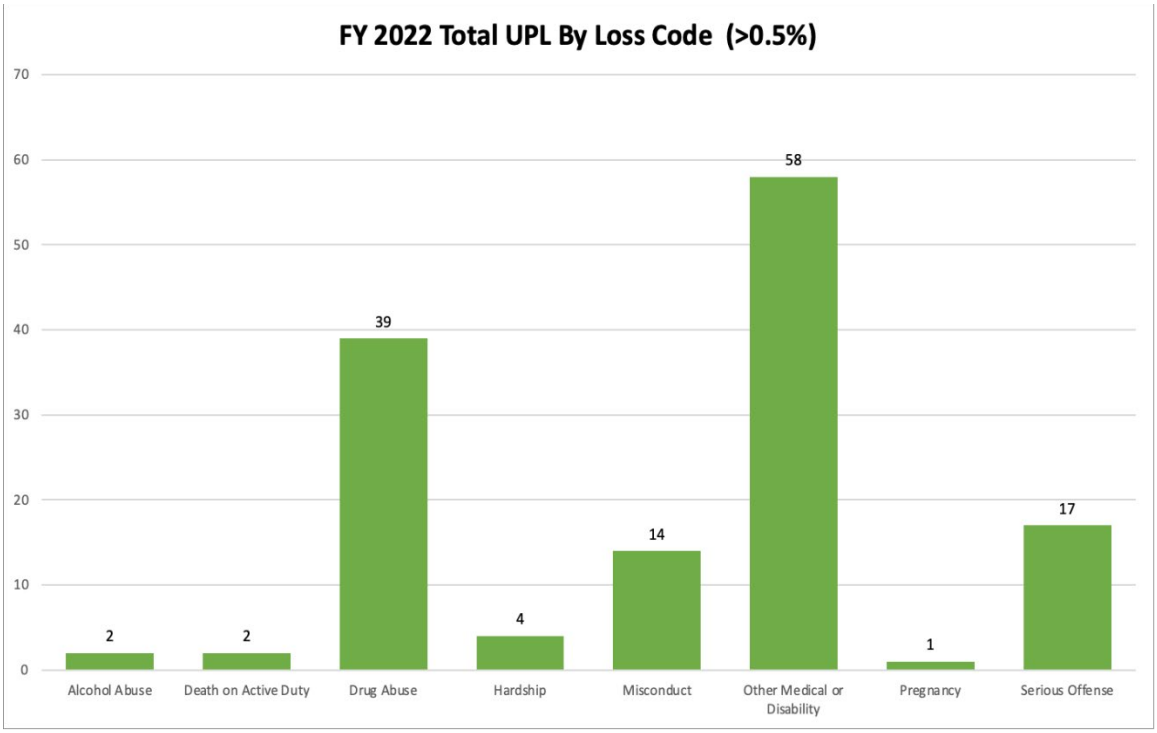

Figure 6. UPL by Loss Codes (>0.5% of Total Loss) FY22

3. UPL By Top 5 Loss Codes Impacting the Fleet by Gender and AOR (FY19-FY22)

In this section we examine UPLs by Gender and AOR. Our goal was to see which gender had the highest number of UPL across the top five loss codes. In addition, we wanted to see how the AOR influenced which gender had higher numbers of UPLs. From Figure 7 - Figure 10, we see that the Female numbers are much lower as they account for roughly 20% of the Navy (Department of Defense [DOD], 2021). In addition, a shift is seen from the leading UPL loss code being Misconduct and Drug Abuse to Medical (Mental Health) in FY21 and FY22 overall.

Figure 7 depicts UPL categorized by gender and AOR for FY19. In this chart we see that for during FY19 CNSL the category of misconduct accounted for the most UPLs among males, while other medical or disability were the highest numbers of UPLs for female. For CNSP, the category of other medical or disability accounted for the highest number of UPLS for both males and females.

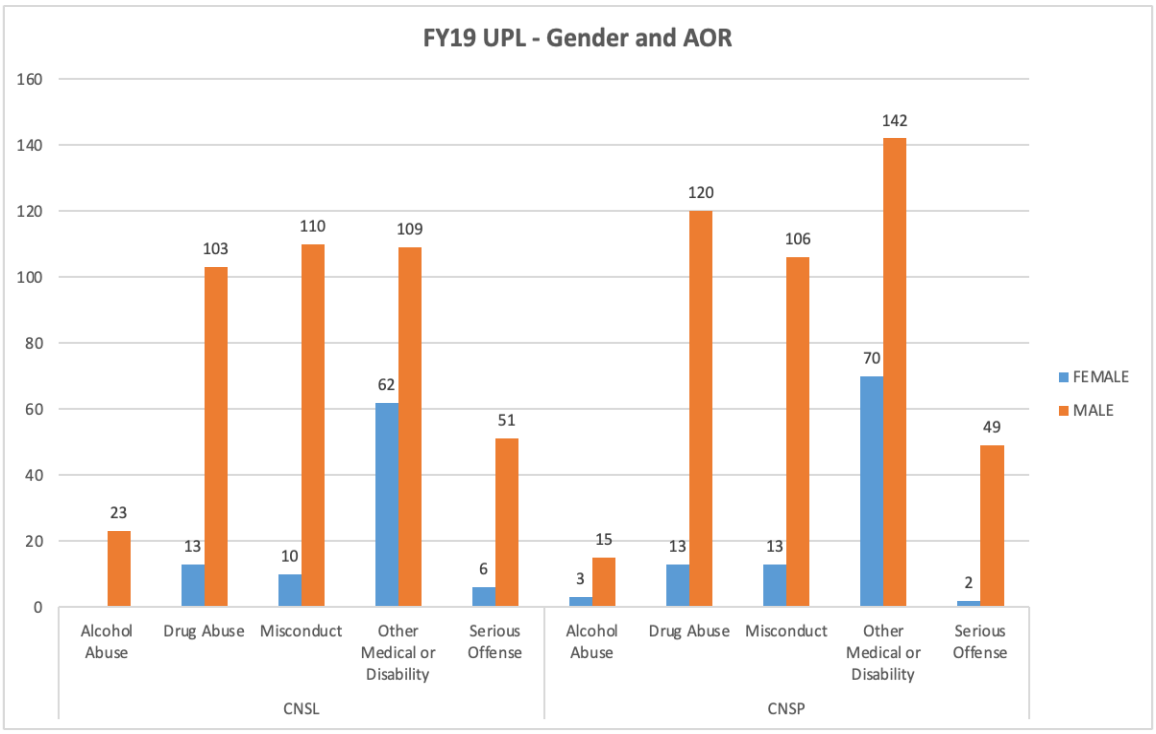

Figure 7. UPLs cateorized by Gender and AOR (FY19)

Figure 8 depicts UPL categorized by gender and AOR for FY20. In this chart we see that for during FY19 CNSL the category of drug abuse accounted for the most UPLs among males, while we continue to see the other medical or disability category accounting for a majority of UPLs for females. For CNSP, the category of drug abuse accounted for the highest number of UPLS for males with other medical or disability being the second leading UPL code. For females, other medical or disability remained the category with the highest number of UPLs.

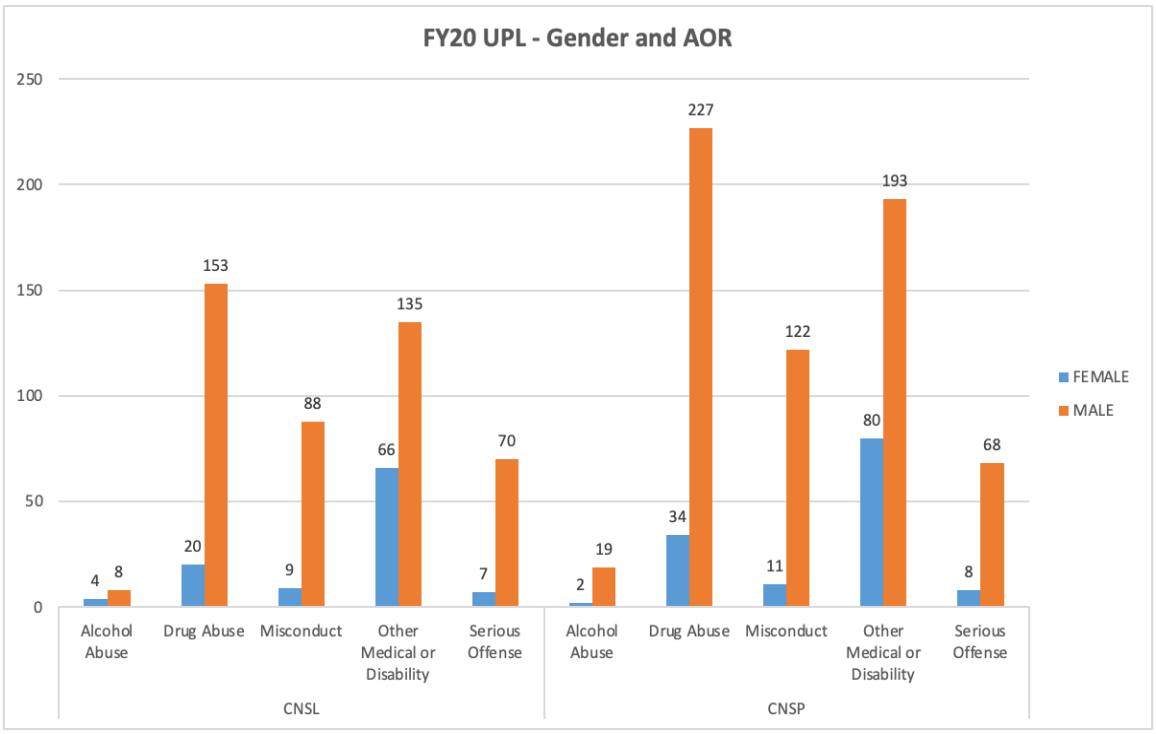

Figure 8. UPLs categorized by Gender and AOR (FY20)

Figure 9 depicts UPL categorized by gender and AOR for FY21. In this chart we see that for during FY19 both CNSL and CNSP the category of other medical and disability account for the most UPLs among males and females.

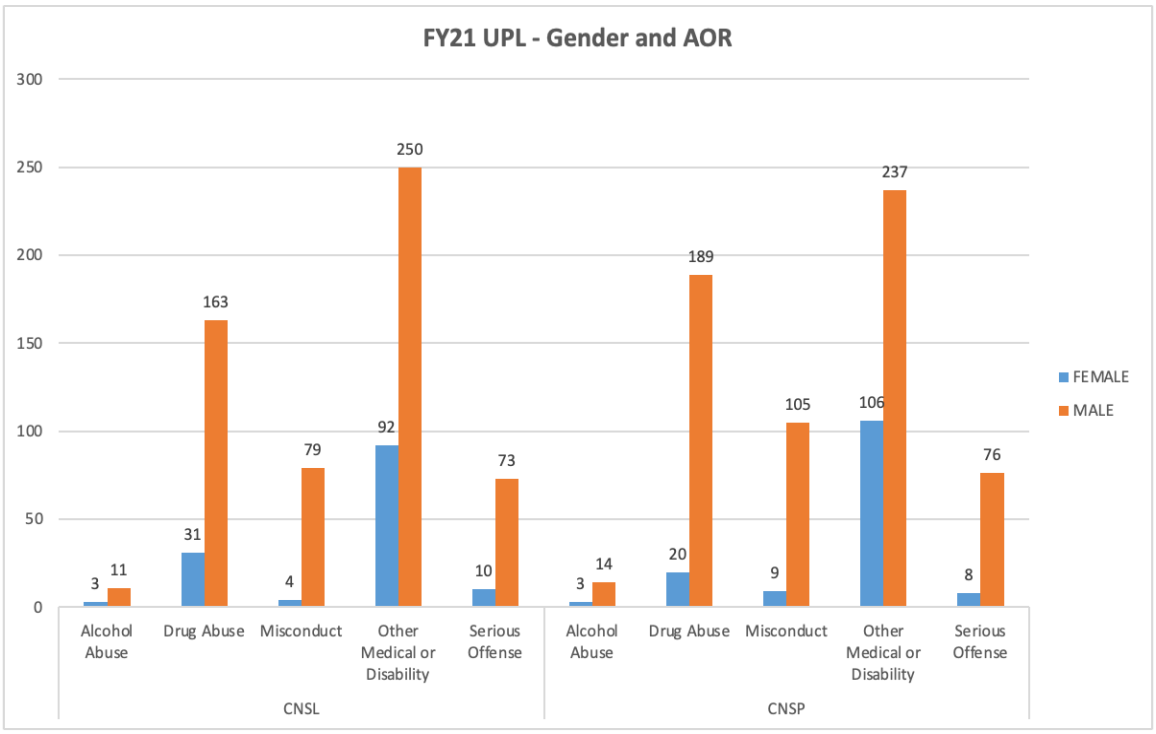

Figure 9. UPLs categorized by Gender and AOR (FY21)

Figure 10 depicts UPL categorized by gender and AOR for FY19. In this chart we see that for during the first quarter of FY22 in CNSL the category of other medical or disability accounted for the most UPLs among males and female Sailors. For CNSP, the category of drug abuse became the leading cause for male UPLs, while other medical or disability accounted for the highest number of UPLS for females.

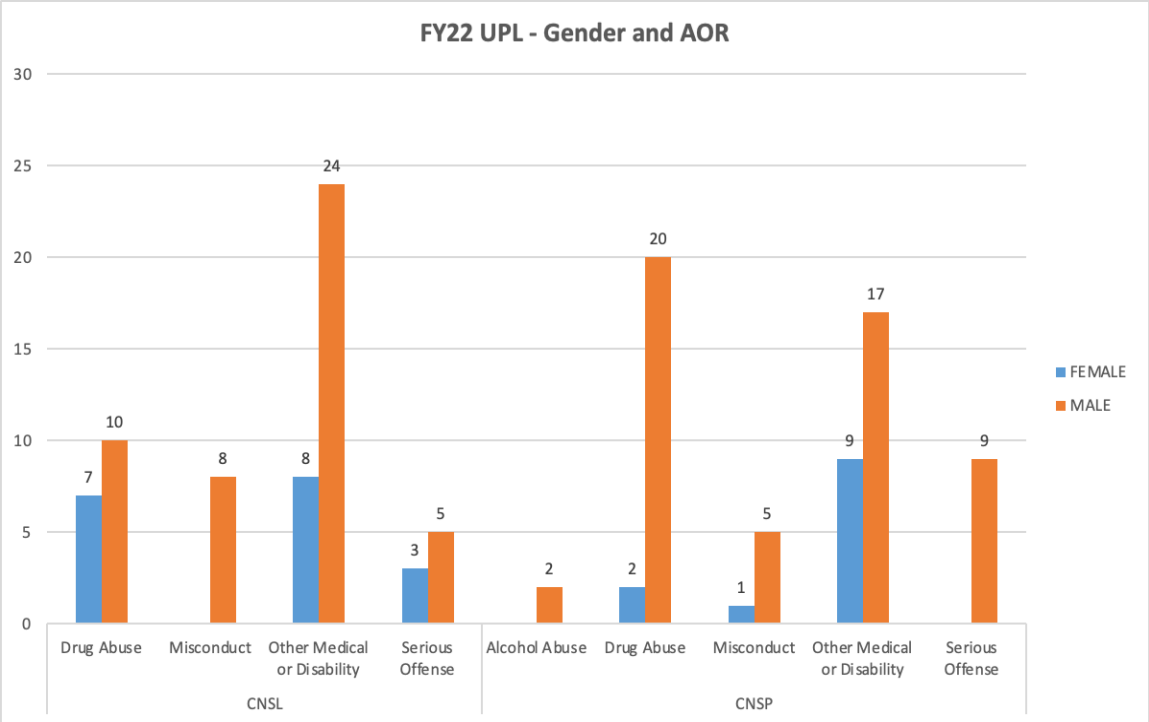

Figure 10. UPLs categorized by Gender and AOR (FY22)

4. UPL By Top 5 Loss Codes Impacting the Fleet Over Time (FY19-FY21)

In this section we examine the top five loss codes and how they impact the fleet from FY19 to FY21. We have excluded FY22 from this section, as it only depicts the first quarter and not the whole year.

From the previous figures., we see that other medical/disability, drug abuse, misconduct, serious offenses, and alcohol abuse are the five leading causes for UPLs from FY19-FY21. In Figure 11, you see that numbers for Other Medical or Disability have increased overtime and we see a spike from FY20-FY21 of 44.5%.

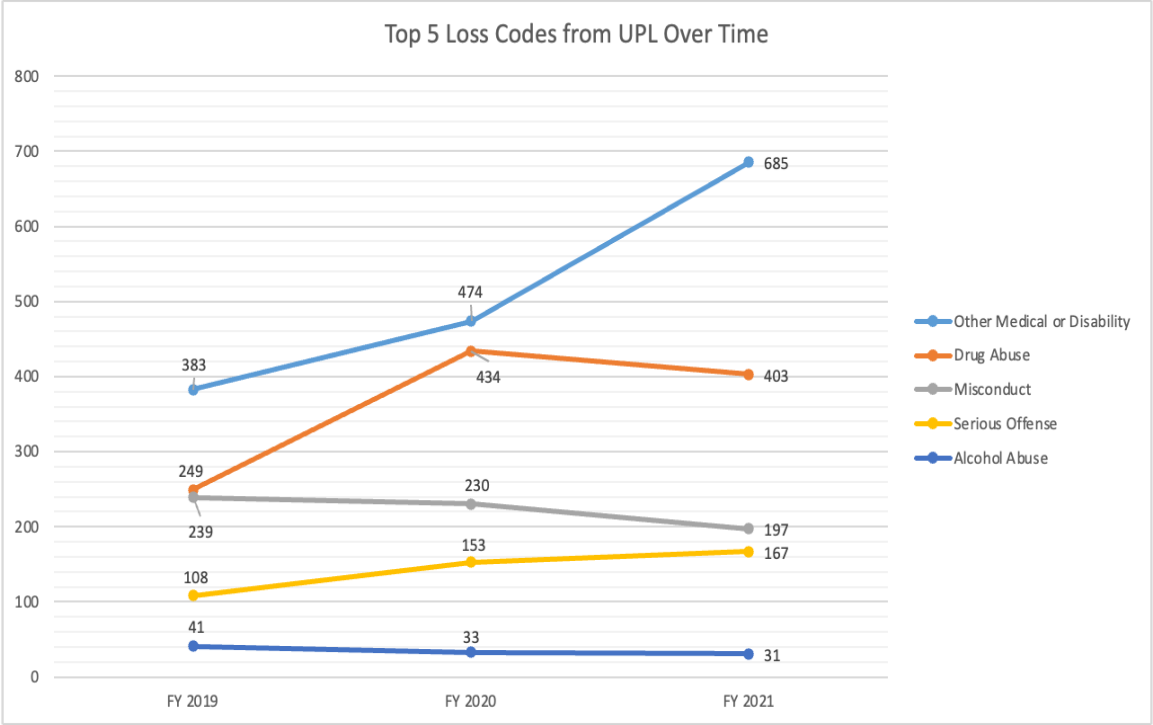

Figure 11. Top 5 Loss Codes of UPL from FY19-FY21

5. Mental Health Related UPL by Rank Over Time (FY19-FY21)

In this section we examine the impact paygrade had on the UPL category of other medical or disability. From previous charts we saw that the other medical or disability category is the leading cause of UPLs in the fleet. This is also the category that mental health related UPL would be classified in.

Figure 12 depicts a small increase from the E-1 to E-5 paygrade between FY19 to FY20, followed by a larger increase in FY21. We hypothesize that this could be due to the U.S. Navy's response to the Corona Virus Pandemic, which we expand on in the Future Research Options section in Chapter VI. Because of the quarantines, the lack of familial interaction, and the uncertainty during that time fleetwide, it is possible that these factors could have exasperated any underlying mental health issues that the sailors could have already had. We also hypothesize that this increase may be due to the fact that mental health is ubiquitous, and more Sailors are seeking to use mental health services, instead of finding

other outlets such as drug and alcohol use. In addition, in Figure 12, we see that E-3s experienced the greatest number of UPLs due to mental health.

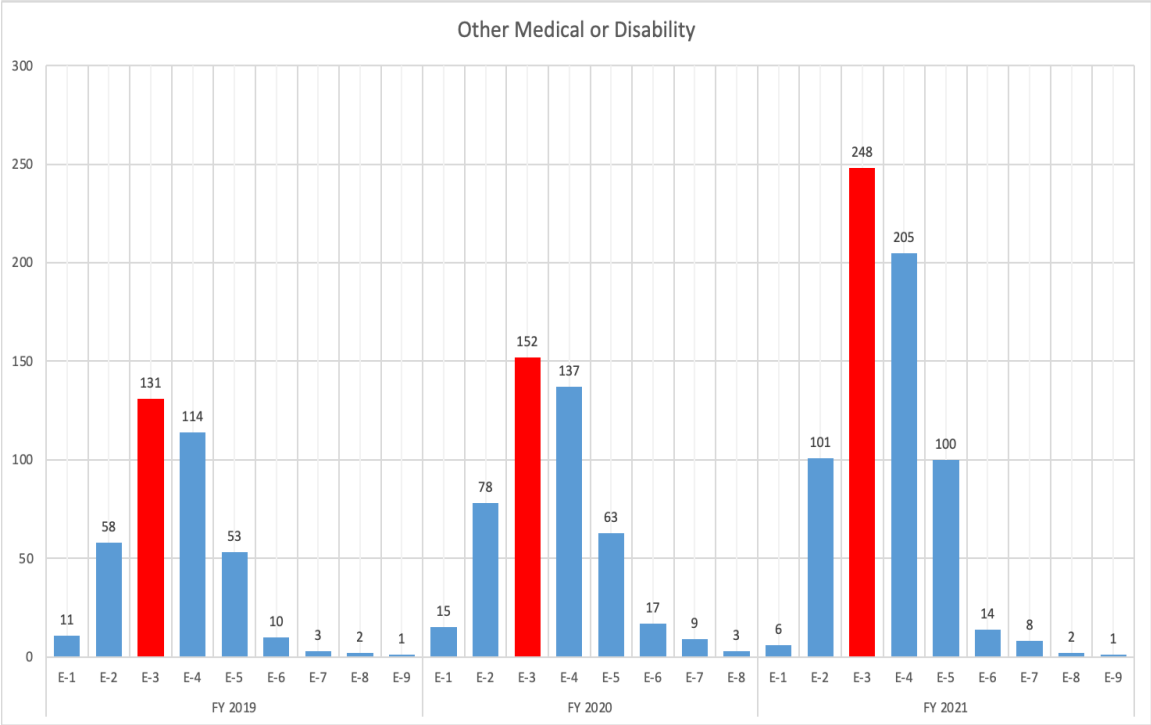

Figure 12. Mental Health UPL categorized by Rank from FY19-FY21

6. Total Mental Health Related UPL by Platform (FY19-FY22)

In this section we examine how a ships platform may influence the number of UPLs in the other medical or disability category from FY19-FY22.

From Figure 13, we see that across the different platforms, DDGs have the highest number of Other Medical/Disability (Mental Health) related UPLs fleetwide. It is important to note, that the USN has more DDGs than any other platform. When you look at individual ships, the larger the ship, the more UPLs. Following DDGs we see that the larger platforms the greater the number of Other Medical/Disability (Mental Health) UPLs.

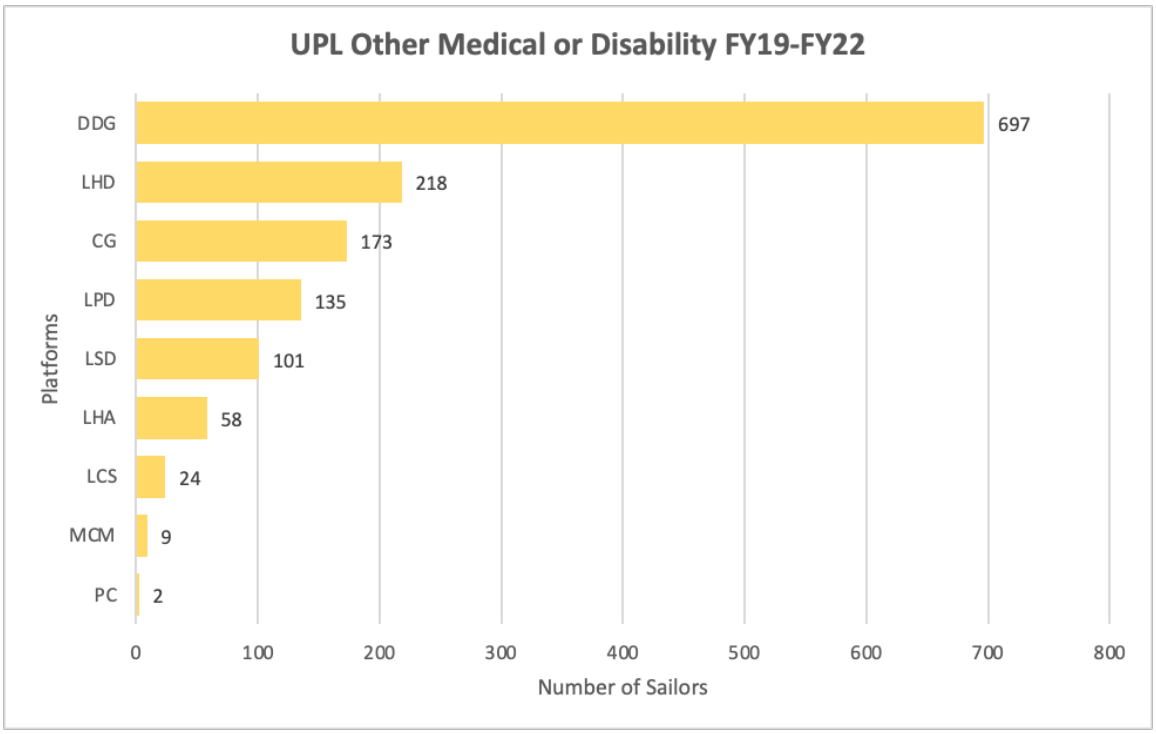

Figure 13. Total Mental Health UPL on all U.S. Navy Warships from FY19-FY22

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IV. CONCLUSION

We came into this study with a list of assumptions based on prior knowledge and experience that were confirmed by our analysis of the data. Our project is a continuation of a study titled Unplanned Losses in the Surface Navy submitted in March of 2022, which used data gathered by CNSP. We were able to reach out to the Force Culture of Excellence Officer and Force Master Chief Petty Officer at Commander, Surface Navy Pacific (COMNAVSURFPAC), Naval Personnel Command, as well as conduct interviews of an impacted Sailor; all of which helped to give us a holistic picture of the process. Through the course of our study, we recognized that we were developing more questions than we were receiving answers; however, we believe that this study will serve as an easy-to-use tool and reference for future studies regarding UPLs.

Through our research we interviewed with a former FC3 who initially signed a six-year contract before being administratively separated and became a mental health related UPL. Before he was able to complete his six years, he received his DD-214 after two years of service due to "failure to adapt" after experiencing depression and struggling with his mental health. This Sailor enlisted in March of 2020, right as the COVID-19 pandemic emerged. Because of the pandemic, FC3, and the other Sailors, spent much of their time inside the barracks room in Great Lakes for prolonged periods. During this time, many Sailors expressed their concern for their mental health and requested assistance. However, because of the uncertainty surrounding COVID-19, these Sailors were unable to seek in-person mental health services. Eventually, some sailors would express their desire to harm themselves or others, which resulted in expedited transfers. Sailors awaiting transfers were disenrolled from classes and training and were instead required to assist staff in different tasks such as cleaning trash around base a few hours of the day. It took about nine months for FC3's paperwork to be completed. This turnaround time was shorter for Sailors who verbally expressed desires to harm themselves or others.

This interview shed light on the struggles that the Sailors were experiencing while trying to get help for their mental health. This also showed us the difficulties the Sailors had during the out-process. When these Sailors were disenrolled from class, they lost their

orders and were no longer going to be shipped out to different commands that needed them. Although the commands were losing them at an early state, if they were expecting this new Sailor to fill a billet on the ship, they would now need to wait longer than before.

Our research on the way the COVID-19 pandemic affected the fleet extended into NPS. Currently NPS has three military officers who refused the COVID vaccine and are in the same predicament as FC3. They were disenrolled from class and assigned different roles around campus. At the time, some Officers may have already had orders to their next commands, and since they are now awaiting DD-214s, those commands will need a replacement. This situation is not unique to NPS, as 4,000 other Sailors who refused the vaccine can expect to be in the same situation. In all cases mentioned, they will eventually become UPLs and their previous gaining commands, will need to prepare for replacements or gapped billets.

The solution to the UPL problem is not one that can be corrected immediately as it requires a shift in Navy culture instilled over a period of time. However, our goal with this study was to identify and analyze shifts in UPLs in order to generate recommendation that, when gradually applied, can aid in the culture change. Through our analysis we noticed a shift in the leading cause of UPLs from the misconduct and alcohol abuse categories to the other medical or disability category. This allowed us to focus on the mental health related aspects of UPLs that were exposed from our research.

After our analysis of the data, we saw that more information is needed when tracking UPLs. In addition to rank, gender, platform and UPL code, it should be annotated during what phase of the OFRP a Sailor becomes a UPL. The more discriminatory factors that can be added without introducing PII to the data, the more thorough of an analysis can be done to provided long term solutions.

From FY19 to FY22, a gradual increase in UPLs is shown from the data across most of the loss codes. However, for the other medical or disability category, which includes mental health related UPLs, we saw a sharp increase from FY19 to FY22. Addressing some of the loss code categories, such as the drug and alcohol abuse, we see a more direct solution than addressing mental health related UPLs. In order to correct this

specific issue, we believe that the stigma surrounding mental health in the Navy needs to be address. By admitting there is a negative stigma associated with the use of mental health services while on active duty, we can begin the process of finding a solution to the increase of mental health related UPLs in SURFOR.

On January 11, 2022, Admiral Michael Gilday, the Chief of Naval Operations, released a new Navy initiative called "Get Real, Get Better." The "Get Real, Get Better" initiative is a call to action for every Navy leader to apply a set of Naval-proven leadership and problem solving best practices that empower our people to achieve exceptional performance (ADM Michael Gilday, 2022). To "Get Real," Sailors and Navy Leaders are charged with making self-assessments while in order to "Get Better," they are charged with self-correcting; this means fixing problems at the lowest level. From our analysis, we agree that continually monitoring your mental health and recognizing when you need assistance, is the first step in accomplishing this initiative. However, it is not enough to self-assess and self-correct. Navy leaders need to set this standard and encourage their Sailors to "Get Real and Get Better." By having leaders build trust within their commands and letting Sailors know that it's okay to not be okay, we believe that we will see the numbers of mental health related UPLs decrease over time.

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V. RECOMMENDATIONS

A. UNIVERSAL DEFINITION OF UNPLANNED LOSSES (UPL)

Through our initial research, we discovered the term "unplanned loss" (UPL) is undefined. From the previous study, for the sake of uniformity, "unplanned loss" was described as the loss of a Sailor prior to their EAOS and who received a DD214 (Mann et al., 2022). We believe that by providing a universal definition for the term "unplanned loss," it would alleviate confusion in discussion and would also aid in getting the correct resources to the Commands who need them. For example, we recognized that a Sailor becomes a "loss" to a ship far before they become an "Unplanned Loss" to the Navy. The major issue that comes from this lack of definition is that a ship will begin to feel the effects of being undermanned while the Sailor goes through their transition out of the Navy and the commands, they leave are unable to receive a replacement. This places a burden on not only the original Division and original Command but also other ships on the Waterfront. When this Sailor begins to transition out of the Navy, the other Sailors in their Division must pick up the extra work and responsibilities that were held by that Sailor. This additional burden may begin to have negative effects on Sailors in that division, and this could ultimately result in more mental health related unplanned losses down the road. For the Waterfront, if there is a ship who must provide a Sailor to fulfill the replacement for an upcoming exercise of another command, that original ship now loses someone from their own crew who had their own roles and responsibilities. This could become even more cumbersome if the original Sailor held a critical NEC.

If we provide a definition for unplanned losses, the USN could formulate and enforce an UPL SOP. In the SOP, it would delineate the process of what happens once a Sailor reaches "Potential Unplanned Loss" (P-UPL) status. For example, the SOP would state that when a Sailor is going on LIMDU and is unable to perform their responsibilities for more than three weeks, we would begin the process of finding a temporary replacement. Our recommendation would be to locate a Reservist who holds the NEC of the P-UPL Sailor, and they would then be assigned to the Command for a set amount of time.

B. UNIFORM TRACKING OF UNPLANNED LOSSES ON U.S. NAVY SURFACE SHIPS AND MORE EFFICIENT USE/ANALYSIS OF THE SHIPS STAY BEHIND LIST

Through research and discussion, we discovered that the most accurate reflection of a ship's standing, regarding personal, is their stay behind list. The stay behind list is generated when a ship must get underway for an event or exercise but must also leave behind Sailors for a variety of reasons, such as for school, medical, or for family matters. Once these stay behind lists are populated, they are generally sent to the ISIC to ensure that Sailors muster with the right entity. However, that is where the accountability ends. These same Sailors are not tracked as closely in DRRS-N. This is a detriment because if they were tracked in DRRS-N, their status would be sent up higher on the chain of command and reflect an inadequate manning for the ship. It is common knowledge in the Navy that regardless of what your manning is currently, prior to COMPTUEX, your ship will be manned at a "Fake Fit." We use the term "Fake Fit" because although your ship will have the correct number of Sailors fulfilling each billet at that time, these are not the same Sailors who would have gone through much of the Basic Phase and Advance Phase of the ships OFRP. The Sailors that come to a command to give it the "Fake Fit" are Sailors from other commands on the waterfront. We believe this makes a threefold problem (1) the command must train the new Sailors who are unfamiliar with this new ship, (2) the new Sailors must adjust themselves to the new ship culture to form a cohesive team and (3) the Sailors are also leaving behind gapped billets on other ships. To create this uniform way of tracking, we recommend that a web based, user-friendly application be generated that would aid in the tracking of P-UPLS. One possibility is to leverage the Naval Postgraduate School Computer Science students and have them create a program that speaks directly to DRRS-N to provide P-UPL data to accurately reflect the Manning of a ship. By reporting the information, the ISIC and Fleet Commanders can see the true health of the command and the Detailers can then aid in getting an appropriate replacement to fill a specific billet.

In addition, we recommend that commands keep track of what phase of the OFRP a Sailor is lost in. We believe this will provide additional insight into forecasting what manning will look like through the different phases. From personal experience, it is seen that many mental health related UPLs occur during the Advanced or Integrated Phases of

the OFRP, prior to a ship's deployment. Many times, the UPLs that are generated during these phases are junior Sailors and Sailors approaching their first deployment. At that point, those Sailors have already gone through Boot Camp and their NEC specific schools. If we continue to lose the Sailors prior to deployment, we are severely reducing that ship's manpower and readiness.

C. SHIFT THE STIGMA SURROUNDING MENTAL HEALTH IN THE U.S. NAVY

Most times, when you ask Sailors and Officers if there is a stigma surrounding using mental health services in the United States Navy, they would agree with you that there is a negative one. The Navy provides multiple resources to provide mental health services to be used by service members and their families. These services are the Military Crisis Line, Military OneSource, Navy Chaplain Care, and the Real Warriors Live Chat, all of which are available 24/7 online or over the phone (USN, n.d.a). However, with the stigma surrounding mental health, many Sailors may be reluctant to seek out the services in fear that it will hurt their career. The purpose of therapy is to help before you are "broken" and unfortunately, by the time many people seek to use mental health services, it is when they have already broken and are asking to be put back together. Not only is this taxing on the Sailor, their family, and friends, but this also creates an additional strain on the command who has a variety of missions and tasks to accomplish. Commands should seek to create a positive association with Sailors seeking mental health related services, as it can only benefit them in the long run.

D. EXTEND THE HIGH YEAR OF TENURE (HYT) FOR E-5S AND SENIOR

One way in which the Armed Services are working to construct and support the optimum size and structure of its forces, is through the Military High Year of Tenure (HYT) Program. The HYT program is what allows the military to maximize retention of the highest qualified servicemembers, ultimately allowing the forces to become more stabilized (The Military Wallet, 2021). As it stands, the United States Air Force has the Highest HYT out of all the armed services as of 2019 (Table 1). Consequently, it is noted that the USAF is now facing booming retention in 2022 even after letting hundreds of

Airmen get out early in 2021 (Cohen, 2022). Although the USN surpassed its retention goals in FY 2021, we believe that by extending the USN HYT- during a time when the USN is focused on cultivating a culture of sustainability in the current force -that we can expect to see an increase in productivity and fleet readiness.

The HYT chart (Table 1) depicts the HYT in years for each enlisted paygrade from the United States armed services. The highlighted section shows the differences in HYT for the E-5 Paygrade. The Air Force is the only branch of the military that allows an E-5 to reach retirement eligibility at 20 years while in an active-duty status.

Table 1. HYT Chart

Pay Grade	Navy (Active)	Navy (Reserve)	Marine Corps	Army	Air Force	Coast Guard
E-1	4	6	N/A	5	8	N/A
E-2	4	6	N/A	5	8	N/A
E-3	6	10	N/A	5	8	10
E-4	10	12	8	8	10	10
E-5	16	20	12	14	20	16
E-6	22	22	20	20	22	20
E-7	24	24	22	24	24	24
E-8	26	26	27	26	26	26
E-9	30	30	30	30	30	30

Adapted from United States Navy [USN] (2018); Department of the Air Force (2021); United States Coast Guard (2015); Commandant of the Marine Corps (2015); The Military Wallet (2021); Department of Defense (2021); USN (2019)

E. CONDUCT QUARTERLY DRUG/ALCOHOL MISCONDUCT TRAINING FOR ALL SAILORS E-5 AND BELOW

In the USN, there is a list of mandatory General Military Training (GMT) course that must be completed by all military personnel. The mandatory trainings currently include SAPR Awareness, Cyber Awareness Challenge, Counterintelligence Awareness and Reporting, Records Management, Suicide Prevention, Anti-Terrorism Level One, And the Privacy Act (Chief of Naval Operations [CNO], 2021). In addition to the mandatory trainings, the Commanding Officer can assign certain GMTs at their discretion for the

command to complete. The list of CO Discretion GMT's are Center For Development Of Security Excellent Insider Threat Course, Combat Trafficking In Persons, Domestic Violence Prevention and Reporting, Energy Policy, Equal Opportunity/Harassment and Resolution Options, Operational Risk Management, Operations Security, Personal Financial Management, Sexual Health & Responsibility, Traumatic Brain Injury, and Tactical Combat Casualty Care (CNO, 2021). These discretionary topics are all provide a benefit to the Sailors, however, none of these topics correlate to categories relating to high numbers of UPLs. Although the Culture of Excellence Oversight Committee reviewed the programs and reduced the number of mandatory GMTs that commands must complete, we believe it would be best to re-incorporate certain topics. Based on the increased numbers of E5 and below who became UPLs due to Drug or Alcohol misconduct, we recommend that Alcohol, Drugs and Tobacco Awareness training be revised as a more interactive experience, requiring face-to-face training and be re-integrated as a mandatory Military training for this core group.

F. PROVIDING A MENTAL HEALTH REPRESENTATIVE (THERAPIST) TO EACH SEA GOING COMMAND

Our final recommendation is to expedite the provision of permanent mental health representatives to every sea going command while import and underway. The USN has two sources of mental health leaders that can be used onboard warships while out to sea: USN Chaplains and Deployed Resiliency Counselor. Currently, the USN has a Chaplain Corps that services the Navy's Active and Reserves components. On most USN ships, Chaplains are a permanent part of the warship's crew and can be accessed by the crew easily. On DDGs, however, that is not the case. During the Basic Phase, Advanced Phase and Deployment Phase of the OFRP, Chaplains are distributed to DDGs as needed. However, as of January 2022, a new guidance has been provided as a response to this need. The Chaplain Corps generated a strategy to increase the command's budget and recruit chaplains who would be specifically billeted to DDGs (Ziezulewicz, 2022). This guidance, once implemented in 2025 will allow Chaplains to be embarked on all DDGs, allowing the crews continuous access to them throughout their workday. This would make it more likely that Sailors would meet with the Chaplains to deal with the stressors of their jobs and more.

Deployed Resiliency Counselors (DRC) are professionally licensed civilian clinicians who are stationed onboard larger ship platforms such as CVNs, LHDs and LHAs throughout the Navy. DRCs offer private, short term, non-medical counseling, and is at no additional cost for all Active duty service members while they are deployed onboard a ship or while their ship is homeported (Commander Naval Instillations Command [CNIC], 2013). The services they provide are the same as what is provided by Fleet and Family Support Centers, therefore making it familiar to service members who already use those services ashore. In addition, because DRC become a part of the ship's crew, they participate in shipboard drills, exercises, and are integrated into the ships schedule. This integration is what provides a common ground between the DRC and the Sailors. Therefore, we believe that providing a mental health representative on board each seagoing command, would be far more beneficial than the distribution method that is currently happening on DDGs.

VI. FUTURE RESEARCH OPTIONS

A. COST TO MAKE A SAILOR

The monetary value associated to the process of getting a Sailor through bootcamp, their schools and to a ship is something we have searched for in our research and have been unable to locate an answer. The NPS thesis "Street to Navy Enlisted Sailor Costing" depict the fixed and variable costs as well as the processes involved in transforming a civilian to a U.S. Navy Sailor (Bell et al., 2016). However, given the data constraints, they were unable to generate a number and much of the data used was outdated, even for their time. Through much of our own research, when different organizations were interviewed, they also were unaware of the total monetary value. We believe that understanding the cost to make a Sailor, would allow U.S. Navy leadership to understand the economic impacts of having an increasingly large number of UPLs.

B. UNPLANNED LOSSES AND THE RELATION TO THE COVID PANDEMIC

There are currently over 4,000 active-duty Sailors who have refused the vaccine (USN, n.d.b). As current guidance stands, the plan is for those Sailors to be discharged from active duty. These Sailors are being discharged before their EAOS, which will generate a DD-214 and should be listed and tracked as an UPL. The Navy has averaged approximately 1,000 UPLs per FY. FY22 is tracking for 5000+ UPLs if all COVID vaccine refusers are tracked.

C. EVALUATING CARRIER (CVN) UNPLANNED LOSSES AND COMPARING IT TO SURFOR

The data provided did not include CVN UPL data. Being the largest ship in the fleet, we expect the UPLs to be much greater than the LHDs and LHAs. CVN data regarding UPLs reside with the Naval Air Forces Command. We believe it would be beneficial to have this information included in future data analysis regarding UPLs because this would allow future analysts to compare CVNs to the larger surface ships such as LHDs and LHAs considering they have many of the same resources available. It would also be

beneficial to see if an increase in mental health related UPLs is evident on CVNs, as this would be indicative of a problem unrelated to resources available and quality of life, as CVNs have DRCs available and have one of the larger MWR programs dedicated to quality of life.

APPENDIX A. PIVOT TABLE 1: UPL BY AOR, GENDER, AND RANK

Sum of Data	Column Labels				
Row Labels	FY 2019	FY 2020	FY 2021	FY 2022	Grand Total
CNSL	**513**	**584**	**756**	**68**	**1921**
FEMALE					
E-1	10	9	9	2	30
E-2	17	23	16	4	60
E-3	33	33	55	6	127
E-4	23	24	49	5	101
E-5	13	17	16	3	49
E-6	1	4	3		8
E-7		3	1		4
E-8	1				1
MALE					
E-1	64	76	54	5	199
E-2	107	110	139	8	364
E-3	120	134	180	17	451
E-4	82	94	130	12	318
E-5	31	31	70	5	137
E-6	5	8	16		29
E-7	4	13	15	1	33
E-8	1	5	3		9
E-9	1				1
CNSP	**556**	**800**	**796**	**69**	**2221**
FEMALE					
E-1	5	8	6		19
E-2	23	21	23	2	69
E-3	37	55	49	6	147
E-4	27	33	56	3	119
E-5	13	20	22	1	56
E-6	3	4	2		9
E-7	1		1		2
MALE					
E-1	77	83	60	6	226
E-2	119	158	142	9	428
E-3	117	208	223	24	572
E-4	82	132	130	14	358
E-5	34	58	68	4	164
E-6	10	9	9		28
E-7	6	11	4		21
E-8	2				2
E-9			1		1

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APPENDIX B. PIVOT TABLE 2: UPL BY AOR, GENDER, AND LOSS CODE

Sum of Data	Column Labels				
Row Labels	FY 2019	FY 2020	FY 2021	FY 2022	Grand Total
CNSL	**12.39%**	**14.10%**	**18.25%**	**1.64%**	**46.38%**
FEMALE					
Other Medical or Disability	1.50%	1.59%	2.22%	0.19%	5.50%
Drug Abuse	0.31%	0.48%	0.75%	0.17%	1.71%
Serious Offense	0.14%	0.17%	0.24%	0.07%	0.63%
Misconduct	0.24%	0.22%	0.10%	0.00%	0.56%
Parenthood	0.17%	0.07%	0.10%	0.00%	0.34%
Alcohol Abuse	0.00%	0.10%	0.07%	0.00%	0.17%
Death on Active Duty	0.00%	0.05%	0.05%	0.00%	0.10%
Hardship	0.00%	0.02%	0.05%	0.02%	0.10%
Entry Level Performance	0.00%	0.02%	0.00%	0.00%	0.02%
Pregnancy	0.00%	0.00%	0.00%	0.02%	0.02%
Fraud / Erroneous Entry	0.00%	0.00%	0.02%	0.00%	0.02%
Other Attrite	0.00%	0.00%	0.00%	0.00%	0.00%
MALE					
Other Medical or Disability	2.63%	3.26%	6.04%	0.58%	12.51%
Drug Abuse	2.49%	3.69%	3.94%	0.24%	10.36%
Misconduct	2.66%	2.12%	1.91%	0.19%	6.88%
Serious Offense	1.23%	1.69%	1.76%	0.12%	4.80%
Alcohol Abuse	0.56%	0.19%	0.27%	0.00%	1.01%
Death on Active Duty	0.14%	0.24%	0.46%	0.02%	0.87%
Other Attrite	0.10%	0.05%	0.07%	0.00%	0.22%
Hardship	0.10%	0.02%	0.07%	0.00%	0.19%
Fraud / Erroneous Entry	0.05%	0.02%	0.10%	0.00%	0.17%
Entry Level Performance	0.07%	0.02%	0.00%	0.00%	0.10%
Performance	0.00%	0.05%	0.02%	0.00%	0.07%
Parenthood	0.00%	0.00%	0.02%	0.00%	0.02%
CNSP	**13.42%**	**19.31%**	**19.22%**	**1.67%**	**53.62%**
FEMALE					
Other Medical or Disability	1.69%	1.93%	2.56%	0.22%	6.40%
Drug Abuse	0.31%	0.82%	0.48%	0.05%	1.67%
Misconduct	0.31%	0.27%	0.22%	0.02%	0.82%
Serious Offense	0.05%	0.19%	0.19%	0.00%	0.43%
Parenthood	0.10%	0.07%	0.24%	0.00%	0.41%
Alcohol Abuse	0.07%	0.05%	0.07%	0.00%	0.19%
Hardship	0.07%	0.00%	0.05%	0.00%	0.12%
Death on Active Duty	0.02%	0.07%	0.00%	0.00%	0.10%
Other Attrite	0.00%	0.00%	0.02%	0.00%	0.02%
MALE					
Other Medical or Disability	3.43%	4.66%	5.72%	0.41%	14.22%
Drug Abuse	2.90%	5.48%	4.56%	0.48%	13.42%
Misconduct	2.56%	2.95%	2.54%	0.12%	8.16%
Serious Offense	1.18%	1.64%	1.83%	0.22%	4.88%
Alcohol Abuse	0.36%	0.46%	0.34%	0.05%	1.21%
Death on Active Duty	0.19%	0.43%	0.22%	0.02%	0.87%
Hardship	0.07%	0.07%	0.14%	0.07%	0.36%
Other Attrite	0.02%	0.17%	0.00%	0.00%	0.19%
Performance	0.05%	0.05%	0.00%	0.00%	0.10%
Parenthood	0.02%	0.00%	0.02%	0.00%	0.05%

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APPENDIX C. COMMANDS INCLUDED IN DATA

ASSAULT CRAFT UNIT 2
ASSAULT CRAFT UNIT 2 SHORE C
ASSAULT CRAFT UNIT 4
ASSAULT CRAFT UNIT 4 SHORE DET
BEACHMASTER UNIT 2
BEACHMASTER UNIT 2 SHORE COMD
CG 52 BUNKER HILL
CG 53 MOBILE BAY
CG 54 ANTIETAM
CG 55 LEYTE GULF
CG 56 SAN JACINTO
CG 57 LAKE CHAMPLAIN
CG 58 PHILIPPINE SEA
CG 59 PRINCETON
CG 60 NORMANDY
CG 61 MONTEREY
CG 62 CHANCELLORSVILLE
CG 63 COWPENS
CG 64 GETTYSBURG
CG 65 CHOSIN
CG 67 SHILOH
CG 69 VICKSBURG
CG 70 LAKE ERIE
CG 71 CAPE ST GEORGE
CG 72 VELLA GULF
CG 73 PORT ROYAL
CNSL FDNF TRAINING DET
CNSL MINISTRY CENTER NORFOLK
COMAFLOATRAGRU MAYPORT FL
COMAFLOATRAGRU NORFOLK
COMCARSTRIKEGRU EIGHT
COMCARSTRIKEGRU TEN
COMCARSTRIKEGRU TEN
COMCARSTRIKGRU FOUR
COMCARSTRIKGRU FOUR OPFOR

COMDESRON 2
COMDESRON 26
COMLCSRON ONE SAN DIEGO CA
COMLCSRON TWO MAYPORT FL
COMLCSRON TWO SEA DUTY
COMLCSRON TWO TRAINING
COMMINE DIV TWELVE
COMNAVBEACHGRU 1
COMNAVBEACHGRU 2
COMNAVSURFGRU MIDPAC
COMNAVSURFLANT
COMNAVSURFPAC
COMNAVSURFRON FIVE
COMNAVSURFRON FOURTEEN
COMNAVSURFWARFAREDEVCEN
COMPHIBRON 1
COMPHIBRON 11
COMPHIBRON 6
COMSURFACEDIV TWO ONE
DDG 100 KIDD
DDG 1000 ZUMWALT
DDG 1001 MICHAEL MONSOOR
DDG 1002 PCD SAN DIEGO
DDG 101 GRIDLEY
DDG 102 SAMPSON
DDG 103 TRUXTUN
DDG 104 STERETT
DDG 105 DEWEY
DDG 106 STOCKDALE
DDG 107 GRAVELY
DDG 108 WAYNE E MEYER
DDG 109 JASON DUNHAM
DDG 110 WILLIAM P LAWRENCE
DDG 111 SPRUANCE
DDG 112 MICHAEL MURPHY
DDG 113 JOHN FINN
DDG 114 RALPH JOHNSON
DDG 115 RAFAEL PERALTA
DDG 116 THOMAS HUDNER

DDG 117 PAUL IGNATIUS
DDG 119 DELBERT D BLACK
DDG 121 PCD SAN DIEGO
DDG 131 PCD SAN DIEGO
DDG 51 ARLEIGH BURKE
DDG 52 BARRY
DDG 53 JOHN PAUL JONES
DDG 55 STOUT
DDG 56 JOHN S MCCAIN
DDG 57 MITSCHER
DDG 58 LABOON
DDG 59 RUSSELL
DDG 60 PAUL HAMILTON
DDG 61 RAMAGE
DDG 62 FITZGERALD
DDG 63 STETHEM
DDG 64 CARNEY
DDG 65 BENFOLD
DDG 66 GONZALEZ
DDG 67 COLE
DDG 68 THE SULLIVANS
DDG 69 MILIUS
DDG 70 HOPPER
DDG 71 ROSS
DDG 72 MAHAN
DDG 73 DECATUR
DDG 74 MCFAUL
DDG 75 DONALD COOK
DDG 76 HIGGINS
DDG 77 O KANE
DDG 78 PORTER
DDG 79 OSCAR AUSTIN
DDG 80 ROOSEVELT
DDG 81 S WINSTON CHURCHILL
DDG 82 LASSEN
DDG 83 HOWARD
DDG 84 BULKELEY
DDG 85 MCCAMPBELL
DDG 86 SHOUP
DDG 87 MASON
DDG 88 PREBLE
DDG 89 MUSTIN
DDG 90 CHAFEE
DDG 91 PINCKNEY

DDG 92 MOMSEN
DDG 93 CHUNG HOON
DDG 94 NITZE
DDG 95 JAMES E WILLIAMS
DDG 95 JAMES E WILLIAMS
DDG 96 BAINBRIDGE
DDG 97 HALSEY
DDG 98 FORREST SHERMAN
DDG 99 FARRAGUT
ESB 5 BLUE MILCREW
ESB3 GOLDMILCREW
ESB4 BLUE MILCREW
ESB4 GOLD MILCREW
EWTGPAC CORONADO CA
LCC 19 BLUE RIDGE
LCC 20 USS MT WHITNEY
LCS CREW 101
LCS CREW 102
LCS CREW 106
LCS CREW 111
LCS CREW 118
LCS CREW 203
LCS CREW 204
LCS CREW 205 PCD SAN DIEGO
LCS CREW 211 PCD SAN DIEGO
LCS CREW 213
LCS CREW 214
LCS CREW 216
LHA 6 AMERICA
LHA 7 TRIPOLI
LHD 1 WASP
LHD 2 ESSEX
LHD 3 KEARSARGE
LHD 4 BOXER
LHD 5 BATAAN
LHD 6 BONHOMME RICHARD
LHD 6 BONHOMME RICHARD
LHD 7 IWO JIMA
LHD 8 MAKIN ISLAND
LPD 17 SAN ANTONIO
LPD 18 NEW ORLEANS
LPD 19 MESA VERDE
LPD 20 GREEN BAY
LPD 21 NEW YORK

LPD 22 SAN DIEGO
LPD 23 ANCHORAGE
LPD 24 ARLINGTON
LPD 25 SOMERSET
LPD 26 JOHN P MURTHA
LPD 27 PORTLAND
LSD 41 WHIDBEY ISLAND
LSD 42 GERMANTOWN
LSD 44 GUNSTON HALL
LSD 45 COMSTOCK
LSD 46 TORTUGA
LSD 47 RUSHMORE
LSD 48 ASHLAND
LSD 49 HARPERS FERRY
LSD 50 CARTER HALL
LSD 51 OAKHILL
LSD 52 PEARL HARBOR
MCM 10 WARRIOR
MCM 11 GLADIATOR
MCM 13 DEXTROUS
MCM 3 SENTRY

MCM 6 DEVASTATOR
MCM 9 PIONEER
NAVAL BEACH UNIT SEVEN
PC 10 FIREBOLT
PC 12 THUNDERBOLT
PC 3 HURRICANE
PC 4 MONSOON
PC 6 SIROCCO
PC 7 SQUALL
PHIB CB 1 SEADU COMP
PHIB CB 2
PHIB CB 2 SEADU COMP
SURFMINEWDC DET POINT LOMA CA
TACRON 11
TACRON 22
US AAMDS POLAND DET DAM NECK
US AAMDS ROMANIA DET DAM NECK

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