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STUDY OF DUAL-SERVICE OFFICER RETENTION IN THE U.S. NAVY AND U.S. MARINE CORPS

by

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Since the all-volunteer force began, the number of dual-service marriages has risen. Retention of diverse, skilled personnel is critical to national security. This study examines retention rates of Navy and Marine Corps officers by focusing on marital status and identifies themes in dual-service experiences to explain retention behavior. Quantitative multivariate data analysis of 27,126 officers commissioned from 1998 to 2003 is used to identify factors such as marital status, gender, race, and commissioning source to explain retention outcomes. Regression analyses indicate that dual-service officers have higher retention rates than their single counterparts across time. However, compared with officers married to civilians, dual-service officers tend to retain at similar rates early in their careers but at lower rates after 10 years of service. Focus group discussions reveal that navigating a rigid career path while maintaining a family in a system with varying support and flexibility can strongly influence a dual-service officer's decision to remain in military service. Policy changes addressing concerns regarding colocation and more flexible career paths are an ongoing approach to retaining dual-service officers. Future research should be expanded to include a larger population representing all occupational fields, ranks, education, and parental status.

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STUDY OF DUAL-SERVICE OFFICER RETENTION IN THE U.S. NAVY AND U.S. MARINE CORPS

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LIST OF ACRONYMS AND ABBREVIATIONS

BAH	basic allowance for housing
CDC	child development center
CNA	Center for Naval Analyses
CO	commanding officer
DLA	dislocation allowance
DMDC	Defense Manpower Data Center
DoD	Department of Defense
DoN	Department of the Navy
FCC	family child care
FSA	Family Separation Allowance
FY	fiscal year
MLDC	Military Leadership Diversity Commission
MSR	minimum service requirement
MOS	military occupational specialty
NPS	Naval Postgraduate School
PCS	permanent change of station
QDAS	qualitative data analysis software
USN	United States Navy
USMC	United States Marine Corps
YOS	years of service

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I. INTRODUCTION

> Their quality will matter as never before… Our people will require a multitude of skills. The missions of 2020 will demand Service members who can create and then take advantage of intellectual and technological innovations.
>
> —Chairman of the Joint Chiefs of Staff (2000, p. 13)
> on the people comprising the Joint Force

A. BACKGROUND

The nature of threats to national security and the approaches to mitigate those threats has changed significantly over the past 45 years. A multiservice report, *A Cooperative Strategy for 21st Century Seapower* (2007), describes potential threats to U.S. and global security as major power wars, regional conflicts, terrorism, lawlessness, and natural disasters. It states that globalization is shaping conflicts that are of a hybrid nature tactically, and that technology, information, and mass communications will add to future uncertainty. With maritime seapower, the Department of the Navy (DoN) plays an especially critical role in protecting not only the United States but also the global economy. Mission-tailored packages to respond to threats may include security forces, mobile training teams, construction battalions, health services, law enforcement, and civil affairs units, and intelligence and information assurance are critical capabilities (U.S. Navy, 2007). Subsequently, the skills and efficiency of service members are more important than ever.

Joint Vision 2020 acknowledges that the importance of recruiting and retaining quality members is higher than ever and that the number of members with dependents will require family-oriented support programs (Chairman of the Joint Chiefs of Staff, 2000). *Marine Corps Vision & Strategy 2025* (U.S. Marine Corps [USMC], 2008) acknowledges the same, stating that the Marine Corps must be adaptable as individuals and as an institution and must focus on the individual Marine, who is the most important warfighting asset. Paramount to the mission is the "recruitment, training, professional

education, and retention of high-quality, disciplined warriors" (USMC, 2008, p. 14). It also states that the Marine Corps is committed to taking care of Marines and their families as their needs and wants change, and that housing, schools, and family support are reasonable expectations.

Also significant over the past 45 years is that America has experienced arguably some of the most significant societal changes in its history, including a substantial increase of women in the workforce. According to the U.S. Department of Labor (2004), between 1970 and 2002, the percentage of women participating in the labor force increased from 43 percent to 60 percent. In the same period, the military experienced a conversion to and sustainment of an all-volunteer force, eliminating a 2 percent cap on women serving in the military as a percentage of the force and no longer discouraging or prohibiting service members from marrying. The natural result has been an increase of dual-service marriages, where both spouses serve in the military. Table 1 highlights the number of dual-service members in relation to other family compositions among service members from 2000 to 2011.

Table 1. Number and Percentage of Total Force Personnel by Family Status, 2000–2011. Source: DoD (2012).

	2000*		2005		2010		2011	
	N	%	N	%	N	%	N	%
Single, no children	917,764	41.0%	880,304	40.1%	903,615	39.9%	901,264	39.9%
Single, with children	132,518	5.9%	141,982	6.5%	155,143	6.8%	154,934	6.9%
Married to Civilian, no children	371,096	16.6%	301,205	13.7%	306,803	13.5%	305,204	13.5%
Married to Civilian, with children	718,443	32.1%	754,549	34.4%	784,663	34.6%	784,073	34.7%
Dual-military Marriage, no children	54,015	2.4%	65,710	3.0%	63,209	2.8%	61,562	2.7%
Dual-military Marriage, with children	42,060	1.9%	50,602	2.3%	53,256	2.3%	52,322	2.3%
Total	**2,235,896**	**100.0%**	**2,194,352**	**100.0%**	**2,266,689**	**100.0%**	**2,259,359**	**100.0%**

* An additional 24 cases were not reported in 2000.
Note: Single includes annulled, divorced, and widowed. Children include minor dependents age 20 or younger or dependents age 22 and younger enrolled as full-time students.
Note: Percentages may not total to 100 due to rounding.

Suter's (1979) study of dual-career Navy families, including dual-service families, was one of the first of its kind to examine the issues and attitudes of this emerging population. In hindsight it was forward thinking for the time, recognizing that

"little attention has been given to the ability of Naval officers to integrate family life and career....Continued demands for long hours, frequent family separations and transfers may be too expensive in manpower losses if officers view these realities as dilemmas and opt out" (Suter, 1979, p.20). Suter also pointed to the expected continued growth of the number of women in the military and subsequently dual-service families, which continues today. In 1979, Suter indicated that women comprised 6.5 percent of the Navy's officer strength. By 2012, they made up 16.3 percent (Department of Defense, Office of Deputy Under Secretary of Defense [Military Community & Family Policy], 2013). Table 2 displays the percentage of active duty officers in 2011 in the Navy and Marine Corps in a dual-service marriage, which was 5.2 and 4.1, respectively.

Table 2. Number and Percentage of Active Duty Officers and Enlisted Members in a Dual-Service Marriage in 2011, by Service Branch. Source: DoD (2012).

	Army		Navy		Marine Corps		Air Force		Total DoD	
	N	%	N	%	N	%	N	%	N	%
Officers	6,353	6.5%	2,757	5.2%	894	4.1%	6,764	10.3%	**16,768**	**7.0%**
Enlisted	23,245	5.0%	13,606	5.1%	7,073	3.9%	31,224	11.9%	**75,148**	**6.4%**
Total	**29,598**	**5.3%**	**16,363**	**5.1%**	**7,967**	**4.0%**	**37,988**	**11.6%**	**91,916**	**6.5%**

The percentage of women in the workforce and the military force is continuing to increase. The 1990s saw women in the military being allowed to fly in combat and to serve on combat surface ships. In December 2015, a Secretary of Defense Memorandum of Guidance was provided for the services to begin executing their approved plans to open all military career fields, including all combat roles, to women starting in January 2016 and no later than April 1, 2016 (Carter, 2015). Just a few years earlier in 2011, gay personnel were permitted to serve openly upon the repeal of the Don't Ask, Don't Tell policy, and they now receive federal benefits and marriage recognition. These factors combined indicate that the trend of dual-service marriages will continue to increase. Research also indicates women have lower cumulative retention rates than men (Military Leadership Diversity Commission [MLDC], 2010), and that dual-service members may retain at different rates than their peers (Long, 2008), which vary by gender (Brummond,

2015; Mundell, 2016). Also indicated are persistent challenges faced by dual-service personnel, not limited to a compromise of career options, career intention decisions, colocation, family planning, child care issues, and the synchronization of deployments and changes of duty stations that are explored in this thesis. A significantly higher percentage of women in the military are in a dual-service marriage compared to their male counterparts (Department of Defense [DoD], 2012). Given these factors, and because retention is critical to maintaining an all-volunteer force, we examine retention behavior and attitudes of dual-service officers.

B. RESEARCH QUESTIONS

This thesis attempts to answer questions related to retention in the military for service members in a dual-service marriage:

1. Do officers in a dual-service marriage have different retention rates than officers who are single or married to a civilian? If so, what factors predict these differences?

We will address these questions by utilizing a multivariate analysis approach and a large individual level data set on officers in the U.S. Navy and U.S. Marine Corps.

2. Do female officers in a dual-service marriage have different retention rates than male officers in a dual-service marriage? If so, what factors predict these differences?

We will address these questions by using a focus group approach to mitigate the small sample size of female officers in a dual-service marriage. The focus groups include resident students at the Naval Postgraduate School (NPS) who are in a dual-service marriage. The focus group findings are rich and complement the quantitative analysis approach findings with additional insights on retention issues.

C. HYPOTHESES

We expect service members in a dual-service marriage to have lower retention rates than single service members or members with a civilian spouse because the demands of one military career in a family are a challenge and two are even more so. Additionally, family planning and child care issues may be more challenging for dual-service families than for those of a service member married to a civilian or even single-parent service members who may have child care resources that lie with the other parent.

Furthermore, we expect female officers in a dual-service marriage to have lower retention rates than their male counterparts because women are more likely than men are to be in a dual-service family. If women have dependent children, they are also likely to bear most of the child-rearing responsibilities, which can put additional pressure on work-life balance when compared with men in a dual-service marriage.

D. PURPOSE AND RELEVANCE

The U.S. Navy and Marine Corps are separate organizations with distinctly different structures, cultures, and missions, yet they share both a maritime partnership and mutually applicable policies of the DoN. Furthermore, while some research exists for dual-service members in the Navy, no similar research was readily identified for the same population in the Marine Corps. This study compares the retention rates of active-duty officers in the Navy and Marine Corps whose spouses are in the military (thus, a "dual-service marriage" or part of a "dual-service couple") with those of officers who are single or married to a civilian. The retention rate of female officers in a dual-service marriage is also analyzed and compared with that of their male counterparts.

Because of the expeditionary and maritime nature of the Navy and Marine Corps, "sister services" who share the DoN as a common higher headquarters, both warrant examination in this study. However, differences in mission, demographic composition, and policy implementation procedures necessitate further examination of each service separately to accurately identify trends and potential policy implications.

A primary benefit of this study is its focus on a small but relevant group of officers who may have additional demands placed upon them because they are married to

another service member. The military and the family are both considered "greedy institutions" in the sense that they place great time and energy demands on individuals, and families are particularly greedy of women (Segal, 1986). These demands are magnified for couples when both members are serving in the military, and perhaps even more so when the military is heavily engaged in war (Bethea, 2007).

This study may benefit the Navy and Marine Corps in their goal to achieve an environment that encourages recruitment, training, retention, and promotion of talented, diverse service members. Recognizing the issues around the work-life balance for their officers can inform policy change that aims to attract and retain talent.

E. DESIGN AND METHODOLOGY OVERVIEW

As the numbers of dual-service couples have increased, research on this population and its retention has become more prevalent. Past research on Navy dual-service couples centered primarily on a specific community or designator, such as surface warfare or aviation, and it was often qualitative in approach. In our literature review, we found no research on Marine Corps dual-service couples. Several dual-service studies and retention studies on the Navy and the other services provided insight and informed our research design and methodology. Specifically, three studies informed our approach.

In 2008, Long studied retention of dual-service U.S. Air Force officers. Unique at the time and still today was her use of both quantitative and qualitative methods, which inspired us to develop a mixed-method framework. In 2010, Smith used grounded theory in dissertation research to analyze interviews of dual-service Navy couples. His results highlighted challenges of this population in detail and as described in their own words and yielded a model of the strategic adaptations they use to address these issues. In 2013, Kraus, Parcell, Reese, and Shuford conducted a Center for Naval Analyses (CNA) study using quantitative multivariate regression analysis to examine officer diversity and the retention of Navy women in the surface warfare and aviation communities. Though not specific to dual-service officers, this research informed the framework for our quantitative analysis. These studies are discussed in detail in the literature review in

Chapter II. This thesis takes both a quantitative and qualitative approach to studying factors affecting retention for dual-service couples in the DoN.

1. Quantitative Approach

In our quantitative analysis, we use individual data from the Defense Manpower Data Center (DMDC) of all DoN officer personnel commissioned between fiscal years (FYs) 1998 and 2003 and observed annually until 10 years of service, or until separation. We use multivariate analysis to test whether officer retention rates among officers who are married to another active duty service member differ from retention rates of officers who are single or married to a civilian. In the quantitative analysis, we also take into account how the family's dependent children status correlates to the retention behavior of service members.

2. Qualitative Approach

To go deeper into factors that affect work-life balance and retention for dual service couples, we conducted focus groups of dual-service members who were resident students at NPS in December 2013. The purpose of incorporating a qualitative approach is twofold. First, it aims to bring forth explanatory factors that may be predictors of retention in the quantitative analysis results. The secondary aim is to complement the findings of the large, off-the-shelf data, quantitative approach by identifying additional insights, challenges and potential solutions that may be facilitated through personnel policy management.

F. ORGANIZATION

This study includes five chapters. Chapter I defines the background of this study, identifies the research questions and hypotheses, states the purpose and relevance, and provides an overview of the methodology used in the research. Chapter II presents background information on the issues military families face, including dual-career and dual-service families and gender differences, and provides a review and critique of studies informing our research approach. Chapter III describes the quantitative analysis, details of the variables, models, descriptive statistics, and results. Chapter IV describes

the qualitative analysis including focus-group selection, protocol, participant profiles, and a discussion of findings. Chapter V provides a summary of the study and results, presents conclusions, and offers recommendations.

II. BACKGROUND AND LITERATURE REVIEW

A. INTRODUCTION

To create a framework for analyzing retention of dual-service members, we review related literature to identify factors unique to the dual-service population that may influence service members' attitudes and decisions toward continued service. These factors include attributes, benefits, challenges, experiences, and trends.

Dual-service couples are forms of military families that share similar experiences. Therefore, this review begins by examining statistics on marital status and family composition, and outlines issues common to military families in general. Dual-service couples are also a subset of dual-career couples, which face similar challenges, such as competing goals and milestones; therefore, we briefly discuss one key dual-career study focused on military personnel, though results from dual-career research is included throughout this section. Next, we provide an overview of several issues pertaining to dual-service couples by topic. Furthermore, gender studies and reports often mention dual-service marriage; therefore, we briefly highlight key gender differences in the military. While the authors acknowledge that the repeal of the Don't Ask Don't Tell legislation now allows for same-sex marriage in the DoD, for the purpose of this study, we assume that the dual- service couple contains at least one woman; gender differences are therefore considered. Finally, we provide a review and critique of previous key studies and their methodologies, some of which guide the development of this study and its methodology. Specifically included are studies on dual-service or family composition, or on retention, which are grouped by quantitative, qualitative, or mixed method approaches.

B. MILITARY FAMILIES

1. Composition and Statistics

The makeup of military families has evolved significantly with the conversion to an all-voluntary force and coupled with sociological changes such as an increase in the number of women in the workforce. In 1960, approximately 30 percent of military

personnel were married (Zech, as cited in Striffler, 1982). By 2012, 56.1 percent of military personnel were married. This number varies by branch and gender (see Figure 1). The number of married officers increased to 69.5 percent in 2012, up from 69.1 percent in 2011 (DoD, 2013; see Figure 2). Of note, many civilian spouses of both male and female military members are veterans themselves (Segal & Segal, 2006).

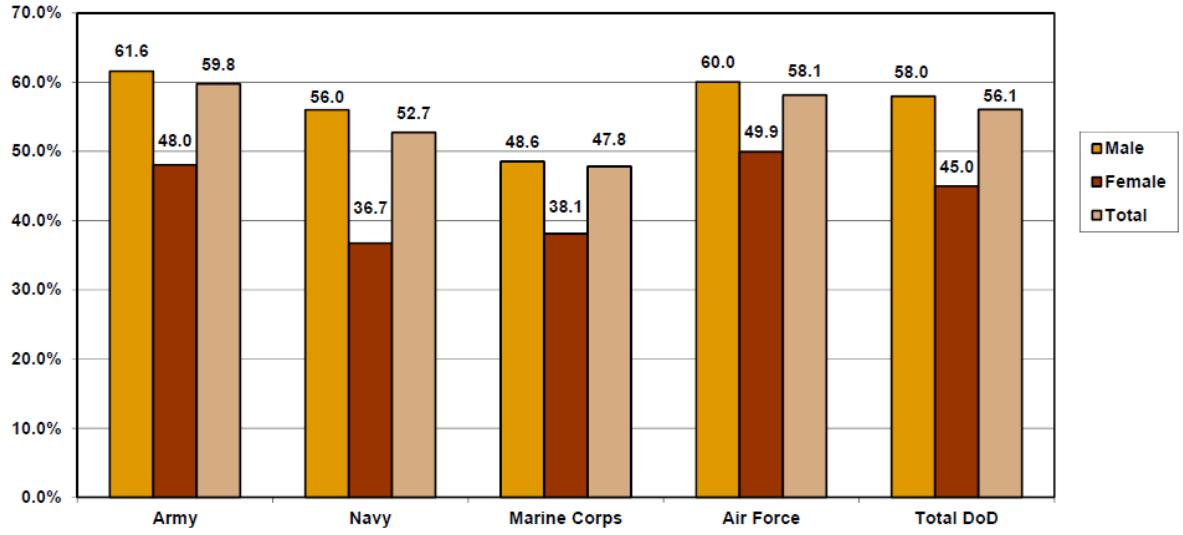
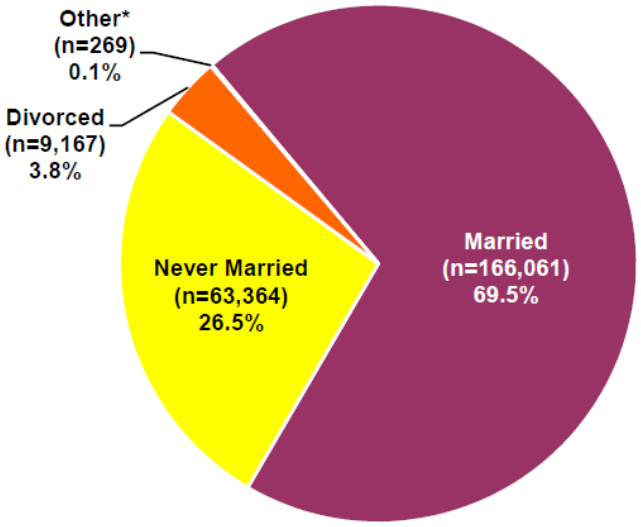


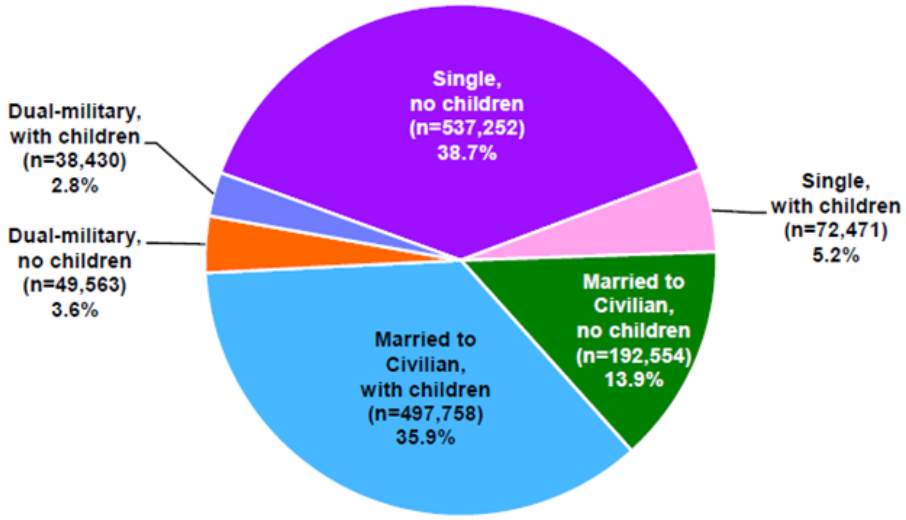
Figure 1. Percentage of Married Active Duty Members in 2012, by Service Branch and Gender. Source: DoD (2013).



(N=238,862)

Figure 2. Marital Status of Active Duty Officers in 2012. Source: DoD (2013).

Figure 3 shows the general distribution of family composition types in the DoD. The numbers of single-parent and dual-service families have increased over time.



(N=1,338,028)

Figure 3. Active Duty Family Status in 2012. Source: DoD (2013).

2. Benefits and Challenges

Benefits to military families include esteem from society, financial and nonfinancial compensation, adventure, and opportunities for travel. Despite some family-friendly policy changes in the military over time and the continued increase in dual-service couples, research indicates the issues faced by these couples are similar to those faced 40 years ago. These challenges are not limited to compromise of career options, career intention choices, colocation, family planning, child care issues, and synchronization of deployments and changes of stations. Research also indicates women have lower cumulative retention rates than men, and dual-service members have lower retention over time than their peers (Segal, 1986).

Regardless of family composition, service members and their families typically share specific experiences to some degree over time. These experiences include geographic mobility, residence in foreign countries, separation from family, normative pressures on family members, and the service member's risk of injury or death. Another significant challenge central to the military/family relationship is that both the military and the family are regarded as "greedy institutions" vying for the service member's time, energy, and loyalty (Segal, 1986).

a. Economic Costs and Tied Movers

Military families face economic challenges that civilian families do not; overall, military families make less money than civilian families. Military wives and military husbands (civilian spouses married to a service member) are considered "tied movers" because they move when their military spouses change jobs, often resulting in broken employment. Military spouses' incomes account for approximately 50 percent of the lower family earnings in military families. Both military wives' and military husbands' incomes are affected; military husbands earn 30 percent less than their civilian counterparts, and military wives earn 50 percent less than their counterparts (Little & Hisnanick, 2007). Figure 4 illustrates these earnings gaps.

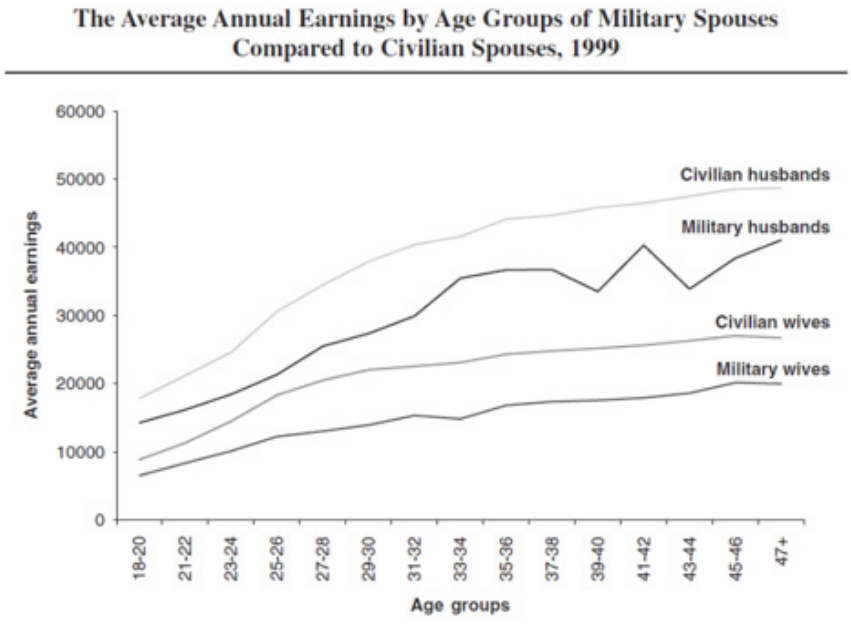


Figure 4. Average Annual Earnings by Age Groups of Military Spouses Compared to Civilian Spouses, 1999. Source: Little and Hisnanick (2007).

In 1979, Suter identified that a military spouse with a career is more likely to be satisfied than a spouse with a job, while no satisfaction differences were found between dual-career service members and one-career/one-job service members (Suter, 1979). Suter speculates this may be because, although the majority of spouses with a career or job have a four-year degree, some may be underemployed for their education level (Suter 1979, pp. 94–95). Her research also revealed that females were more likely to report they would subordinate their career to either their spouse's career or the family.

A 2002 study on employment of military wives revealed they were less likely to work than their civilian counterparts, worked fewer weeks per year, were less likely to work full time, and had lower weekly or hourly wages than their civilian counterparts. Regarding education level, a military wife with a college education was less likely to work full time and worked fewer weeks per year than a military wife with a high school education. A military wife's likelihood of working also declines with age. The research suggests frequent moves may cause spouses to conduct shorter job searches and seek flexible jobs they can train for quickly (Hosek, Asch, Mattock, Fair, & Martin, 2002).

Possible contributing factors to lower earnings are that military families are more likely to move (and to move farther and more frequently than their civilian counterparts), the military spouse may take more responsibility for the move itself, and the deployments and rigid work schedule of the military member may hinder employment opportunities (Hosek et al., 2002). Having children is associated with an even further reduced labor supply of military wives and husbands (Hosek et al., 2002; Little & Hisnanick, 2007). Similar patterns were revealed in 2010, with military wives of service members across all military branches far more likely to be underemployed by educational mismatches and less likely to be employed full time than civilian spouses were when demographics were equal (Lim & Schulker, 2010).

b. Relocation Challenges

Relocation to a new country or a new geographical area within the United States can require learning not just the local area and its resources but also the culture, language or dialect, and social norms (Segal, 1986). Houppert (2005) likens being in a military family to being a chameleon; family members must adapt to the world both inside and outside the military community. Houppert claims this challenge falls more on the family members than the military member, who is established in the culture of the military itself. Moving also requires developing a new network every two to three years (Smith & Segal, 2013). Most military families do not live near relatives or longtime friends, so the families must establish new support and social relationships. They must also find new healthcare and child care providers. Children may be particularly affected by moves; changing schools may break curriculum continuity and disrupt academic education. New friendships must be made. Integration into peer groups and extracurricular activities is important to child and adolescent development, and moving can make involvement difficult (Segal, 1986).

c. Separations and Deployments

(1) Impact on Spouses and Relationships

Historically, members of the Navy and Marine Corps face more separations than other branches from deployments, temporary additional duty, training and field exercises,

or unaccompanied assignments. Separations can be beneficial in some ways, but are more often stressful and challenging. Communication decreases and opportunities to strengthen relationships (such as in new marriages) or being present for life events (such as a child's birth) are missed.

Contrary to intuition, with the exception of the Air Force, deployments while married either have no effect on or decrease the risk of marital dissolution (Karney & Crown, 2007). Navy and Marines Corps officers' marriages have even lower dissolution rates the longer the deployment lasts, though the benefit of longer deployment associated with lower divorce rates is smaller for women than for their male counterparts. Marriages of younger officers in the Navy and Marine Corps benefit from deployment even more. Having children also decreases chances of dissolution in relation to deployment, but again, the rate is not decreased for women as it is for men (Karney & Crown, 2007).

(2) Separation and Commitment

Commitment to one's job and service could also be affected by "greedy elements" of the military, the greediest being separation according to Brummond (2015). Brummond's results demonstrated that "the greed of separation had the strongest effect on service member commitment when separation was unexpected, as in the cases of having a deployment last longer than expected and spending many nights away from one's permanent duty station" (p. 65). However, the number of deployments on its own did not result in a lower career commitment. This supports earlier findings by Falk and Rogers (2011) that the number of deployments experienced was not a primary factor for officers exiting the military.

C. DUAL-CAREER FAMILIES

Our literature review identified findings that come from dual-career literature examining families where two heads of household have careers. While more research is now available specifically on dual-service members, many of the earlier studies starting in the 1970s focused on dual-career families, as they were a growing phenomenon in the United States. At the same time, dual-career military families increased as well, especially with the increase of women serving in the fledgling all-volunteer force. For the

purpose of this review, we focus primarily on dual-career studies where at least one spouse is a service member. Dual-service members or couples may not be the primary subject, but they are a subset, and in some cases are highlighted in the research as they share many common aspects of managing two careers in a military family. This section examines one such study.

Suter produced a key study of the emerging dual-career population in the military in 1979 "to provide descriptive data about the married Naval officer population and their attitudes toward the Navy, their families, and their career intentions" (Suter, 1979, p. 22). The methodology was two part. A statistical demographic analysis was conducted on survey responses from 459 randomly selected married service members. A follow-on survey completed by 55 members and 47 spouses in dual-career families examined five key areas: career intent, child care, military life satisfaction, spouse's career commitment, and career satisfaction—all of which could influence member retention decisions, budgeting, and policy. The survey population included some dual-service couples. A limitation of the study was it did not define the type of careers spouses had, leaving the definition of career wide open. This also meant that dual-service was not clearly broken out from the dual-career population as a subset.

Suter's (1979) study generated significant results and identified several challenging issues. It revealed that nearly half of married officers were in either a dual-career or dual-income, nontraditional marriage. The respondents' attitudes and needs differed from those of traditional single-income couples. One third of dual-career families experienced serious conflict, almost double that of one-career/one-job families, with the most significant problems being relocations, separations, overload, and child care. The difference in career intent between a single-income and a dual-career family was 88.8 and 76.5 percent, respectively.

Several demographic factors not limited to gender, rank, and family composition were associated with varied results. Men in dual-career situations felt they had more balance between work and family roles than men in one-career/one-job families, and a male's career took priority in 90 percent of double-income families. Additionally, dual-career families were more dissatisfied with the military career than the civilian career

(Suter, 1979). Designator groups, or occupational specialties, did not correlate with satisfaction. Junior officers were more likely to have dual-career lifestyles; senior officers were more satisfied and were more likely to belong to a single-income family.

Suter's (1979) study was an early look at dual-career couples in the military. It is frequently cited, and its methodology has been modeled since, such as by Henderson's 1981 study of dual-career Coast Guard officers and Hixenbaugh and Hixenbaugh's 1982 study of dual-service Navy officers. Since then, many other studies of military dual-career families have been conducted, and themes discovered in those studies are discussed throughout this thesis.

D. DUAL-SERVICE FAMILIES

Recently, studies such as Wagner's 2017 NPS thesis have identified interesting trends in the dual-service population. Wagner found higher 10-year retention rates of men in a dual-service marriage when compared with male officers married to civilians. It also found lower retention rates for female officers in a dual-service marriage when compared with retention rates of female officers married to civilians. While being in a dual-service is associated with an increase in retention rates for men, it is a retention penalty for women in a dual-service marriage. The performance outcomes (promotion rates to O4 and early promote recommendations) show a different picture than the retention outcomes for dual-service officers, indicating that many questions are still to be answered on this population. While every family is unique and has different needs, the challenges they face while in the military remain the same. Although dual-service families may face similar hardships to those that all military families face, they may be amplified by competing careers and schedules and balancing deployments. A review of research across the services shows several consistent, and some contrary, themes emerging for dual-service families.

1. Benefits and Challenges

a. Benefits to Dual-Service Couple

Dual-service couples receive both tangible and intangible benefits from their shared dedication to the service. Regarding the military way of life and opportunities, they are optimistic. Huser and Grant (1978) described mutual understanding of the nature and demands of each other's jobs as a benefit, while the Army found that having dual-service members of both genders who are better able to meet physical standards impacts individual readiness (Marshall-Mies, Seligson, & Martin, 2000). Female Army officers in a dual-service marriage reported more optimism about career, advancement opportunities, and job security for both them and their spouses than women in traditional marriages (Marshall-Mies et al., 2000). Mutual understanding and optimism may be in part why "pressure from family to get out" was the least common reason cited as the cause of dual-service Navy officers leaving the service (Hixenbaugh & Hixenbaugh, 1982).

Dual-service couples do not face the same issue of broken employment and lost wages that other dual-career families face. Both service members now also receive basic allowance for housing (BAH) per the Joint Travel Regulations (DoD, 2019), and family separation allowance (FSA) per the DoD Financial Management Regulations (DoD, 2017) when they are separated, benefits which were initially granted only to service members with civilian dependents (Hixenbaugh & Hixenbaugh, 1982). Dual-service couples also receive priority at child development centers (CDCs), which are subsidized. However, dual-service couples may incur expenses that other families do not, such as travel-related expenses, particularly when separations occur when they are stationed apart and must maintain two households.

b. Benefits to the Military

The military benefits from dual-service couples in readiness, retention, and cost savings. In Marshall-Mies et al.'s 2000 study, the authors found that dual-service officers more easily met physical standards, were less likely to report an impediment to short-notice deployment than members with civilian spouses, and were far less likely to report

family obligations as limiting deployability, factors that all enhance readiness. Dual-service officers were also more satisfied with the military way of life, financial compensation, and the military justice system (Marshall-Mies et al., 2000). Additionally, Leeds (1988) discovered that females in a dual-service marriage were more satisfied with military life than those not in a dual-service marriage and noted that satisfaction with military life is one indicator that correlates with future retention (Leeds, 1988).

With many service members having working spouses, the military can more easily collocate dual-service rather than dual-career or dual-income service members with civilian spouses (Segal, 1986). Moving two members from one household results in cost savings (Hixenbaugh & Hixenbaugh, 1982), as does subsidizing child care for fewer families when only one of two members, if any, claim dependents. Dual-service couples were found to be significantly less likely to have dependents than members with civilian spouses (Aldridge et al., 1997).

2. Marriage and Divorce

Marriage stability in dual-service couples differs by gender. From 1996 to 2005, before and during an increased operational tempo from conflicts in Afghanistan and Iraq, the marriage rate of active duty officers decreased by 4.6 percent for Navy officers and 6.4 percent for Marine officers but the number of officers in a dual-service marriage as a percentage of active duty officers increased. Divorce rates in the same period were virtually unchanged, with a 0.1 percent increase for naval officers and a 0.9 percent decrease for Marine officers.

The most stable married group is consistently a male service member married to a civilian female. Figure 5 shows that for women across time, there appears to be a minor beneficial effect of being in a dual-service marriage, which leads to a lower marital dissolution rate than for women married to civilians. For men in a dual-service marriage, the opposite is true. The cause of this phenomenon is unknown, and the same trend was seen in the enlisted population (Karney & Crown, 2007).

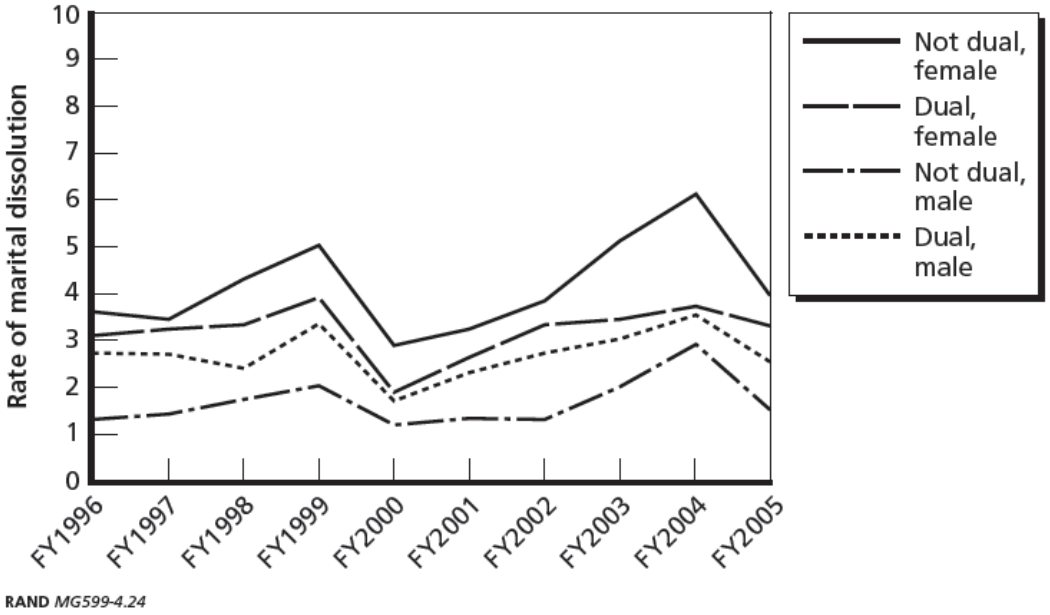


Figure 5. Rates of Marital Dissolution in Dual-Service Marriages and Marriages to Civilians, Active Officers, 1996–2005. Source: Karney and Crowne (2007).

The study conducted by Wagner (2017), used data from the DMDC on Navy officers commissioned from 1999 to 2003 and followed to at least 10 years of service. It found a significant increase in marriage rates over an officer's career, from 10.4 percent married at commissioning to 72 percent married at six years of service. Accordingly, this behavior indicates an aspiration to marry early in the career and to stay in the service after establishing a dual-service marriage (p. 34).

3. Separations

Dual-service couples may face more separations than members married to civilians. Additionally, dual-service members are typically under service obligations incurred from promotions, permanent changes of station, or training, so, unlike civilian spouses, service members cannot quit their jobs by giving two weeks' notice to avoid separation (Henderson, 1981). Even if eligible, resigning a commission is a lengthy process. Regarding length of geographic separation, 16.2 percent of dual-service spouses said that no separation was acceptable and 68.2 percent said they would accept

separations of one year or less. Leeds (1988) found that Navy officers are slightly more willing to accept frequent and longer separations than enlisted personnel; this could be an area of future research or perhaps a caution that the officer results are a conservative reflection of the issue.

A unique hardship dual-service couples experience is that planned rotation dates may conflict and result in lengthy separations, whereas civilians may have more control. "Separation from family" was the second most popular reason for leaving the service after the inability to be collocated (Hixenbaugh & Hixenbaugh, 1982). Separations from each other can be twice as long as they would be from a civilian spouse if the service members are assigned separately to remote locations at different times (Henderson, 1981). Female Army dual-service officers were "more likely to have spent 25 weeks or more away from their spouse and children in the last 12 months" and less likely to be satisfied with the amount of family separation than women in traditional marriages (Marshall-Mies et al., 2000). Children of dual-service couples are at increased risk for negative psychosocial effects related to wartime deployment than children of nondual-service couples (Flake, Davis, Johnson, & Middleton, 2009).

4. Assignments

a. Career Conflict

It is a decades-old struggle to make careers run parallel and in sync. In their 1982 study, Hixenbaugh and Hixenbaugh identified career conflict as an issue for Navy dual-service spouses. Smith (2010) affirmed the challenge of ensuring that both members are assigned simultaneously and together to career-enhancing billets to remain competitive for promotion in a "fast track" structure. Dual-service couples compensate with adaptive strategies such as leader-follower, where they take turns taking key assignments or prioritize one career over the other. To successfully manage two careers, dual-service couples "must plan ahead more than anyone" (Smith, 2010, p. 231).

b. Colocation

The Hixenbaughs' (1982) survey revealed that more than 74 percent of dual-service respondents chose colocation over a career-enhancing billet as the most important factor regarding a new assignment, a priority that had retention implications as well. The same survey revealed that 85 percent of respondents were stationed together and 9.5 percent were separated involuntarily. Respondents who were stationed apart were less satisfied with their locations. The most prevalent reason for leaving the service, as indicated by 52.5 percent of the respondents, was being "unable to get assigned to same location as spouse" (Hixenbaugh & Hixenbaugh, 1982, p. 53). Leeds (1988) found that when future orders required separation from spouses, only 14.7 to 42.9 percent of males and 23.1 to 42.9 percent of females in pay grades O-3 to O-5 would accept their orders. As of 1992, 16 percent of Navy officers and 14.7 percent of Marine Corps officers still did not live with their spouses (Defense Manpower Data Center, 1997). For the Navy, colocation has become a priority, and continues to be defined through the Military Personnel Manual (MILPERSMAN) 1300–1000, Military Couple and Single Parent Assignment Policy (Naval Personnel Command, 2016). A 2016 update now requires that orders for any assignments preventing a dual-service couple from collocating must be approved by the Assistant Commander, Navy Personnel Command (ACNPC) and by the Career Management Department (PERS-4). The Marine Corps Personnel Assignments Policy does not include a similar provision (U.S. Marine Corps, 2014).

c. Detailer Support

Dual-service families are unique in that, as Hixenbaugh and Hixenbaugh (1982) point out, "civilian jobs do not generally treat or pay employees differently according to what their spouses do for a living" (p. 54). Although 51.5 percent of respondents indicated that they or their spouses had determined their career intentions, only 40 percent had told their detailers. Fewer than 40 percent said both detailers were cooperative. Some respondents had poor experiences, such as detailers'

- not cooperating, or even being spiteful;
- deciding whose career had priority (usually the husband's);

- not detailing the wife until the husband had orders, even though her rotation date was much sooner;
- forcing the members to choose whose career took priority;
- requiring members to find their own billets;
- appearing to not do due diligence to find billets; or
- lacking coordination between communities.

When a male's career was dominant over his spouse's, males and females both perceived more support from their respective detailers. Some dual-service members did have positive experiences with their detailers, particularly when they shared the same detailer, command, or community (Hixenbaugh & Hixenbaugh, 1982). Spouses from different communities could find it difficult to get support from separate detailers (Alt, 2006, pp. 49–50).

d. Fairness and Efficiency

Leeds (1988) used DoD survey results to measure the Navy's efficiency and fairness in the assignment process. A concern of colocation is the perception of preferential assignment of dual-service couples to "desirable duty locations," defined as locations with more commands where colocation is more likely. Leeds found that officers in a dual-service marriage did not receive preferential assignment to shore duty that men in both, a dual- and nondual-service marriage had equal sea duty, and that women in a dual-service marriage actually spent more time on sea duty, which was possibly related to the occupational fields of the respondents. Leeds' research also found no differences in time on station; though dual-service couples had 1.5 fewer moves than non-dual-service couples did. Leeds expressed concern that this may unfairly displace non-dual-service families (Leeds, 1988).

5. Children

a. Family Planning

Family planning is difficult to time in the military. Historically, the majority of dual-service couples have been childless, but this trend has decreased over time (Iskra, 2010). Family planning remains a challenge for most dual-service families. One reason is stigmatization. Iskra describes pregnancy as the "ultimate form of femininity" (p. 127), which may not be perceived as compatible in the hyper-masculine military. In the past, some Navy service members reported not telling their detailer of dependents or pregnancies to preserve objectivity and prevent discrimination in the assignment process (Hixenbaugh & Hixenbaugh, 1982). Many women in both services still feel stigmatized regarding pregnancy, though they do not see it as compromising their performance as officers (Evertson & Nesbitt, 2004; Smith & Segal, 2013). Some couples defer or forego having children (Iskra, 2010; Smith, 2010), which Smith cites as one way to gain control in aligning family and career. Dual-service couples explain the perception of certain windows in the military as being appropriate for bearing children, and while they attempt to coordinate this process, Smith and Segal (2013) assert that there is no good time to have children.

b. Child Care

Child care challenges are a historical issue for dual-service families. Over 58 percent of respondents in the Hixenbaughs' (1982) survey said child care was either not available or unsatisfactory, mainly due to child care centers' business hours not meeting the needs of work or watch schedules.

A difference was found in career/family lifestyle usage of child care. Dual-career families were half as likely to use military day care as one-career/one-job dual-income homes, and almost three times as likely to use civilian day care. Dual-career families were the most likely family type to have a live-in babysitter/housekeeper. Babysitters were the most commonly used type of child care by all groups. Since only 3.7 percent of dual-career service members responded that the woman would quit her career when having children, Suter warned of the potential impact on child care needs (Suter, 1979).

For over two decades, service members recommended having 24-hour child care centers to accommodate varying work schedules. Requests for such centers were highlighted in early military dual-career and dual-service studies (Hixenbaugh & Hixenbaugh, 1982; Suter, 1979). In 2003, the Navy opened its first 24-hour day care center, which was well received by watch standers who benefited from it (King, 2010). As of 2011, there were six such 24-hour centers available (Perez, 2011). The Marine Corps does not have 24-hour child care centers, though families are referred to family child care homes that may have more flexible hours than the CDCs.

Since dual-service families cannot rely on the other parent for child care when both service members have rigid work schedules, it is not surprising that a 2006 RAND Corporation survey revealed that 42 percent of dual-service families used on-base CDCs, and 50 percent reported using a secondary provider to supplement their needs. Dual-service families were also 61 percent more likely to express unmet care preferences for school-aged children, likely due to limited access to base programs. Most importantly, despite subsidies and priority status in the DoD child care system, dual-service parents were "30 percentage points more likely than single parents to report that child care issues were leading them to consider leaving the military" (Gates, Zellman, & Moini, 2006, p. 37). As research on improvements remains an issue for the DoD (Zellman, Gates, Cho, & Shaw, 2008), child care remains an issue for dual-service families (Smith & Segal, 2013).

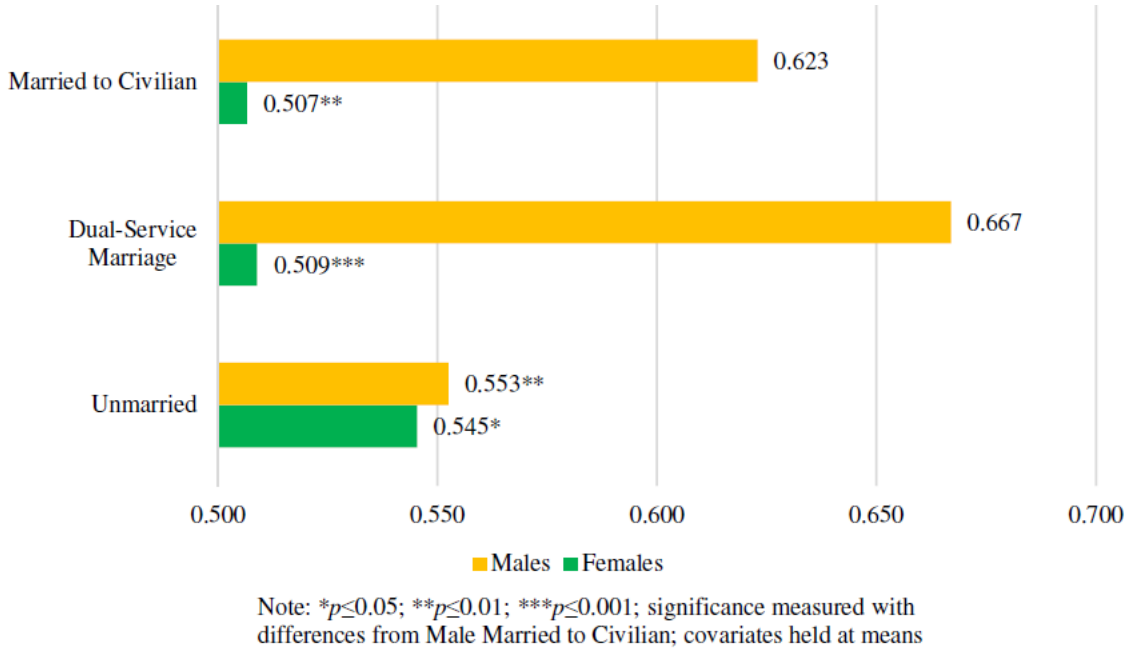
6. Career Intent and Retention

Career conflict influences career intent. Like other dual-career couples, dual-service couples are more likely to express lower career intent than non-dual-service couples. In a 1982 survey of dual-service Navy officers, Hixenbaugh and Hixenbaugh found that 36.1 percent reported career conflict, and of those, 22 percent would report that both would leave the military before retirement, while 53 percent reported that at least one would exit. A very strong relationship existed between conflict and its results, evidenced by 70.8 percent who experienced the results of career conflict, reporting one or both would leave the military, and 11.1 percent reporting they would divorce. The third most common reason for leaving the service was a "better civilian job" and, as the

Hixenbaughs point out, “civilian jobs do not generally treat or pay employees differently according to what their spouses do for a living” (p. 54). The least commonly cited reason for leaving the military was “pressure from family to get out,” an indication that dual-service couples are mutually supportive and dedicated to naval service (p. 55). The Hixenbaughs concluded the main reasons for service couples’ intending to leave, in order, are inability to be collocated (70 percent said one or both would exit the service because of colocation conflicts); separation from family, and civilian job opportunity (Hixenbaugh & Hixenbaugh, 1982).

When analyzing retention more recently, Long (2008) found that dual-service couples were more committed and had higher retention probability than peers with civilian spouses during the first half of their careers, though lower probability compared to peers in the second half of their careers. This study is discussed in detail later in this chapter.

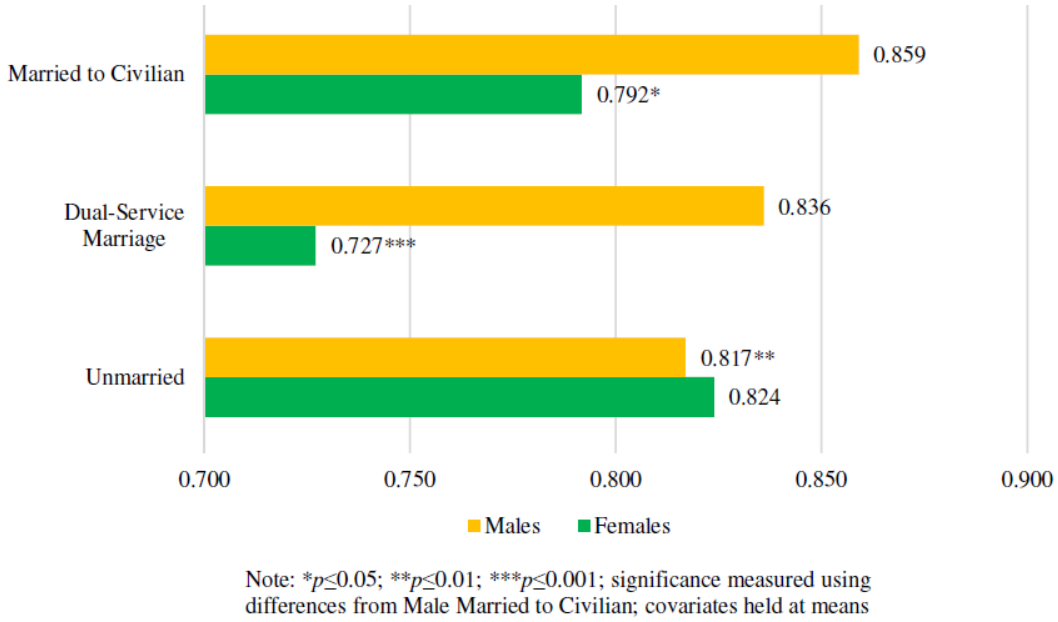
Brummond (2015) examined how commitment to military service differed based on both family structure and gender across the services; this study was the first of its kind to do so that we identified. It assessed how career commitment and affective organization commitment vary when perceived negative aspects, such as separation, geographic mobility, and risk, are experienced compared with when the respondents receive benefits such as education assistance, special pay, allowances, and healthcare, and whether parenthood is a factor. Career commitment is focused on intention of continued service, whereas affective organization commitment relates to work attitude. Ordinal logistic regression was used to analyze data from 10,692 responses to the 2008 Survey of Active Duty Members. Key findings were that married men had the highest career commitment and women in a dual-service marriage the lowest, while unmarried men were less committed than women married to civilians. Career commitment was also higher for parents and for those whose spouse was not in the labor force. Brummond also found that predicted probabilities “demonstrated that married women were the least committed to their military careers, and married men, particularly dual-service marriage men, were the most committed” (p. 40), as highlighted in Figure 6.



Note: *$p \leq 0.05$; **$p \leq 0.01$; ***$p \leq 0.001$; significance measured with differences from Male Married to Civilian; covariates held at means

Figure 6. Career Commitment: Odds of Commitment by Marital Status and Gender. Source: Brummond (2015).

Females in a dual-service marriage also had the lowest odds of affective organizational commitment, as seen in Figure 7. Strengths of this study are its large sample size and holistic approach to looking at gender and marital status against several perceived positive and negative aspects of military service. A limitation was the inability to obtain goodness-of-fit statistics while accounting for the complex survey design.



Note: *$p \leq 0.05$; **$p \leq 0.01$; ***$p \leq 0.001$; significance measured using differences from Male Married to Civilian; covariates held at means

Figure 7. Affective Organization Commitment: Odds of Commitment by Marital Status. Source: Brummond (2015).

E. GENDER DIFFERENCES

Women in the military face unique challenges. Because a higher percentage of military women than men are married to service members, studies and reports on diversity, specifically on gender often mention the dual-service marriage. Therefore, we highlight here some of the unique considerations for women in the military. While we acknowledge that the repeal of the Don't Ask Don't Tell legislation now allows for same-sex marriage in the DoD, for the purpose of this study, we assume that the dual-service couple has at least one woman; gender differences are therefore considered.

1. Marriage and Divorce

According to a 1997 study using DMDC data compared to military men, military women have historically been less likely to be married, more likely to be in a dual service marriage, and more likely to divorce (Aldridge, Sturdivant, Smith, Lago, & Maxfield, 1997). More recently, Karney and Crown (2007) indicated that, while military women have significantly higher dissolution rates than their male counterparts, in all branches and ranks, and over time, they have similar marriage rates to men. Possible explanations

for the higher divorce rate of military women than military men include a potentially increased personal cost of military service to women compared to men, the military may attract women who are at a higher risk for divorce, they lack support, or the social role expectations are a factor (Karney & Crown, 2007).

2. Retention of Women

Many studies have examined the retention of women in the service. They find that, overall, women have 10 to 20 percent lower cumulative retention rates than men at four and 10 years of service, respectively (MLDC, 2010), and the gender gap is wider in the Marine Corps than in the Navy. Figures 8 and 9 demonstrate this phenomenon. The cause of the lower retention rates of women remains unknown. Previous studies tell us that women are less likely than men are to perceive the military as a career (Hosek, 2001), and women face different barriers to career progression than men (Evertson & Nesbitt, 2004; Hosek, 2001).

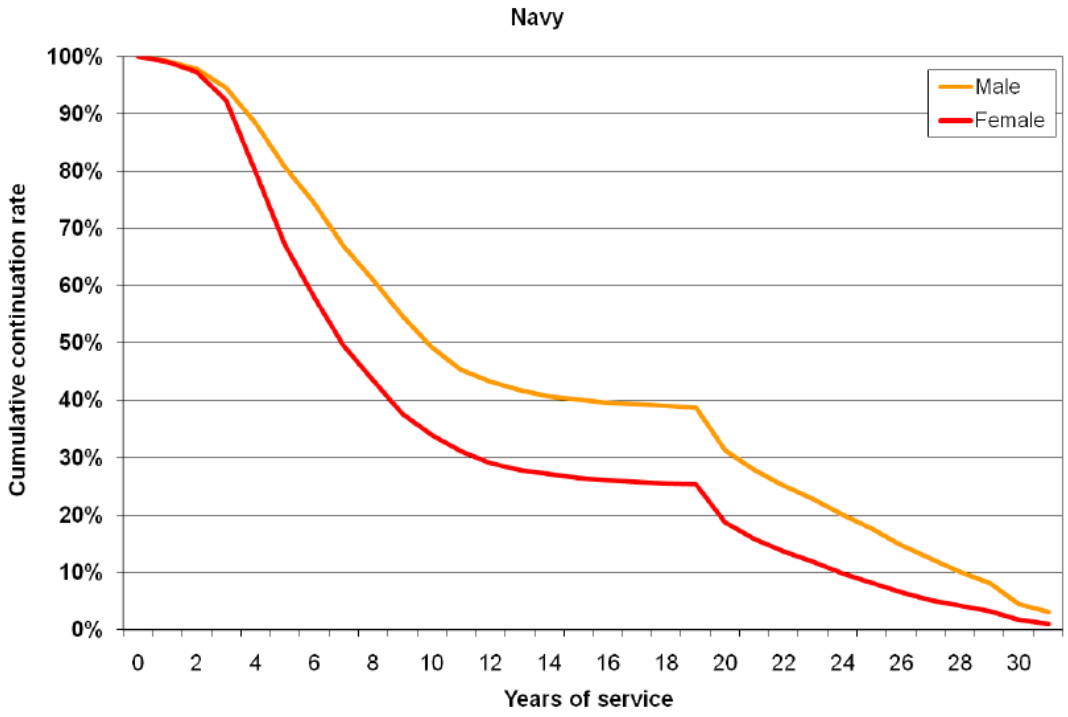


Figure 8. Cumulative Continuation Rates for Men and Women in the Marine Corps, FY 2000–FY 2008. Source: MLDC (2011).

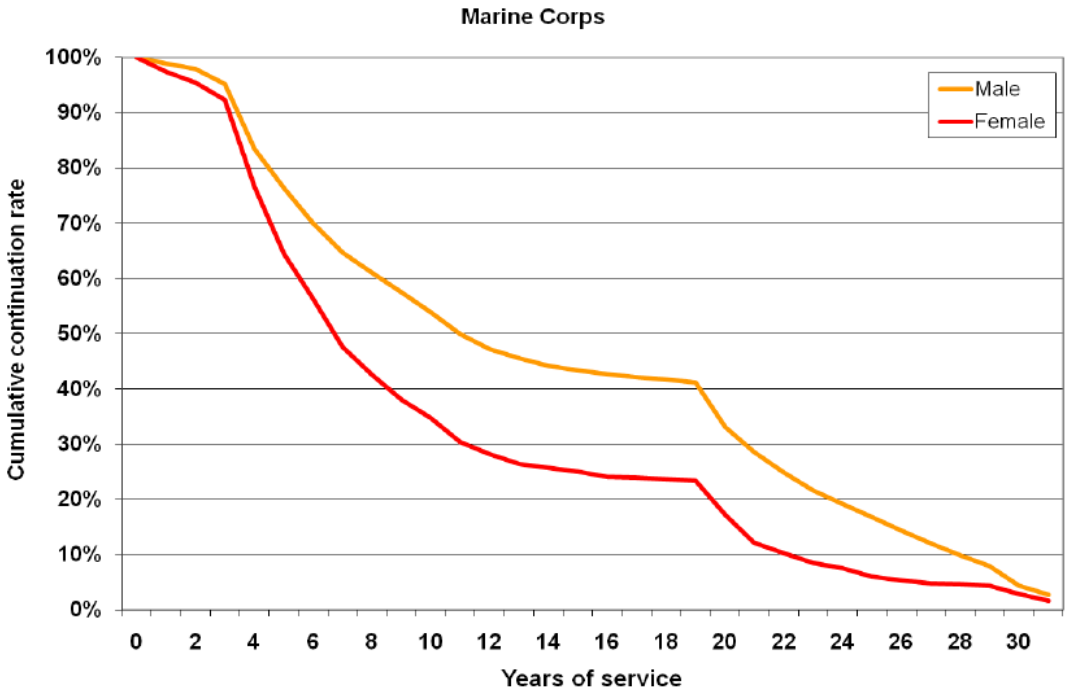


Figure 9. Cumulative Continuation Rates for Men and Women in the Marine Corps, FY 2000–FY 2008. Source: MLDC (2011).

Using data on officers commissioned after 1999, in their cross-service study on officer retention and promotion, Tick, Pema, Mehay, and Salas (2015) found that female Navy officers (as well as women officers in the other military services) have a lower retention rate than men at six years of service and at 10 years of service.

3. Stress and Overload

In a 1987 study, Johnson surveyed naval officers in dual-service marriages, including officers in the Marine Corps and Coast Guard, and explained that women experience overload. The women reported that, while husbands helped with household tasks, the women were more likely to handle the child care (Johnson, 1987). Johnson's findings support Segal's (1986) claim that families are "greedier" for women because of the conflict between careers and their bearing a higher amount of child care responsibilities than their spouses bear. Overload may not be a women-centric issue or at least not to the same degree as it was in the past. Marshall-Mies et al. (2000) assessed that both male and female dual-service Army officers were less likely to report feelings

of having accomplished something worthwhile at the end of the work day than officers in traditional marriages, which may indicate that both genders experience overload in their roles (Marshall-Mies et al., 2000).

F. REVIEW AND CRITIQUE OF PREVIOUS STUDIES

To frame our research approach, we reviewed several studies, including research on other military services and the civilian sector. This section first broadly summarizes the types of previously conducted studies, and then briefly presents and comments on select studies of dual-service personnel or retention rates grouped by quantitative, qualitative, or combined approaches.

Though some of the dual-service studies used a scientific approach including metrics to provide statistical significance tests, data in the majority of studies are qualitative in nature. Statistical analyses of either preexisting survey data (e.g., a DoD Survey of Officer and Enlisted Personnel processed by the DMDC) or surveys generated by the researchers are common in much of the previous research. Some surveys included comments from the respondents for additional context. The shortfalls of any survey are the potential for selection bias, self-selection bias, subjective interpretation of questions by the sample population, or the likelihood of participants' responding to voice their complaints. Additionally, a preconceived framework from the questions themselves may prompt a response where otherwise the participant or respondent would not have considered the topic at all. Furthermore, what an individual indicates on a survey may not reflect actual future events. Therefore, many studies addressing retention are actually studies on career intent. Interviews and focus groups were less commonly used information-gathering techniques. While such studies revealed issues groups, the responses are subject to selection bias and to the interpretation of the researchers and therefore do not necessarily represent the general population. Few studies included quantitative analysis. We review and critique three such studies here, as well as select studies using qualitative or mixed methods.

1. Quantitative

a. Female SWO Retention

For the purpose of this review, the following three quantitative studies were examined in depth to better understand and explore retention of female officers and dual-service couples.

In 2013, Kraus et al. conducted an in-depth study for the Center for Naval Analyses using a quantitative analysis approach to examine officer diversity and the retention of women in the surface warfare and aviation communities. Results from the regression analysis on data from the aviation community were consistent with results of the surface warfare community analysis, which was robust on its own; therefore the report ultimately focused on the surface warfare community. Data included personnel data from the Navy's Officer Master File. Records of 12,567 surface warfare officers (SWOs) commissioned from year groups 1990 to 2003 were compiled through FY 2012 to allow each cohort to reach retention at nine years of continued service. Retention at nine years was selected because that point would be halfway through a department head assignment on a second sea tour at eight years of service, a major SWO milestone. SWOs that laterally moved into the community were included, with transfers typically occurring by three years of service.

Simple logistic regression was used to estimate retention probability separately by gender, and by male race/ethnicity. Independent variables included accession source, college major, marital and dependent status, whether the officer laterally moved into the SWO community, whether the officer took a nuclear subspecialty, ship type on which the officer served, military-civilian (mil-civ) pay differential variables to control for the effect of civilian opportunities on the retention decision, and crew composition (by gender and race).

Due to the small sample sizes of women and of minority males, the researchers compared minority-majority group effects for statistical significance and direction of effect only and did not compare the size of the effects. Furthermore, SWO year groups were merged into four larger cohort groups. These cohorts are defined based on the

timing of accession relative to the repeal of the Combat Exclusion Law in 1994: before gender integration, during phases of integration, and after the terrorist attacks on September 11, 2001, which was also the beginning of a period of mature integration.

Results showed more differences in effects of factors on SWO retention when comparing male and female SWO retention than when comparing minority male and majority male SWO retention. Factors with similar effects on female and male SWO retention included accession source with officer candidate school (OCS) significantly positive, and college major with science and engineering having a negative effect compared to other majors. The mil-civ pay differential variable controlling for the effect of different career opportunities on retention decisions was found to have a statistically significant positive effect on retention probability for both female and male SWOs and for male SWO minority groups. No evidence of crew gender composition at the time nearest the first stay/leave decision was found to affect female SWO retention. It may be that the percentage of women in the officer crew is still too low to influence retention behavior and/or the difference in the crew composition variable is too limited to estimate a relationship to retention. Similarly, no effect of crew composition on male minority SWO retention was identified, but the researchers noted one could emerge in the future if female and minority male officer crews share increases in the future.

Among predictors of SWO female and male retention rates are marital and dependent status. Results showed that male SWOs who were married and/or had children were more likely to retain than single men with no children, while no difference in retention probability was found for married female SWOs and/or female SWOs with children compared to single, childless female SWOs. The researchers attributed a possibility for this difference to sample size differences for female and male SWOs; therefore, the women's retention estimates may not be as precise as the men's. Alternatively, losses from the SWO community from lateral transfers were treated the same as losses from the Navy. The authors posited that female SWOs are more likely than male SWOs to laterally transfer to another community, but the model did not account for this. Furthermore, female SWOs are also more likely than their male counterparts to be married to a military spouse, which may impact their probability of

exiting the SWO community by lateral move. The researchers suggested that capturing these lateral moves more precisely in the model in future research may improve the understanding the marital and dependent status effect on female and male SWO retention. A key recommendation was to examine the effect on retention of officers in dual-service marriages to better understand how this group manages their careers and makes retention decisions; this may be important for female SWO retention decisions since a higher percentage of female SWOs than male SWOs have military spouses. Because data are limited in measuring complex retention decisions, and small samples are further limiting, the authors recommended that future research should include surveys and alternative statistical analysis for small samples. The approach of this study, and the recommendation for further examination of the dual-service officer population, helped shape the framework and variables for this thesis.

b. Female Junior Officer Retention and Promotion in the Navy

Mundell (2016) used a similar methodology to Kraus et al. (2013) to examine the promotion and retention rates of female junior officers in the Navy. While not a dual-service study, the retention factors identified in Mundell's study may also predict retention of dual-service couples given the number of women married to other service members. Mundell focused on retention rates for women of various racial/ethnic backgrounds using quantitative multivariate analysis of data on over 16,000 Navy officers commissioned from 1999 to 2003. Only active duty, full-time support, and selected reservists who entered the service as an O-1 were included for the analysis.

Mundell estimated the minimum service requirement (MSR) and 10-year retention models, as well as promotion to O-4 and lateral transfer by 10 years of service (YOS) models. Independent variables included demographic and professional factors such as gender, race/ethnicity, educational level, commissioning source, and Navy designator. He also estimated O-4 promotion models and lateral transfer models.

The regression estimates indicated that women are less likely stay in the Navy than men, but showed no difference in promotion rates to O-4 and lateral transfers rates. Not surprisingly, the multivariate regression analysis found that officers with graduate

education or who laterally transfer by 10 years of service have higher rates of retention and promotion than officers who do not laterally transfer or have no graduate education. The results showed that the probability of MSR retention for women is 2.7 percent less than that of men, which widens to 12 percent by 10 years of service. Men who are married, have dependent children by six YOS and obtain a graduate-level education have a higher probability of retention six and at 10 YOS than men who are single, have no dependent children by 6YOS and have no graduate degrees. Officers who complete lateral transfers are more likely to retain to 10 YOS. SWOs have the lowest retention rates at 10 years of service. While we are not able to follow lateral transfers in our data analysis, the topic of improving job match quality and the work-life balance through lateral transfers into different communities did show up in our focus groups conducted with resident graduate students at NPS.

c. Retention and Performance of Female Navy Officers with a Military Spouse

Wagner's (2017) NPS thesis examined the retention of Navy female officers with added focus on marital construct, centering on retention of officers in a dual-service marriage. This appears to be the first quantitative study to focus on the topic of retention and promotion of service members married to another service member. Similar to Mundell (2016), Wagner uses a longitudinal data set of Navy officers commissioned between 1999 and 2003 and followed annually until 10 years of service or until separation. He estimates retention models with independent variables including marital status and gender; the demographics group consists of age, gender, race, education, commissioning source, community, and cohort year. The critical independent variables include marital status, the type of spouse (military or civilian), collocation, and dependent children to assess their impact on job performance. The variable indicating colocation of spouses in dual-service marriage shown very little variation, therefore this independent variable was not useful in the multivariate analysis. The reason might be clerical if this information is not updated in personnel files.

Results from the 10-year retention model support previous research findings that females retain at lower rates than males. Women in a dual-military marriage were found

to have lower retention rates than women with a civilian spouse, while men in dual-military marriage status have higher retention among male officers. However, dual-military women who retain past 10 years of service show higher performance than their male counterparts, as measured by early promotion recommendations. Furthermore, dual-service officers with dependent children who retained past 10 years of service showed higher performance than their nondual-service counterparts married to civilians, as measured by their higher probability of early promotion recommendations.

Other results indicated that, as previous research found, officers commissioned through OCS receive the best average performance scores. Also, restricted line and staff communities showed higher retention rates and performance, which the author attributed to better quality of life, higher motivation, and better performance. No significantly different retention rates were found among dual-military married officers across communities.

One limitation of the Wagner (2017) study is the small sample size of female officers married to a service member, though, with all communities now open to women, this number is expected to grow, which may allow for larger samples in future research. In our multivariate analysis, we will not be able to capture colocation, and we will focus on retention as we do not have annual evaluation scores. However, we use a large data set to include the entire population of Navy and Marine Corps officers commissioned between FY1998 and FY2003 and use a rich set of variables capturing not only the marital status of officers, but also the dependent children status. In addition, we supplement our quantitative approach with focus groups for additional, more nuanced insights into factors explaining retention for dual service couples.

2. Qualitative

Johnson (1987) used a four-part survey to examine the causes and impact of stress and overload on active duty dual-service women in the U.S. Navy (USN), U.S. Marine Corps (USMC), and U.S. Coast Guard married to active duty spouses. This study is the only dual-service study we found during our review that includes both the USN and USMC, and it identifies a range of information not specifically captured in other surveys.

The survey included questions on background, physical health and stressors, roles and perceived overload from those roles, and marriage type. Responses from 38 officers were analyzed. Johnson reported that the respondents were satisfied with their roles but experienced overload and health problems. The majority indicated that their marriages were egalitarian regarding career and housework, but the women performed more child care tasks. Top stressors included career planning, spending time with family, permanent change of station (PCS), moving, separations, move preparations, finding collocated assignments, long work hours, and finding quality and after-hour child care. A benefit of the study is the representation from all the maritime services and the holistic approach to examining the interaction of work and family life roles and associated the stressors or satisfaction. Limitations of this study are its small sample size, and that it only surveyed dual-service women. Magnitude was not measured because there was no comparison with dual-service men, dual-career service members married to civilians, single officers, or nonmilitary dual-career individuals. It also did not provide indication that data were analyzed for statistical significance. However, this study did give some insight into the attitudes of and issues faced by dual-service personnel.

Smith (2010) used a grounded theory approach to study the careers and family life courses of dual-service couples and their decision-making processes with a life course perspective. Transcripts from 46 interviews of 23 dual-service Navy couples were analyzed through open coding and then axial coding to develop themes. The results demonstrated that dual-service couples are motivated to serve their country while living together and having a family. To do so with highly structured career paths and organizational demands affecting all aspects of their lives, work and family decisions are based on long-term outlooks. Smith explains these couples adapt by employing one of four work-family prioritization strategies (displayed in Figure 10) for achieving their personal and professional goals, which in turn decrease stress and increase life satisfaction. Strategies include prioritizing career first, family first, leading and following, or shifting priorities. The strength of the study was the comprehensive analysis of in-depth interviews using a constant comparison method. A benefit of this study is that it captured decisions and perspectives across the life course of the participants. Limitations

include the small sample size and the acknowledged biases of the author as a senior male naval officer.

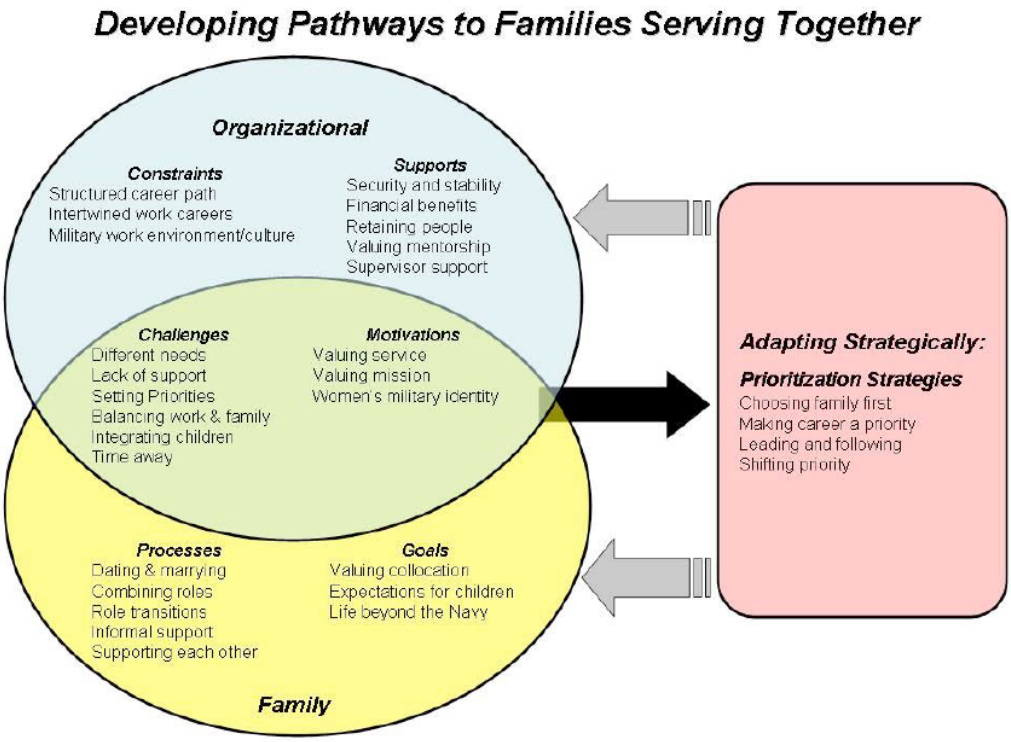


Figure 10. Developing Pathways to Families Serving Together. Source: Smith (2010).

3. Mixed Method – Quantitative and Qualitative

One study found to combine quantitative and qualitative analysis was Long's (2008) retention study of dual-service couples in the U.S. Air Force. The first part of the study analyzed aggregate data from the U.S. Air Force Interactive Demographic Analysis System to compare retention rates over time of dual-service officers with non-dual-service officers using an attrition rate ratio. The results suggest a higher retention rate among dual-service members until seven and a half years of service, at which point lower retention rates than non-dual-service members are seen. A limitation of the analysis was the lack of data from 16 to 20 years of service to see if the results hold true to retirement eligibility. The second part of the study analyzed 12,370 officers' responses from the Air

Force 2003 Career Intentions Survey. Ordinary least squares regressions were calculated to determine intention for continued service. Dual-service members were assessed to be less inclined to remain in the service for the second half of their careers than officers who were single or married to civilians were. Additionally, the amount of PCS moves and deployments and having children are associated with lower retention rates of dual-service members. Of note, women married to civilians were even less inclined to remain in their careers than dual-service members were.

G. SUMMARY

We reviewed several studies on dual-service couples across the Armed Forces and examined the benefits and challenges of military families, the challenges and effects of managing the demands of two careers in a military family, and the unique combination of these that the dual-service couple faces. Service members in dual-service marriages are a motivated and committed group whose spouses face the challenges of being in a military family as well as the demands of their own military careers.

The reviewed studies helped us frame the methodology for our research. Long (2008) inspired our use of quantitative analysis, which was historically lacking for the dual-service population, with a complementary qualitative approach. Kraus et al. (2013) helped to inform our quantitative approach, which was subsequently validated by Wagner (2017). Smith's (2010) original, grounded theory dissertation research provided in-depth context on dual-service members' experiences, challenges, and adaptation strategies through deliberate analysis of information provided directly from the members in their own words.

This study seeks to contribute additional insights to the findings generated by previous quantitative and qualitative research on Navy and Marine Corps retention issues around married officers, with an emphasize on the dual service couples who face additional constraints in their effort to balance their careers and family lives.

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III. QUANTITATIVE ANALYSIS: DATA, MODELS, AND DISCUSSION OF FINDINGS

In this thesis, we use a quantitative approach integrated with a qualitative method to address the retention of officers in dual-service couples. The quantitative approach uses multivariate regression analysis and large-scale, off-the-shelf data on Marine Corps and Navy officers commissioned between fiscal years 1998 and 2003 and observed annually until 10 years of service or until separation. The goal is to test statistically whether retention rates of officers in a dual-service marriage are different from retention rates of officers who are single or married to a civilian while controlling for other demographic and professional characteristics. While the quantitative approach has the advantage of a large sample size that captures officers with different characteristics, using off-the-shelve data restricts us to the measured characteristics available in the data and therefore observed by us. The qualitative inquiry method complements our approach by identifying more nuanced issues around factors associated with dual-service retention, even if the sample size is typically small and the larger trends might be difficult to identify. Therefore, we integrate the two methods of analysis in our research.

In this chapter, we present the data and models used in the multivariate regression analysis and present the results.

A. DATA

This section presents the data sources, the dependent (outcome) variables and independent (explanatory) variables for the regression analysis, as well as summary statistics for the variables used in the quantitative analysis.

1. Source

The data set used for this thesis comes from the DMDC located in Seaside, California. DMDC is the DoD's human resource information source. DMDC maintains records for all personnel in all Armed Forces branches who have previously served or are currently serving in defense of our nation.

The request submitted to DMDC was for individual records on the full population of active duty DoN officers from fiscal year (FY) 1998 to FY 2013. DMDC provided a data set comprising 1,191,563 individual level annual observations on active duty personnel from all U.S. military services from FY 1998 to FY 2013. The data set includes observations on 27,126 commissioned personnel and 4,247 enlisted personnel with another 627 observations on Warrant Officers. Additionally, the data set has 1,044 observations on Army personnel, 301 observations on Coast Guard personnel, 1,332 observations on Air Force personnel, 76 on Public Health Service personnel and seven on National Oceanic and Atmospheric Administration personnel.

Dual-service couples are a unique group of individuals in that they can be married to an individual in the same service or a different service. Other than the Joint Spouse Identification code, which indicated that an officer was part of a dual-service marriage, we were unable to determine which service the spouse belonged to. This information would have been useful for determining whether being in a same-service or an inter-service marriage had any significance. Another challenge was that, after collapsing the data to include only Navy and Marine Corps officers, we found that 26,200 (16.4 percent) of the observations were missing a commissioning date. This proves an obstacle in the attempt to form cohorts that can be followed over the long term. To mitigate this, we dropped any observations that did not have commissioning dates from the working data set. Another challenge was that additional variables we would have included in the analysis, such as age, whether the individual is prior enlisted, or colocation, were not available in the data set. The original data set contains 66 variables and encompasses demographic information such as gender, race, marital status, number of children, and education level. The original data set also provides the commissioning data of individuals, designator, rank, date of rank, shore and sea duty, commissioning program, active federal military service time, and joint spouse identification, the last of which is to identify dual-service members.

To address each service's descriptive statistics, the data set is broken into two separate data sets, one for the USN and one for the USMC. Any non-DoD officer records and enlisted records are dropped from the data set. The data provided also contains

multiple observations per person. Table 3 provides sample details of how the final sample (*n*=27,126) of Navy and Marine Corps officers is reached.

Table 3. Progression from Original Data Set to Sample (*n*).

Sample Details	Number of Observations
Initial sample	1,191,563
Non-USN/USMC dropped	2,760
Enlisted/Warrant Officers dropped	4,566
Single unique identification when collapsed	160,166
Missing commissioning dates dropped	26,200
All officers not commissioned between FY 1998 and FY 2003 dropped	101,175
Total officers other than O-1 dropped	4,361
Total number of U.S. Navy officers	20,385
Total number of U.S. Marine Corps officers	6,741
Number of Observations in working sample	**27,126**

To obtain a data set that can be used in a multivariate regression, the data set is collapsed so there is only one observation per unique identifier. This provides a snapshot of individual officers' careers when they entered into the data set and when they exited. This data set allows us to identify changes that may have occurred over time, such as changes in marital status, or total number of child dependents.

2. Definition of Dependent Variables

The dependent variables used in this analysis capture retention rates of Navy and Marne Corps officers at two specific points in their careers: 60 months and 120 months, as presented in Table 4. We use retention measures at two different time markers in an officer's career because we expect the decisions to stay or leave to be impacted by different factors at an early versus later career point.

(1) **Retention at 60 Months (RETENTION_60).** We define our first retention measure at 60 months for all officers who have accessed from service academies and programs requiring at least a four-year

commitment. Depending on the commissioning source, this allows us to look at retention at the first major milestone marker when many of the four-to-five-year commitments have been completed and the service member is deciding whether to take another set of orders or put in separation paperwork.

(2) **Retention at 120 months (RETENTION_120).** Many officers consider the 120-month milestone the deciding point of whether to continue serving; this is the halfway point to fully vested retirement. This second retention measure also allows us to consider a larger set of officers, such as pilots and naval flight officers, whose service commitments last past the 60-month retention point but not as long as 120 months.

Table 4. Dependent Variables: Retention Measures

Dependent Variable Name	Definition
RETENTION_60	1= if the Navy/Marine officer is in active duty at 60 months of service 0= otherwise.
RETENTION_120	1= if the Navy/Marine officer is in active duty at 120 months of service 0= otherwise.

3. Definition of Independent Variables

The independent variables used in our analysis are broken down by demographic and professional (military) characteristics. Military factors include the different communities within the Navy and the Marines Corps that the officers belong to, the ranks the officers have achieved, the commissioning program from which they commissioned, and the cohort they have been placed in based on their commissioning date. Demographic characteristics include gender, race, marital status, level of education, and whether they have child dependents during their period of service.

We want to test using regression analysis whether the stay/leave decision outcomes are different for officers in dual-service households versus officers who are single or married to civilian counterparts. Therefore, our critical independent (explanatory) variable captures the marital status of service members.

a. Demographic Characteristics

(1) Gender and Race

Table 5 shows the gender and race/ethnicity variable definitions. These are dummy variables, taking a value of 1 to identify the specific gender/race category and 0 otherwise. We aggregated two smaller main race/ethnicity groupings. The first grouping comprised American Indian, Alaskan Native, Native Hawaiian, and other Pacific Islander, and the second grouping comprised all other race/ethnicity variants not currently broken out, along with unknowns.

Table 5. Demographic Characteristics: Gender and Race Variables

Independent Variable Name	Definition
FEMALE	1= FEMALE 0= OTHERWISE
MALE	1= MALE 0= OTHERWISE
WHITE	1= WHITE 0= OTHERWISE
BLACK OR AFRICAN AMERICAN	1= BLACK 0= OTHERWISE
ASIAN	1= ASIAN 0= OTHERWISE
AMERICAN INDIAN/ALASKAN NATIVE OR NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER	1= AA/AN/NH/PI 0= OTHERWISE
OTHER UNKNOWN RACE	1= OTHER_ UNKNOWN_RACE 0= OTHERWISE
RACE HISPANIC	1= RACE_HISPANIC 0= OTHERWISE

b. Marital Status

The Navy data provided by DMDC classifies personnel into married and not married individuals, while the Marine Corps data provided more detail to include annulled, legally separated, married, not married, divorced, and widowed distinctions. For the purposes of our thesis and for the comparative analysis, we determined that the marital status distinctions would be limited to the three categories presented in Table 6: officer in a dual-service couple, officer married to a civilian, and single officer (not married).

(1) Dual-Service

The *dual-service* dummy variable takes the value of 1 if the service member is married to another service member, and 0 otherwise. This variable is of particular interest in this thesis. It identifies those officers in the data set who have been in or currently are in a dual-service marriage during their career. The data set is provided with a spousal identification code which indicates whether that individual is married to another active duty service member. Therefore, if an officer has a joint spousal identification, the dual variable is given a 1, or 0 otherwise. We capture the marital status of the officers in our data set at commissioning, and 60 and 120 months, respectively.

(2) Married Not Dual

The variable *married not dual* indicates that the officer is married to a civilian, not a service member. For thesis and definition purposes, the married not dual variable takes a value of 1 only for those individuals whose spouse is not an active duty service member, both at entry (commissioning) and at 60 (and 120) months of service. A spouse who is part of the Reserves or National Guard is categorized here as a civilian.

(3) Not Married

This category takes a value of 1 if an officer is not married at commissioning and at 60 months (and 120 months) of service, respectively, and 0 otherwise (see Table 6).

Table 6. Demographic Characteristics: Marital Status Variables

Independent Variable Name	**Definition**
DUAL_ENTRY, DUAL_60, DUAL_120	1= if the officer is married to another service member at commissioning, and at 60 and 120 months of service, respectively, 0= otherwise
MARRIED_NOT DUAL_ENTRY, MARRIED NOT DUAL_60, MARRIED NOT DUAL_120	1= if the officer is married, but not to a service member, at commissioning, and at 60 and 120 months of service, respectively, 0= otherwise
NOT MARRIED_ENTRY, NOT_MARRIED_60, NOT_MARRIED_120	1= if the officer is not married at commissioning, and at 60 and 120 months of service, respectively, 0= otherwise

(4) Dependent Status

Table 7 presents the definitions for the variables that capture the total number of dependent children of each officer in our data set. When the data set was collapsed, we retained specific data for each observation at commissioning and at 60 months of service. We then coded the data and generated an indicator to determine whether any given officer in our data set had a dependent child at commissioning and at 60 months (and 120 months), respectively.

Table 7. Demographic: Dependent Status Variables

Independent Variable Name	Definition
CHILD_ENTRY, CHILD_60, CHILD_120	1= if the officer has dependent children at commissioning, and at 60 and 120 months of service, respectively 0=otherwise

(5) Professional Attributes

(a) Commissioning Program

While there are many ways to enter the military as an officer, we decided to consolidate the number into four main categories to include an unknown commissioning source. Table 8 provides the breakdown of commissioning programs used in our analysis. This identifier provides additional insight on the background of officers vis-a-vis their retention.

Table 8. Commissioning Program

Independent Variable Name	Definition
US NAVAL ACADEMY	1= USNA 0= OTHERWISE
ROTC/NROTC	1= ROTC_NROTC 0= OTHERWISE
OCS/DIRECT APPOINTMENTS	1= OCS_DIRECTAPPOINTMENTS (if Officer commissioned from a service academy other than USNA, OCS, AOCS, OTS, PLC, aviation cadet program, a direct appointment authority or other) 0= OTHERWISE
UNKNOWN COMMISSIONING SOURCE	1= UNKNOWN_COMMISSIONING_SOURCE 0= OTHERWISE

(b) Cohorts

To follow the trends over the 60- and 120-month retention periods, we developed cohort indicators based on the commissioning dates of the officers. With the data provided, we determined that we would follow six consecutive cohorts, starting with those officers commissioned in FY 1998 and ending with those commissioned in FY 2003.

Tables 9 and 10 show the distribution of total number of officers versus the total number of dual- service members across all six cohorts by service. Female Navy officers are nearly eight times more likely to be a part of a dual-service couple than their male counterparts, while female Marine Corps officers are 10 times more likely. On average, each cohort, across both services, has approximately 6 percent of their officers in a dual-service marriage.

Table 9. USN Cohort Breakdown

USN	Total Number of Male Officers	Total Number of Female Officers	Total Number of Officers	Percent of Male Officers as Part of a Dual-Service Couple	Percent of Female Officers as Part of a Dual-Service Couple	Percent of Officers as Part of a Dual-Service Couple, by Cohort
Cohort 1998	2,481	418	2,899	2.1% (52)	22.2% (93)	5.0% (145)
Cohort 1999	2,676	532	3,208	3.1% (83)	21.4% (114)	6.1% (197)
Cohort 2000	3,001	615	3,616	2.4% (73)	23.9% (147)	6.1% (220)
Cohort 2001	3,064	646	3,710	2.6% (79)	22.0% (142)	6.0% (221)
Cohort 2002	2,978	602	3,580	3.2% (94)	20.1% (121)	6.0% (215)
Cohort 2003	2,790	582	3,372	2.8% (79)	23.7% (138)	6.4% (217)
Total	16,990	3,395	20,385	2.7% (460)	22.2% (755)	6.0% (1,215)

Table 10. USMC Cohort Breakdown

USMC	Total Number of Male Officers	Total Number of Female Officers	Total Number of Officers	Percent of Male Officers as Part of a Dual-Service Couple	Percent of Female Officers as Part of a Dual-Service Couple	Percent of Officers as Part of a Dual-Service Couple, by Cohort
Cohort 1998	1,097	109	1,206	2.5% (27)	32.1% (35)	5.1% (62)
Cohort 1999	1,068	98	1,166	2.5% (27)	27.6% (27)	4.6% (54)
Cohort 2000	1,096	98	1,194	3.6% (40)	33.7% (33)	6.1% (73)
Cohort 2001	1,053	119	1,172	2.4% (25)	33.6% (40)	5.5% (65)
Cohort 2002	943	86	1,029	4.1% (39)	43.0% (37)	7.4% (76)
Cohort 2003	875	99	974	3.4% (30)	33.3% (33)	6.5% (63)
Total	6,132	609	6,741	3.1% (188)	33.7% (205)	5.9% (393)

4. Descriptive Statistics

The descriptive statistics for the full working data set sample are shown in Table 11. The retention at 60 months (*Retention_60*) of commissioned officers in the DoN is 81.1 percent and retention at 120 months (*Retention_120*) is 54.1 percent. Officers in the Navy show a slightly higher retention rate at 60 months, while the Marine Corps' retention rate at 120 months is larger than that of naval officers.

At entry, female officers make up 16.7 percent of officers in the Navy, while there are 9 percent in the Marine Corps subsample. Single officers at entry (*Not_Married_Entry*) make up 78.9 percent of the sample while at 60 and 120 months they represent 37.6 and 17.7 percent respectively. Married officers at entry (*Married_Entry*) represent 21.1 percent of the sample and by 60 months that percentage nearly triples to 61.9 percent. At 120 months, the percentage of married officers in the sample is 81.7 percent. The Marine Corps has 11 percent more married officers at entry (29.6 percent) than their Navy counterparts (18.3 percent). By 60 and 120 months, the gap in percentage of married officers between the two services lessens to 1 percent between the two services. Overall, in our sample, officers who are married to another service member at the time of their commissioning (*Dual_Entry*) represent almost 1 percent of the total sample. By comparison, 2.3 percent of Marine Corps

officers are part of a dual-service marriage at entry compared to the Navy's 0.4 percent. Officers in a dual-service marriage at 60, and 120 months represent 5.7 percent and 5.4 percent, respectively. The percentage of officers married to another service member are similar within both the Navy and Marine Corps. Officers with dependent children at entry, at 60, and 120 months represent 8.9 percent, 36.7 percent, and 69.1 percent of the full sample, respectively. Navy officers enter with a slightly higher percentage of dependents (9.2 percent) than the Marine Corps (at 7.9 percent). At 120 months, 69 percent of Navy and Marine Corps officers have one or more child dependents. Regarding race, 82.5 percent of the sample are white, 2.1 percent are Asian, 7.9 percent are black, 2 percent are Native American, 1.4 percent are Hispanic, and 5.6 percent have a missing (unknown) race. Regarding accession sources, 20.4 percent of the sample commissioned through USNA, 20.1 percent commissioned through ROTC and NROTC, 42.1 percent commissioned through *OCS,* and direct appointments, and 17.3 percent commissioned have a missing (unknown) commissioning source.

Table 11. Mean Statistics for Working Sample

Dependent Variables	DoN	USN	USMC
Retention_60	0.8114	0.8185	0.7899
Retention_120	0.5412	0.5361	0.5566
Independent Variables			
Demographic Variables			
Female	0.1476	0.1665	0.0903
Male	0.8524	0.8335	0.9097
Not_Married_Entry	0.7885	0.8167	0.7035
Married_Entry	0.2115	0.1833	0.2965
Married_NotDual_Entry	0.2029	0.1793	0.2744
Dual_Entry	0.0089	0.0041	0.0234
Not_Married_60	0.3761	0.3835	0.3532
Married_60	0.6194	0.6137	0.6372
Married_NotDual_60	0.5628	0.5582	0.5773
Dual_60	0.0567	0.0555	0.0605
Not_Married_120	0.1773	0.1794	0.1711
Married_120	0.8174	0.8163	0.8206
Married_NotDual_120	0.7637	0.7627	0.7665
Dual_120	0.0537	0.0535	0.0544
Child_Entry	0.0886	0.0919	0.0788
Child_60	0.3669	0.3078	0.3606
Child_120	0.6911	0.6905	0.6927
White	0.8250	0.8236	0.8293
Asian	0.0212	0.0241	0.0125
Black	0.0787	0.0829	0.0660
Amerindian_NatHawaiian	0.0195	0.0214	0.0138
Race_Hispanic	0.0141	0.0107	0.0242
Other_Unknown_Race	0.0556	0.0480	0.0785
Professional Variables			
USNA	0.2043	0.2262	0.1383
ROTC_NROTC	0.2015	0.2403	0.0843
OCS_DIRECTappointments	0.4212	0.3582	0.6118
UNKNOWN COMMISSIONING SOURCE	0.1727	0.1753	0.1647

Tables 12 and 13, along with corresponding Figures 11 and 12, show retention at 60 and 120 months, respectively, by marital status for the Navy officers in our data. Retention rates for Navy officers in dual-service marriages are smaller compared to those officers who are single or married to a civilian spouse. Total number of officers in a dual-service marriage, by cohort, never surpasses 200 and by time 120 months, the dual-service marriage numbers are declining. From time of entry to 120 months, the number of single officers diminishes and the percentage of officers married to a civilian continues to increase over time.

Table 12. Navy Marital Status at 60 Months of Service

Retention at 60 Months							
USN	Not Married	Married Not Dual	Dual	Total Married	Total Number of Officers accounted for 60 month Marital Status	Total Number of Officers Missing Marital Status	Total
Cohort FY1998	1,079	1,406	95	1,501	2,580	6	2,586
Cohort FY1999	1,090	1,528	145	1,673	2,763	11	2,774
Cohort FY2000	1,123	1,697	187	1,884	3,007	4	3,011
Cohort FY2001	1,094	1,759	190	1,949	3,043	12	3,055
Cohort FY2002	1,069	1,493	169	1,662	2,731	4	2,735
Cohort FY2003	943	1,430	140	1,570	2,513	11	2,524
Total Number of Observations	6,398	9,313	926	10,239	16,637	48	16,685

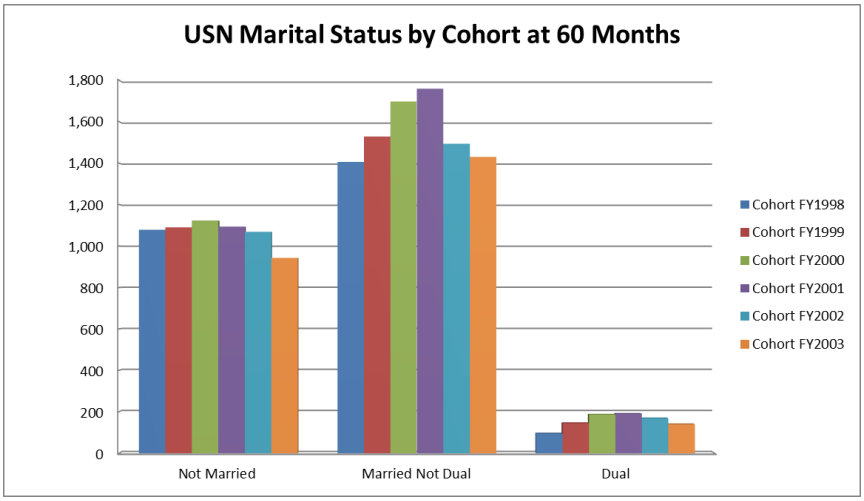

Figure 11. USN Marital Status by Cohort at 60 Months of Service

Table 13. Navy Marital Status at 120 Months of Service

Retention at 120 Months							
USN	Not Married	Married Not Dual	Dual	Total Married	Total Number of Officers accounted for 120 month Marital Status	Total Number of Officers Missing Marital Status	Total
Cohort FY1998	266	1,267	76	1,343	1,609	13	1,622
Cohort FY1999	309	1,358	101	1,459	1,768	13	1,781
Cohort FY2000	338	1,440	109	1,549	1,887	11	1,898
Cohort FY2001	353	1,546	107	1,653	2,006	7	2,013
Cohort FY2002	366	1,401	103	1,504	1,870	3	1,873
Cohort FY2003	329	1,323	89	1,412	1,741	0	1,741
Total Number of Observations	1,961	8,335	585	8,920	10,881	47	10,928

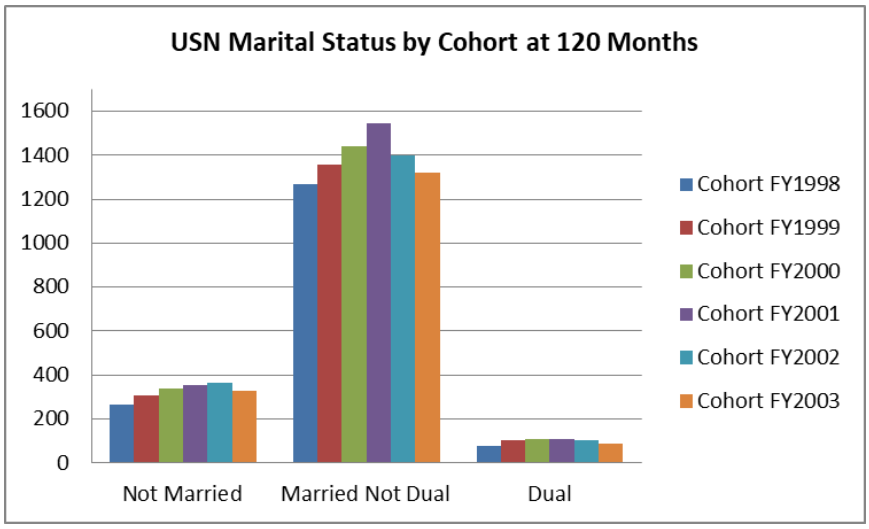

Figure 12. USN Marital Status by Cohort at 120 Months of Service

Tables 14 and 15, along with corresponding Figures 13 and 14, show retention at 60 and 120 months, respectively, by marital status for the Marine Corps officers in our data. Retention rates for Marine Corps officers in dual-service marriages are smaller compared to those officers who are single or married to a civilian spouse. The total number of officers in a dual-service marriage, by cohort, never surpasses 70 and by time 120 months, the numbers are to declining. Similar to the Navy's results, from time of entry to 120 months, the number of single officers diminishes and the percentage of married to a civilian continues to increase over time.

Table 14. Marine Corps Marital Status at 60 Months of Service

Retention at 60 Months							
USMC	Not Married	Married Not Dual	Dual	Total Married	Total Number of Officers accounted for 60 month Marital Status	Total Number of Officers Missing Marital Status	Total
Cohort FY1998	348	608	59	667	1,015	9	1,024
Cohort FY1999	344	555	47	602	946	14	960
Cohort FY2000	302	544	59	603	905	7	912
Cohort FY2001	326	489	48	537	863	13	876
Cohort FY2002	267	467	61	528	795	5	800
Cohort FY2003	294	411	45	456	750	3	753
Total	1,881	3,074	319	3,393	5,274	51	5,325

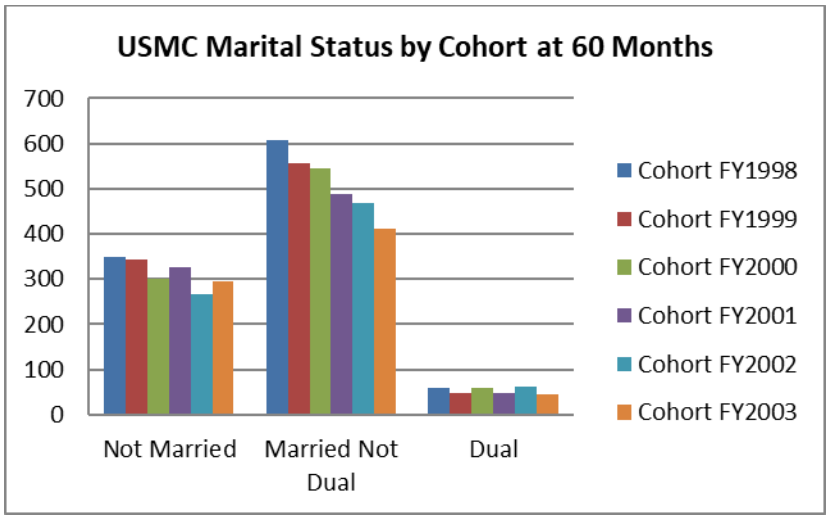

Figure 13. USMC Marital Status by Cohort at 60 Months of Service

Table 15. Marine Corps Marital Status at 120 Months of Service

Retention at 120 Months							
USMC	Not Married	Married Not Dual	Dual	Total Married	Total Number of Officers accounted for 120 month Marital Status	Total Number of Officers Missing Marital Status	Total
Cohort FY1998	111	546	40	586	697	9	706
Cohort FY1999	116	491	27	518	634	12	646
Cohort FY2000	111	492	42	534	645	5	650
Cohort FY2001	107	480	29	509	616	3	619
Cohort FY2002	98	455	38	493	591	2	593
Cohort FY2003	99	412	27	439	538	0	538
Total Number of Observations	642	2,876	203	3,079	3,721	31	3,752

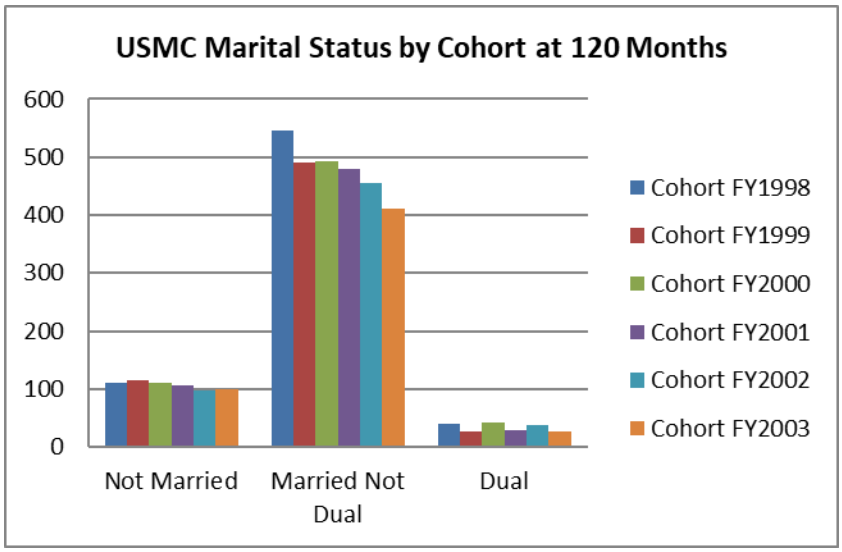

Figure 14. USMC Marital Status by Cohort at 120 Months of Service

Figures 15, 16, 17, and 18 depict retention by service and gender at different times: entry, 60 months, and 120 months, respectively. Interesting to note are the similarities between retention rates of male (female) officers in the two services. The graphs also indicate that earlier cohorts tend to stay in at a higher percentage than younger cohorts due to the years we observe our retention outcomes, 1998–2013.

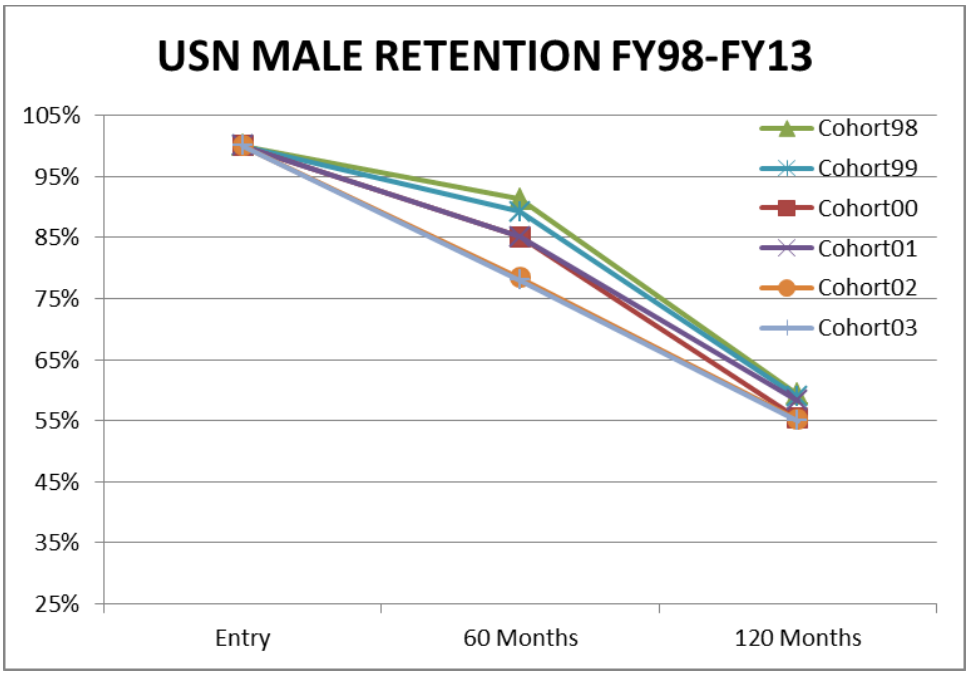

Figure 15. USN Male Retention FY 1998–FY 2013

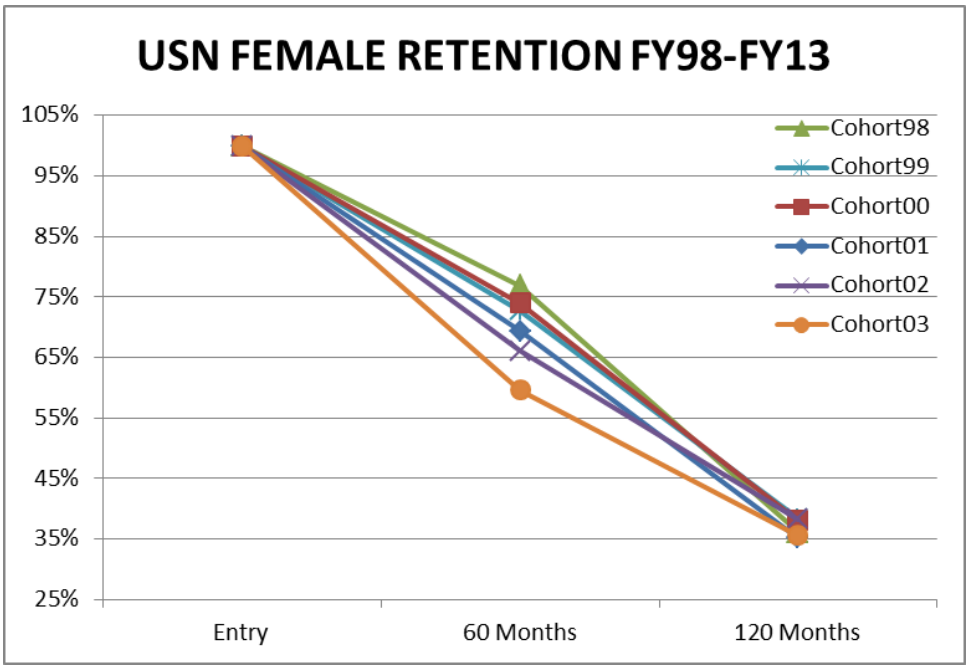

Figure 16. USN Female Retention FY 1998–FY 2013

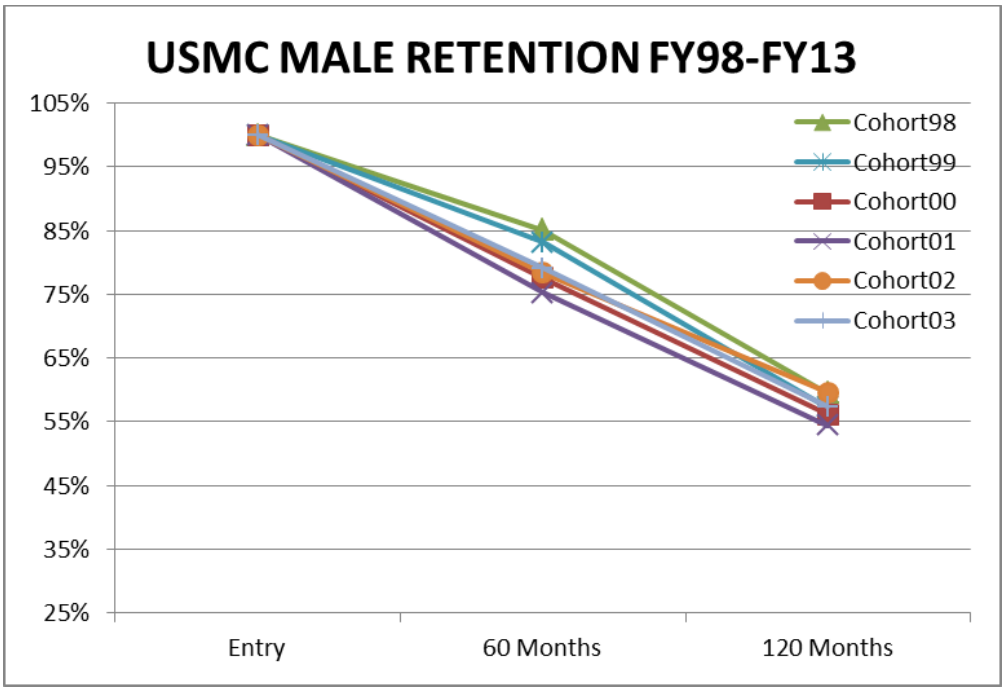

Figure 17. USMC Male Retention FY 1998–FY 2013

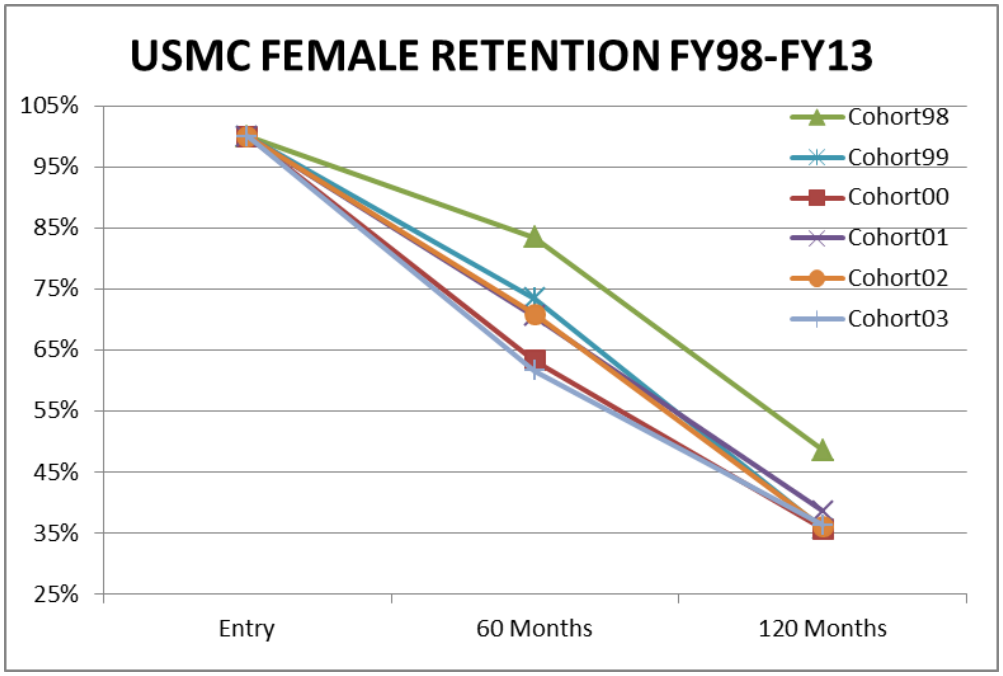

Figure 18. USMC Female Retention FY 1998–FY 2013

B. MODEL SPECIFICATION AND DISCUSSION OF RESULTS

1. Model Specification

This thesis examines the retention behavior of USN and USMC officers married to another service member. Officers in a dual-service marriage represent about 10 percent of the married officer community within our data set. Our goal is to examine whether there is any difference in retention between officers who are in a dual-service marriage versus officers who are married to civilians or single.

The retention behavior is measured by a variable that takes a value of 1 if the officer is still in service and 0 if she has left service. Therefore, the multivariate analysis examining retention behavior of officers in this thesis uses a probit model that accommodates the binary format of the retention measure. Following a traditional retention model, as described in the Chapter II literature review, we examine retention at two different points in an officer's career: at the end of the first commitment term and at 10 years of service. To explain variation in retention rates for officers at five and 10 years of service, the retention models use explanatory variables that have been shown in previous work to explain retention behavior. For example, previous studies, like Wagner (2016), show that women have smaller retention rates than men and that married men have larger retention rates than married women. Therefore, our retention models include demographics among the explanatory variables. They include characteristics that do not change over time, such as gender and race, and characteristics that may change from one year to the next, like marital status and having a child dependent. We also control for commissioning source, similar to Kraus et al. (2013), since officers accessing through different commissioning sources might share similar unobserved characteristics that could vary by accession source. To account for cohort-specific factors that are not observed but that might have affected retention behavior, the dependent variable matrix also includes cohort dummy variables for the entry year (entry cohort). We specifically look at the *female* and *dual* variables to provide our determination through various models. Our baseline multivariate retention model is given by the following general form

$$P(y = 1|\mathbf{x}) = P(y = 1|x_1, x_1, \ldots, x_k),$$

where *y* is our dependent variable (retention) and *x* is the matrix of our explanatory variables, to include *dual*, the indicator of whether an officer is in a dual-service marriage. Next, we discuss the retention models we have estimated and the main results.

a. Retention of Officers: Pooled Probit Model (Full Sample: Navy and Marine Corps)

The Full Pooled Regression Model (Figure 19) is the overall model containing both services. Similar to research by Kraus et al. (2013), our analysis focus dictated our approach in selecting the variables for our retention model. This baseline model assumes that retention at 60 months varies by marital status, dependent child status, service (USN versus USMC), race/ethnicity, commissioning source, and cohort year dummy. Throughout our literature review, we discuss the challenges affecting military families, both male and female officers, as they progress through the years and the benefits available to them as they stay longer in the service, taking into account the increase in marriage (dual-service and civilian spouses) along with the addition of dependent children. This lays the foundation of our retention modeling approach. Given prior work on retention of diverse military personnel in Kraus et al. (2013), we expect retention decisions at the end of the initial obligated service term to be positively related to being married and having dependent children for male officers and negatively related to being married and having dependent children for female officers. The relation might be even stronger among male (female) officers married to other service members.

Model 1: (*Retention 60 months*) = $1|X = \beta 0 + \beta 1$(*Demographics)* + $\beta 2$(*Professional*) + $\beta 3$(*Cohorts*) + u

Figure 19. 60 Months' Retention Model

(1) Pooled Regression Model

Table 16 shows the results of the 60-month retention model for the full sample containing 27,126 observations. The average 60-month retention rate for the sample is 81.1 percent. The omitted comparison group is formed by male Navy officers, white,

single with no dependent children at entry, from entry cohort 1998, and accessed through OCS or direct appointment.

Among the demographic variables, women are 12.9 percentage points (or, 15 percent) less likely to stay to 60 months than men. Asians are 4.41 percentage points (5.4 percent) at a 95 percent confidence level less likely to stay to the 60 months, compared with Whites. At entry, both, officers in married to a civilian, and in a dual service marriage are more likely to stay to the 60 months at 5.2 percentage points (6.4 percent) and 4.4 percentage points (5.4 percent), respectively, compared with single officers. Additionally, having a child at entry tends to increase the likelihood of remaining to the 60 months by 5.5 percentage points (6.7 percent) when compared with having no dependents.

Among the professional variables, officers staying in the Marine Corps are 5.1 percentage points (6.3 percent) less likely to stay to 60 months than Navy officers. United States Naval Academy (USNA) graduates are 8 percentage points (9.8 percent) more likely to retain at 60 months compared with officers accessed through OCS or direct appointment. Those grouped in the other unknown commissioning source are 6.8 percentage points (8.4 percent) more likely to retain to 60 months compared with OCS or direct appointment. Reserve Officer Training Corps (ROTC)/Navy Reserve Officer Training Corps (NROTC) graduates are 3.8 percentage points (4.7 percent) less likely to stay to 60 months, compared with OCS/Direct Appointments. This loss of ROTC/ NROTC students could be due to the four-year commitment required vice that of a service academy graduate who has a five-year commitment.

Officers who accessed in different cohort years (2000, 2001, 2002, and 2003) have similar retention rates and are all less likely to stay to 60 months compared to officers from cohort year 1998. Officers from cohort year 1999 have statistically no different retention rates as the comparison group of cohort 1998. These findings are similar to Mundell's 2016 results. According to Mundell (2016) comments, this could be a result of the economic expansion period from November 2001 to December 2007, providing more readily available employment opportunities outside of the military (p. 57).

Table 16. 60 Months' Retention Results: Marginal Effects

VARIABLES	MARGINAL EFFECTS	VARIABLES	MARGINAL EFFECTS
USMC	-0.0512***	USNA	0.0797***
	(-0.0061)		(0.0056)
Female	-0.122***	ROTC_NROTC	-0.0381***
	(0.0077)		(0.0068)
Married_NotDual_Entry	0.0515***	Unknown_Commissioning_Source	0.0678***
	(0.0058)		(0.0059)
Dual_Entry	0.0436**	Cohort1999	-0.0292
	(0.0201)		(0.0097)
Child_Entry	0.0546***	Cohort2000	-0.0731***
	(0.0081)		(0.010)
Asian	-0.0441**	Cohort2001	-0.0864***
	(0.0181)		(0.0102)
Black	0.0030	Cohort2002	-0.137***
	(0.0087)		(0.0109)
Amerindian_NatHawaiian	-0.0222	Cohort2003	-0.1505***
	(0.0175)		(0.0111)
Race_Hispanic	-0.0124		
	(0.0228)		
Other_Unknown_Race	0.0054	Mean Retention Rate	0.811
	(0.0117)	Observations	27,126

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

(2) Pooled Regression Model (Married at Entry Sample)

Table 17 shows the results of the 60-month retention model looking specifically at the subsample of those service members married upon entry. Service members who were not married at entry were removed from the sample resulting in a sample of 5,736 married officers. The 60 month-retention rate for the sample is 85.6 percent. The omitted comparison group is formed by male Navy officers, white, married not dual with no dependent children at entry, accessed in year 1998, through OCS or direct appointment.

Married women are 11.4 percentage points (13.3 percent) less likely to stay until 60 months compared with married men. Retention rates of officers in a dual-service marriage upon entry as well as those with a child dependent at entry are not statistically significant

when compared to retention rates of officers married to a civilian. Table 17 shows no statistically significant differences in race regarding being a married white male.

Those in the Marine Corps are 1.9 percentage points (2.2 percent) less likely to stay to their 60 months mark, which is marginally a lower rate than that of married Navy officers at a 90 percent confidence level are. Rates of retention for USNA graduates married at entry are not statistically significant at 60 months when compared to retention rates of officers married to a civilian, possibly because academy graduates must remain unmarried until after graduation unlike other accession programs. ROTC/NROTC graduates are less likely to stay to 60 months at 5.8 percentage points (6.8 percent), while those grouped in the other unknown commissioning source with 5 percentage points (5.8 percent) are more likely to remain when compared with retention rates officers commissioned for through OCS or direct appointment

Among cohort years, the retention rates comparison across cohort years is similar to that of the full sample 60 month-retention model. Officers who accessed in different cohort years (1999, 2000, 2001, 2002, and 2003) are all less likely to stay to 60 months when compared to officers from cohort year 1998. Overall, this model subsample does not show any statistically significant differences between rates of retention for those married to a civilian or to another service member.

Table 17. 60 Months' Retention Model Results for the Married at Entry Sample

VARIABLES	MARGINAL EFFECTS	VARIABLES	MARGINAL EFFECTS
USMC	-0.0191*	USNA	0.0274
	(0.0103)		(0.0183)
Female	-0.1142***	ROTC_NROTC	-0.058***
	(0.0204)		(0.0172)
Dual_Entry	-0.0022	Unknown_Commissioning_Source	0.0497***
	(0.0230)		(0.0105)
Child_Entry	0.0170	Cohort1999	-0.045**
	(0.0104)		(0.0203)
Asian	0.0196	Cohort2000	-0.0484**
	(0.0285)		(0.020)
Black	-0.0110	Cohort2001	-0.0914***
	(0.0159)		(0.0216)
Amerindian_NatHawaiian	-0.0408	Cohort2002	-0.1315***
	(0.0360)		(0.0219)
Race_Hispanic	-0.0097	Cohort2003	-0.1433***
	(0.0388)		(0.0221)
Other_Unknown_Race	-0.0237	Mean Retention Rate	0.856
	(0.0245)	Observations	5,736

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

b. 120 Month Retention Model

(1) Pooled Regression Model (Full Sample)

This baseline model assumes that retention at 120 months varies by marital status, dependent child status, service (USN versus USMC), race/ethnicity, commissioning source, and cohort year dummy. We used 120 months as the next career decision milestone as 120 months not only the halfway point, at 10 years of service, to a 20-year retirement, but it is also the timeframe for promotion to O-4. Unlike Mundell (2016), the score of our thesis does not include promotion models. Figure 20 presents the full 10-year retention model estimates.

Model 2: (*Retention 120 months*) = 1|$X = \beta 0 + \beta 1$(*Demographics)* + $\beta 2$(*Professional*) + $\beta 3$(*Cohorts*) + u

Figure 20. 120 Months' Retention Model

Table 18 shows the results of the full 120 months' retention model containing 27,126 observations. The average 10-year retention rate for the sample is 54.1 percent. The omitted comparison group is formed by male Navy officers, white, single with no dependent children at 60 months, from entry cohort 1998, and accessed through OCS or direct appointment.

Among the demographic variables, women are 12 percentage points (22 percent) less likely to stay to 120 months than men. The only statistically significant race/ethnicity factor among the full sample was that blacks are 4.28 percentage points (7.9 percent) more likely to stay to 120 months of service when compared to whites. Both, officers in married to a civilian and those in a dual-service marriage are more likely to stay to 10 years of service, at 21.5 percentage points (39.7 percent) and 14.7 percentage points (27.1 percent), respectively, when compared with single officers. The addition of a child by 60 months increases officers retention at 120 months by 18.6 percentage points (34.5 percent).

Among the professional variables, unlike at the 60-month retention mark, the retention rates at 120 months for Marine Corps officers is no different than that of Naval officers. USNA and ROTC/NROTC graduates are both less likely to stay at the 10-year retention point, with USNA graduates at 3.6 percentage points (6.6 percent) and ROTC/ NROTC graduates at 8.7 percentage points (16.1 percent) less likely to stay at when compared to OCS or direct appointment officers. The group containing other unknown commissioning source is more likely to stay to 120 months with 6.9 percentage points (12.8 percent) when compared with officers from OCS or direct appointment.

Similar to findings from the estimates for the 60 months' retention model, officers who accessed in different cohort years (1999, 2000, 2001, 2002, and 2003) have similar retention rates and are less likely to stay to 120 months compared to officers from cohort year 1998.

Table 18. 120 Months' Retention Results: Marginal Effects

VARIABLES	MARGINAL EFFECTS	VARIABLES	MARGINAL EFFECTS
USMC	0.0014	USNA	-0.0357***
	(0.0076)		(0.0087)
Female	-0.1198***	ROTC_NROTC	-0.0871***
	(0.0094)		(0.0089)
Married Not Dual_60	0.2149***	Unknown_Commissioning_Source	0.0694***
	(0.0073)		(0.0092)
Dual_60	0.1468***	Cohort1999	-0.0471***
	(0.0138)		(0.0114)
Child_60	0.1865***	Cohort2000	-0.0682***
	(0.0081)		(0.0112)
Asian	0.011	Cohort2001	-0.0648***
	(0.0221)		(0.0113)
Black	0.0428***	Cohort2002	-0.0531***
	(0.0119)		(0.0114)
Amerindian_NatHawaiian	0.0281	Cohort2003	-0.0573***
	(0.0231)		(0.0115)
Race_Hispanic	0.0158		
	(0.0312)		
Other_Unknown_Race	0.0261	Mean Retention Rate	0.541
	(0.0159)	Observations	27,126

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

(2) Pooled Regression Model (Married at 60 Months)

Table 19 shows the results of the 120 months' retention model, looking specifically at the subsample of those service members married at 60 months. Service members who were not married at 60 months were removed from the sample resulting in a sample of 14,134 married officers. The 120-month retention rate for the sample is 69.1 percent. The omitted comparison group is formed by male Navy officers, white, married not dual with no dependent children at 60 months, accessed in year 1998, through OCS or direct appointment.

Among the demographic variables, women are 17.6 percentage points (25.5 percent) less likely to complete 10 years of service than men. The race/ethnicity variables showed slight significance among blacks with 5 percentage points (7.3 percent) and the other

unknown race grouping with 4.2 percentage points (6 percent) with a 95 percent confidence level compared with whites. American Indians/Native American/Pacific Islanders were more like to complete 120 months of service with 5.6 percentage points (8.1 percent) and a 90 percent confidence level compared with whites. When compared to those married to a civilian, those officers in a dual-service marriage are less likely to complete 10 years of service at 2.9 percentage points (4.2 percent). Additionally, having a child by 60 months increases retention at 10 years by 11 percentage points (15.9 percent) compared to those married without a child.

Among the professional variables, and different than the results from the full sample estimates, Marine Corps officers are 3.3 percentage points (4.8 percent) more likely to retain at 10 years than Naval officers. USNA graduates are 13.7 percentage points (20 percent), while ROTC/NROTC graduates are 11.2 percentage points (16.3 percent) less likely to retain than their OCS counterparts. The group from the other unknown commissioning source is more likely to stay to 10 years with 7.1 percentage points (10.3 percent).

Officers accessed in cohort years 1999 and 2000 are less likely to stay than those accessed in cohort year 1998. Both cohorts are marginally significant, with officer from cohort year 1999 less likely to remain with 3.1 percentage points (4.5 percent) and a 95 percent confidence level and officers from cohort year 2000 less likely to remain with 2.3 percentage points (3.3 percent) and a 90 percent confidence level.

Table 19. 120 Months' Retention Results: Married at 60 Months Sample

VARIABLES	MARGINAL EFFECTS	VARIABLES	MARGINAL EFFECTS
USMC	0.033***	USNA	-0.1374***
	(0.0092)		(0.012)
Female	-0.1759***	ROTC_NROTC	-0.1124***
	(0.0165)		(0.0123)
Dual_60	-0.0287*	Unknown_Commissioning_Source	0.0712***
	(0.0154)		(0.0102)
Child_60	0.1098***	Cohort1999	-0.0312**
	(0.008473)		(0.0144)
Asian	0.0456	Cohort2000	-0.0229*
	(0.0273)		(0.0139)
Black	0.0504**	Cohort2001	-0.0177
	(0.0142)		(0.0141)
Amerindian_NatHawaiian	0.0561*	Cohort2002	0.0129
	(0.0282)		(0.0141)
Race_Hispanic	-0.0087	Cohort2003	0.0050
	(0.0419)		(0.0144)
Other_Unknown_Race	0.0415**	Mean Retention Rate	0.691
	(0.0194)	Observations	14,134

Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

2. Discussion of Results

We utilized a quantitative approach using regression analysis to examine retention at 60 and 120 months for our full, pooled sample of Navy and USMC officers. This approach aimed to better understand whether retention rates of officers in a dual-service marriage are different from retention rates of officers who are single or married to a civilian while controlling for other demographic and professional characteristics. Our results indicated that officers in a dual-service marriage are 4.4 percentage points (5.4 percent) more likely to stay to the 60 months, and they are 14.7 percentage points (27.1 percent) more likely to complete 10 years of service compared with single officers. Those officers married with a civilian spouse retain at 60 and 120 months at an even higher rate when compared to single officers, at 5.2 percentage points (6.4 percent) and 14.7 percentage points (27.1 percent) higher rates of retention, respectively. Additional analysis was conducted on a subsample using only married samples. We found that officers in a dual marriage have the same 60 month-retention rates as the officers with a

civilian spouse. By contrast, the 120-month retention rate for officers in a dual-service marriage are 2.9 percentage points (4.2 percent) smaller than those of officers married to a civilian. At both time marks, 60 months, and 120 months, officers married with a civilian spouse have a 5.2 percentage points (6.4 percent), and at 21.5 percentage points (39.7 percent) respectively, higher chance of retaining than their counterparts who are married to a service member. Having a child dependent also increases by 5.5 percentage points (6.7 percent) the likelihood of remaining in service at 60 months, while at 120 months their retention rate is 18.6 percentage points (34.5 percent) higher than the change of staying in active duty for officers with no dependent children.

IV. QUALITATIVE ANALYSIS: FOCUS GROUPS PROTOCOL, SAMPLE AND DISCUSSION OF FINDINGS

While the quantitative portion of our study allows us to identify whether individuals who are in a dual-service marriage have different retention rates than those who are not, focus groups allow us to identify current individual level attitudes, perceptions, and experiences specific to dual-service spouses that may influence their retention decisions. The purpose of focus groups is to "yield qualitative data obtained from relatively small numbers of respondents who interact with one another" (Stewart & Shamdasani, 1990, p. 17). The intent is to promote self-disclosure (Krueger & Casey, 2000, p. 7). During these group discussions, answers from one participant can stimulate ideas and thoughts from the others, allowing for broader exploration than may be obtained in individual interviews (Krueger & Casey, 2000, p. 40). Two focus groups were conducted to gain an understanding of issues faced by dual-service individuals that could not be explained by descriptive statistics, numerical data, or regression analysis. This chapter describes the procedures used to ensure quality data collection and analysis, and presents the results as themes generated from the focus group data.

A. SAMPLE SELECTION

1. Recruiting

The primary method for soliciting participants was an announcement posted on the NPS student daily muster Web page (Appendix A). The researchers also provided faculty an email announcement to share with students across departments (Appendix B). Additionally, the researchers informed a minority of professional contacts known to be in a dual-service marriage of the focus groups.

2. Population

For ease of conducting the focus groups, discussions were held at NPS. We acknowledge that officers in this sample may be inherently different from the officer population at large because they are a selected group, pursuing funded graduate education. Due to administrative, logistic, and financial constraints limiting our access to

other installations, the NPS population was the most appropriate for the scope of this study because of access to volunteers and the ability to conduct the groups locally. Convenience sampling of this nature is acceptable because of the generalizability of focus group results and because the sample is matched to the research objectives (Stewart & Shamdasani, 1990, p. 53).

3. Size

The target sample size was six to eight per group. Recommended focus group size varies by both purpose and reference. Fern (2001) recommends eight, plus or minus two, depending on the researcher's goals (p. 160). Stewart and Shamdasani (1990) recommend a target of six to 12 participants to ensure a dynamic discussion that is still controllable by the moderator and to slightly over-recruit because two or more volunteers will likely drop out (p. 57). Krueger and Casey (2000) focus on the characteristic of the group itself. The primary characteristic of the groups in this study is academic in that the focus is on quality; rigorous, systematic, and defensible content analysis; openness; and peer review and publication. An academic approach may study policy, as may a public or nonprofit approach, which focuses on policy, employee satisfaction, and morale. Both approaches are similar and for both the optimum number is six to eight participants (pp. 160–164).

4. Group Composition

a. Gender

Focus groups separated by gender were appropriate for three reasons. First, we wanted individuals whose spouses also volunteered to participate to be able to answer questions freely and share unique perspectives as individuals without having to defer to or seek consensus from their spouses. Second, gender differences in both behavior and disclosure exist that may impact the dynamic of focus groups (Stewart & Shamdasani, 1990, p. 37). Social norms may shape what is acceptable for males and females to disclose. In addition, females tend to disclose more information than men do. We make up for this potential slightly by having a female moderator as the target of the disclosure, which yields more self-disclosures from males than a male moderator would (Fern, 2001, pp. 37–41). Lastly, we anticipated sensitive issues, such as family planning, could arise

and sought to create a level of comfort free of gender bias or stigmatization that may cause some individuals to disclose less information. For intimate information, gender is an important characteristic (Fern, 2001, p. 181).

b. Homogeneity

Fern (2001) recommends smaller homogenous groups when studying specific population segments that might have unique perspectives. While differences by service branch are of interest in our study as they unique in their own cultures, we believe that similar experiences by gender could be more significant than by branch and that the homogeneity of gender would better lend to similar responses and experiences from participants. Homogenous groups also are more likely to be compatible, cohesive, and interactive than heterogeneous groups (Fern, 2001, p. 17).

Mixed groups may lend to greater conformity, which can stifle diversity of opinion; therefore, homogeneity is sought to yield more dynamic ideas from each group (Stewart & Shamdasani, 1990, pp. 44–45). Again, in this study, gender over service branch was chosen.

B. PROTOCOL

The researchers developed a set of six questions before conducting the focus groups. We included an opening question to put the group at ease and get the individuals talking, an opening question to gauge their sentiment toward the study topic, two key questions regarding the benefits and challenges experienced in a dual-service marriage, an all-things-considered question to identify their most important issue, and an insurance question to ensure nothing was overlooked. Questions were clear, short, and open ended to allow respondents to answer freely and in detail. Questions were arranged in ascending level of importance, as later responses are often critical (Krueger & Casey, 2000, pp. 39–46). Additional questions were added to the list if time allowed for more discussion, with the most important questions chosen for the protocol first and the least important last. Questions also went from general to specific (Stewart & Shamdasani, 1990, pp. 60–67) Appendix C provides the protocol and script.

1. Procedures

a. Setting

Focus groups were held in a conference room at the Graduate School of Business and Public Policy at NPS. The setting was selected for its central location, which allowed for attendance during business hours, and for its size, privacy, and comfortable atmosphere (Fern, 2001, pp. 18–19; Krueger & Casey, 2000). The horseshoe-shaped, open-centered table allowed the moderator to close the group into a circle. This arrangement provided adequate interpersonal distance, ensured members could see each other, prevented dominant members from emerging, and facilitated discussion. The relatively nondescript room minimized distraction, and its size promoted intensity of interaction (Stewart & Shamdasani, 1990, pp. 47–49).

b. Moderator

The moderator for both groups was also a researcher. To minimize the potential for moderator bias, both researchers were present for both focus groups. The researchers have significantly different professional and personal backgrounds and experiences. One researcher was the moderator; the other assisted by observing as a second opinion and interjecting ideas or providing questions and comments to the moderator during the discussion (Fern, 2001, pp. 94–95). Using a researcher as a moderator for this study was appropriate because of the researcher's background as both a military officer and a member of a dual-service marriage. Sharing this background increases cultural sensitivity to and relation to the participant population that an outsider may lack (Fern, 2001, p. 79). This is a key point because, as Krueger and Casey (2000) explain, "the most critical moderator skill is to develop a trusting environment" and "participants are often more comfortable with a moderator who seems like them or is someone they trust" (p. 164).

c. Discussions

The focus groups took place in December 2013. Two groups were conducted, one all female and the other all male. Upon participants' arrival, the moderator introduced herself and her research partner. Lunch was made available for the convenience of the

volunteers, as they had sacrificed time between classes during the lunch hour of a busy week before final exams (Stewart & Shamdasani, 1990, p. 59). The moderator

- gave an overview of the study;
- explained the procedures for protecting confidentiality;
- explained how participants' comments would be used in the study;
- asked permission to record the session and explained the method of audio data storage;
- read and explained the informed consent form (Appendix D), which the participants completed and signed before recording began;
- asked permission to use first names to ease the professional transcriptionist's task and to foster openness between participants across services and ranks; and
- requested that acronyms and jargon be avoided when possible or, if used, be explained to facilitate understanding of members from different branches or communities.

Each volunteer introduced him- or herself from a set introduction sheet (Appendix E) and provided name, rank, service, time in service, number of years married, spouse's branch and rank, number of children, occupational specialty, and whether currently collocated with his or her spouse. After introductions, the moderator, using the protocol and script, asked a series of questions regarding the benefits and challenges of being in a dual-service marriage and for policy improvement recommendations. Follow-on questions were asked for clarification or to maintain momentum and facilitate the transition of the discussions. The moderator participated minimally in the discussion and was intentionally nondirective to allow the participants to discuss the issues and topics important to them (Fern, 2001, p. 85; Stewart & Shamdasani, 1990, p. 11). The moderator used a conversational tone to create an informal social atmosphere. Additionally, she used gaze, eye contact, and facial expressions to convey empathy and

positive reinforcement to participants, and reflective listening to clarify responses and keep the flow of discussion (Fern, 2001, pp. 81–84).

Finally, the moderator summarized the proceedings, asked if there were any additional questions, reminded participants to maintain the confidentiality of the group and the comments made by participants, informed participants of the estimated completion date of the thesis, and thanked them for their time. The researchers sent a follow-up email thanking the volunteers for participating and inviting them to contact the researchers if they had further questions.

C. PARTICIPANT PROFILES

Initially, 17 personnel volunteered for the study and were screened for the focus groups. One volunteer was an enlisted member married to an officer. For the sake of group homogeneity and because the quantitative analysis focused on officer retention behavior only, this volunteer was not included in the study, though this individual's experience could offer another dynamic and be an area of further research.

Stewart and Shamdasani (1990) warn that the most difficult challenge in coordinating focus groups is the de-conflicting of the schedules of eight to 12 busy people (p. 59). The attempt to achieve maximum participation was made by comparing periods of volunteer nonavailability and scheduling groups on days that lent to maximum participation. Once dates and times were set, confirmation emails were sent to the participants, and a reminder email was sent within 24 hours of the event (Stewart & Shamdasani, 1990).

The final sample includes 13 dual-service active duty officers. The Marine Corps was slightly underrepresented due to scheduling conflicts that caused three USMC volunteers to become unavailable. (One female had to pick up her sick child at the CDC and canceled just minutes before the session, one male canceled because he was assisting his spouse in preparing to PCS, and another male had to make up an exam missed due to an earlier child-related event.) The lack of participation of these three officers due to family-related issues supports Smith's claim that maintaining work/family balance leaves

individuals time for little else (Smith, 2010, p. 137). If they had participated, each group would have had eight members and a more robust Marine Corps representation.

Numbers in focus groups are too small to be representative of a population, but we include demographic information here to highlight characteristics of the participants. All had at minimum four years of service. All had also incurred additional time due to educational payback to follow the current assignment at NPS so they at least reached their first major continuation decision point. While the quantitative analysis focuses on cohorts with commission dates between FY 1998 and FY 2003, the focus groups were not restricted by commission date. Total time in service ranged from 4.5 to 13 years, with an average of 8.2 years. Participants included members of pay grades O-3 and O-4 (see Table 20). All participants were the same pay grade as their spouses except one who was one grade senior to their spouse. A comparison of USN and USMC ranks, grades, and time in service requirements to promote to each rank is provided in Appendix. F.

Table 20. Representation by Pay Grade and Gender

	# of Officers	Women	Men
O-3	9	4	5
O-4	4	3	1
Total	**13**	**7**	**6**

To protect the anonymity of participants, general categories are assigned and presented by gender and total numbers in Table 21. Navy warfare communities are grouped by surface warfare, aviation, and support (everything else). Distribution is relatively even. Marine military occupational specialties (MOSes) are grouped by ground (combat arms), aviation, and support (everything else). All Marine participants were in support specialties, a limitation of the sample. Appendix G contains an overview of specialties within each grouped category.

Table 21. Representation by Warfare Community, MOS, and Gender

		# of Officers	Women	Men
USN	Surface	2	1	1
	Aviation	3	1	2
	Support	4	2	2
	Total USN	**9**	**4**	**5**
USMC	Ground	0	0	0
	Aviation	0	0	0
	Support	4	3	1
	Total USMC	**4**	**3**	**1**
Total Officers		**13**	**7**	**6**

Seven participants were currently geographically collocated with their spouses at NPS; six of these seven participated in the focus groups, and one participant's spouse did not participate. Thus, three married couples participated. The remaining six participants were not collocated (Table 22). One participant was a Navy officer married to a Marine Corps officer who was geographically separated. One couple was about to be geographically separated for several months due to PCS orders.

Table 22. Colocation Status

Co-located	# of Officers	Comment
Yes	7	NPS
No	6*	*1 inter-service

The length of marriage, in years, for participants ranged from six months to 10 years, with an average of 3.3 years. One participant is in a second dual-service marriage, having been divorced from a previous inter-service spouse (Army). All others were married within their service. Only three participants, two of whom were married to one another, had any children and they only had one, for an average of 0.23 children per officer. The children's ages ranged from three to five years. However, three of the female participants were pregnant at the time of the discussion. Appendix H illustrates comprehensive participant profile information.

D. ANALYSIS OF FOCUS GROUPS RESPONSES

Focus groups were recorded and transcribed verbatim. The transcripts were read several times for familiarity with the data. Transcriptions were then de-identified by replacing the participants' names with codes indicating their branches, gender, and a number. To further protect participant privacy, highly specific personal information such as a spouse's unit or location contained in quoted responses was generalized and indicated by brackets. The data was cleaned, transcription errors were corrected, and participants were de-identified through the removal of names and highly specific information. Specifically, specialties were put into main categories of ground combat/ surface warfare, aviation, and support.

A transcript-based analysis was conducted for rigor. Transcripts of the discussions were comprehensively analyzed, both systematically and sequentially, to identify themes. To avoid premature conclusions based on researcher bias, a neutral and detached approach was taken using verbatim coding, and themes were not identified until all text was coded (Krueger & Casey, 2000, pp. 125–141).

Initial, first cycle coding was conducted line by line, specifically using verbatim "in vivo" open coding (Saldana, 2013) in NVivo 11 qualitative data analysis software (QDAS) to saturation (NVivo qualitative data analysis software, Version 11, 2015).

Responses with the same key word or phrase were coded together, and new key words were placed under a new code. Three preconceived categorical codes were also included, specifically retention decision factors at the first career and midcareer service points and policy recommendations that address the specific needs of the dual-service population. These were added to support research question 3 regarding at what point dual-service individuals leave the service, and to keep with the purpose of the focus groups to identify retention and exit decision factors to assist in the interpretation of the quantitative analysis results. The focus group protocol included questions that directly asked participants to speak to these topics only after questions were asked about dual-service marriage to allow their responses to be free flowing and not prompted. Third-

party confirmation coding was conducted to validate the process and provide additional rigor and quality control. The first cycle resulted in 624 codes.

Second-cycle coding was conducted using an inductive approach. Focus coding was conducted based on the 38 dominant, most frequent codes to generate conceptual themes. The 38 codes were identified. Codes with nearly identical wording were consolidated. A hierarchy chart of the 23 most common codes of the original 38 was developed to give a visual representation of the codes (Figure 21). This was very helpful in identifying redundancy or related codes that could be further consolidated or grouped by not just looking at the number of references or using intuition. An example was "stationed together" being merged with "co-located," as they have the same general meaning. In vivo codes that fit under the three preconceived categorical codes, specifically retention drivers at the first obligated service point and midcareer decision points and policy recommendations were included in the generation of the conceptual themes and in the negative case analysis.

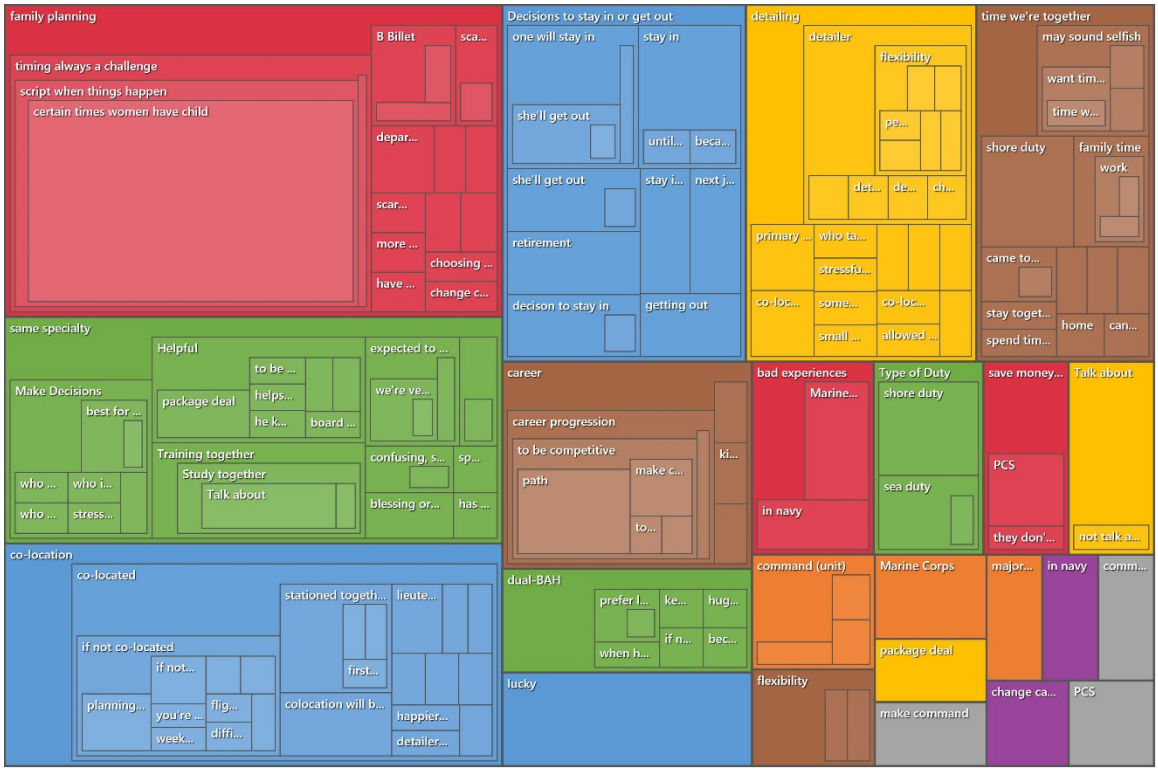

Figure 21. Hierarchy Chart by Coding References of Most Common Codes

The most frequent codes were then examined for how they related to each other to identify conceptual themes. Four conceptual themes emerged. A negative case analysis was then conducted for all codes using a constant comparative method (Lincoln & Guba, 1985). Codes that fit into one or more themes were included, and codes that did not fit were excluded. Deviant cases were examined and included in the appropriate themes as counterpoints that support the theme. Second-cycle coding and negative case analysis were conducted using NVivo 12 QDAS (NVivo qualitative data analysis software, Version 12, 2018). In vivo codes that fit under the three preconceived categorical codes, specifically retention drivers at four and 10 years of service and policy recommendations, were also included in the generation of the conceptual themes and in the negative case analysis.

E. RESULTS AND DISCUSSION

The following section contains results from two focus groups totaling 13 individuals. The four conceptual themes emerged include that

- career viability and family stability are in competition;
- planning and adaptation are continuous processes, with subthemes that planning heavily revolves around (a) colocation status and deployment, and (b) family planning, with additional subthemes that the competition is a particular challenge for (a) surface warfare and aviation communities, and (b) women, and (c) that pregnancy stigma additionally impacts women;
- flexibility and support are keys to success and often attributed to luck, while many face uncertainty, specifically (a) leadership (service and command) support, and (b) detailer and monitor support, and (c) milestones are scripted while (d) uncertainty fosters fear;
- colocation and compensation are key interdependent policies, with the subtheme of colocation as a retention driver.

Three preconceived themes were derived directly from focus group questions and include first-term (at the four- or five-year mark) decision factors, and 10-year retention decision factors, and policies that may address challenges faced by the dual-service population. The purpose of the framework is to support the research question, which was to identify at what point dual-service members exit the service, and why.

1. Career Viability vs. Family Stability – Competing Interests

Overall, career viability and family stability are largely at odds due to the set path for a competitive career. Participants expressed frustration with having to compromise between career and family. The conflict was largely attributed to a military career's rigid timeline and path, and time requirement, which does not lend itself to family stability and interferes with family planning and family life at home as spouses. Choosing between a

military career and family is a challenge because overall service members are loyal to both, want to do well in both areas, and feel conflicted. There are, however, aspects of being in a dual-service marriage that were cited as mutually beneficial.

a. Career Viability – The Challenge of a Set Path

To have a successful career, specific milestones on a set path must be met to be competitive. The metric of success is perceived largely as whether an individual is promoted, specifically to O-5 or O-6, and is selected to command a ship or organization. Deviations from the timeline are frowned upon and perceived to hurt competitiveness in one's career, specifically for selection to command.

For the Marines, milestones include spending time in the fleet (the operating forces) and completing a B-billet, a job outside the operating forces. Sometimes a deviation from the path is not the choice of the service member but is based on the needs of the service, and family can be an additional variable that conflicts with the set path.

For the Navy, milestones include jobs rotating between sea duty in key job stationed aboard specific ship classes and shore duty. This strict rotation creates challenges if one is not at the same point on the career path as his or her spouse. The Navy path, particularly for the surface warfare community, includes returning to school to study for the next milestone, and serving as a department head on a ship.

b. Family Stability – Being a Good Spouse and Parent

Participants did not want to choose between career and family because they wanted both without compromise. They wanted to do their job and still be a good spouse and parent. With the rigid career path, some felt they must choose their career to be competitive, which is difficult and causes guilt. When choosing career first, one of Smith's (2010) adaptation strategies, some felt guilty and as if they were making a deal, but when choosing family, some felt selfish.

Time apart when career takes precedence can lead to not having time to enjoy being married when the timeline allows spouses to be together. Because of the sea/shore duty rotation, there is pressure when on shore duty to have a child. Demonstrating

commitment to one's spouse is a priority, but following through with commitment is difficult when work calls, and often wins.

Being a good parent is as important as one's job, but can be detrimental to career if family takes one away from work, which participants understood. To handle career and family equally well is not practical to certain points in a career, particularly in aviation. In one case, the prescribed career path including department head tour and additional deployment was determined to come at such a cost to family that the couple would each change career fields, an example of Smith's (2010) family-first strategy.

c. Benefits of Dual-Service Marriage

Though the challenges of the conflict between career viability and family stability were pronounced, benefits were cited to being in a dual-service marriage. These included mutual understanding of duty, communication, opportunities, and shared experiences. Understanding what the other does and having shared experiences were described as helpful. Communication was described as being easier because of common language and an understanding of the military system.

2. Colocation and Compensation – Key Interrelated Policies

Colocation and compensation emerged in each group as important aspects of a dual-service marriage, and a relationship between these was identified. Colocation emerged as a dominant, widely discussed issue and a retention driver for each group. Compensation was identified as a significant benefit to being in a dual-service marriage, specifically when collocated. Both are presented in depth independently and then as they relate to one another.

a. Colocation

Colocation emerged as a significant factor for decisions made by individuals in a dual-service marriage. Separation from deployments was discussed as a challenge, though the participants acknowledged that deploying is a normal part of military service. Their concern with deployments focused more on the deployment cycles. Participants expressed either gratitude when cycles matched their spouse's, knowing that after several

months of separation they would have several months together, and frustration for the times when the cycles did not match. When children were part of the equation, a staggered deployment schedule was recommended.

While separation during deployments was mentioned as a challenge, it was not as significant to the participants as separation by orders to different duty stations. Separation by orders causes significant challenges to include a strain on both the relationship and finances. A female Marine major asserted that getting officers, especially the younger ones, on the same rotation is the key to success that can solve many issues caused by separation.

b. Challenges When Not Collocated

(1) Family Instability

Separation by orders was cited as a significant challenge for maintaining a relationship or running a family while contending with the divorce rate.(As discussed in Chapter II, dual-service men and women both have higher divorce rates than their counterparts who are married to civilians.). Separation was cited as a factor in destroyed relationships, lost work, and lost human capital. Geographic separation poses a challenge for starting a family as well. One participant cited the geographic separation from her previous spouse as a contributing factor to their divorce. The participants acknowledged that the more senior they were in their career, specifically at the O-5 level and when slated for a command tour, the more likely they would face geographic separation for at least two years, which was a concern.

(2) Cost in Money and Time

When couples are not collocated, a lot of time, money, and effort are spent traveling between duty stations. The service member who was separated from his or her spouse by orders receives a monthly FSA of $250. While grateful for this, several participants explained that this is not enough for even one plane ticket to see their spouse at a reasonable interval, and therefore the service members pay significant out-of-pocket expenses for travel. It was also suggested that while this allowance does not provide

much benefit to the service members, it adds up over the course of time for the services, and that if couples were collocated, the services would not only save money but would also have happier and more productive workers. Traveling between duty stations costs a significant amount of time and often includes complications such as flight delays and cancelations.

(3) Retention

Colocation was mentioned by several participants as a critical factor in their decision for continued service. One participant had very good support for her marriage from the Navy to collocate her with her spouse, which contributed to her decision to continue serving, while the lack of support from the Marine Corps to collocate her husband led to his decision to exit the service. Multiple participants cited colocation as the primary decision factor for continued service at future decision points. For two Marine Corps majors who planned to stay until retirement, the only factor that would cause them to exit before retirement would be if colocation became a detrimental problem for the family.

c. Compensation / Economics/Benefits

The overall sentiment from participants regarding compensation was favorable. Job security, pay, health benefits, retirement, and housing allowances were all cited as positive aspects of being in a dual-service marriage. Participants felt they were well compensated for what they do. They viewed both having a steady job and not having to worry about the economy too much as a good deal. The pay scale and allowances were described as good. The prospect of both service members receiving a retirement pension was very attractive, as when they retire they will be paid as though one of them is still working, which would open opportunities. One benefit cited by a male naval officer was the early retirement the Marine Corps was offering that he wished the Navy had because his wife would potentially take it.

Because both members receive their own healthcare, the participants appreciated not having to pay out of pocket for TRICARE insurance as they would if one spouse were a civilian. Of note for one of the female officers was that she appreciated being her

own sponsor for medical purposes because friends of hers who were civilian military spouses or who had exited active duty experienced more trouble getting medical help than people who are in the military.

Dual-service members appreciate that each receives their own BAH, whereas a service member with a civilian spouse receives a slightly higher housing allowance for having a dependent. Dual-service members are not listed as dependents for the other member. When a permanent change of station (PCS) occurs at separate times, each dual-service member receives a dislocation allowance to offset moving expenses. The dual allowance is helpful when splitting a household and having to run two households.

d. Colocation and Compensation Interrelated

The participants in both groups discussed that the dual income is especially beneficial when collocated because they are able to use the spouse's additional income for savings, for children's education, and for flexibility when they do need to split households. Maintaining two households in separate geographic locations can be financially taxing, especially when there is a significant cost of living difference between the locations, whereas having the dual income allows couples to live stress free. Individuals in both groups stated that at some point no amount of dual income is enough to make up for the sacrifice of being separated from family. One male Navy officer mentioned the services could save money if they looked at the couples as a unit because they could pay just one spouse BAH at the rate with dependents instead of two full allowances. He felt that living with his wife would be preferable to having the extra money. A male Marine major recalled the services used to pay BAH that way and stated if it were that way, he and his wife would have probably not have gotten legally married because the pay difference would be large. He did agree that the services could save money on PCS costs if the dual-service couples were treated like a unit, but from his experience, he did not believe the services care about saving money. He also agreed it is challenging to live in separate locations.

3. Planning and Adaptation: Continuous Processes

Planning for and adapting to the requirements and demands of military service and family obligations is ongoing for dual-service couples. Topics include colocation and separation, deployments, career progressions, continued service intentions, and family planning. Uncertainty creates challenges in planning. If not in the same place as each other in their careers, decisions must be made without complete information, such as whether a spouse will be selected for retention or a formal school, which makes planning difficult. Furthermore, when lead-time for orders is short, planning for finances, housing, and household goods shipment is challenging, particularly if orders lead to separation and the subsequent splitting of households and the family. Staying collocated as much as possible is a top priority that comes up frequently in conversation. Couples must consider what they will do next and communicate with the detailers and monitors early on. Also frequently discussed is the challenge during assignments in deciding who takes the career-enhancing job when such a job is not available for both service members who are seeking colocation. Dealing with this can be stressful and even feel like a game at times. The service members also must navigate the timing of key billets such as command tours and understand that they must consider staggering, or even giving up, these orders for the sake of family stability. Some couples will consider whether to stay in the service or perhaps take a lateral move into another community. In some cases, the participants had already discussed and decided that the best for them as a couple would be for one or both to exit the service.

Family planning and its timing is always a challenge. There is a perceived script of when starting a family should happen, ideally when collocated and on shore duty or in a B-billet. It is hard to start a family when spouses are geographically separated. Because of geographic separations and deployments, there can be pressure to have a child when a couple is collocated on shore duty or on a B-billet when they may just want to enjoy living together with each other. In addition, B-billets are not always conducive to family planning. Some, such as drill field duty, require demanding hours, while others require travel to include on ship where women cannot be pregnant. Of note, three of the seven

female focus group participants were pregnant, two of whom were collocated with their husbands and one was not.

Just because a couple carefully plans when to start a family does not mean nature supports their timeline. One couple shared the challenge of having a miscarriage only to have to go on birth control and deploy for a year, which resulted in a two-year delay in having a child. Both male and female participants were mindful of the impact of unplanned pregnancies on a command from an operational perspective, and to unit morale. They did not want the women to have to be changed out of a key job before a deployment and thereby disappoint their commander.

Women face additional challenges, especially for those in surface warfare and aviation. Both men and women recognized the stigma associated with pregnancy. One participant recognized the stigma she feels being pregnant and the only female officer in a room full of men. New mothers also feel the awkwardness of needing more time during lunch to pump breast milk when men only need a short time. Pregnancies that preclude a woman from serving on sea duty or deploying are looked upon negatively. Whether unintended or not, many service members see a pregnant female as someone who is trying to avoid a deployment. One male officer was scheduled to go on shore duty only to have to stay on sea duty when a female division officer gotten pregnant six weeks before deployment, causing him to spend 40 months on sea duty. A male Marine officer deployed and his unit's logistics officer switched out two weeks prior to deployment due to pregnancy. The men admitted the frustrations associated with women not deploying, and recognized that the women's careers would subsequently suffer in evaluations and from negative opinions; at the same they time would not want their wives to be judged negatively if in the same situation. A female surface warfare officer expressed frustration with the number of women who get pregnant and get out of deployment and the resulting stereotyping and animosity. She understood the challenge of discouraging pregnancy on sea duty but felt her community was too lenient.

For aviators, there is no point they believe is a good time to have a child, and a perception exists that fitness reports and evaluations will suffer from time away from the job. In the surface warfare community, one participant was so afraid of having a baby

with the risk of not being stationed with her husband that she planned to get out when her obligated service was complete. Other challenges for women in general include that the delay of having children for the sake of their jobs does not make it easier to have children, and the need to get back in shape to be physically fit and to stay competitive. They noted the timeline to return to fitness varies by service.

4. Flexibility and Support vs. Luck and Uncertainty

Common within the discussions were the topics of flexibility and support, or lack thereof, for considering the marriage of dual-service couples during the assignments process or deployment cycles. Participants who were collocated by detailers or monitors (the assignments coordinators for the Navy and Marine Corps, respectively) or whose leaders worked with them to synchronize their deployments frequently described themselves as lucky. Being in a smaller community or in the same community was described as helpful. Those who experienced frustration and bad experiences with detailers and monitors, or their leadership, expressed the influence this had or would have in regard to plans of career commitment. Rank was mentioned as a factor. A perception exists that the marriage of junior officers, specifically at the O-1 and O-2 levels, are not considered by the monitors because they are outranked, and that marital status is not considered until they are more senior.

Larger communities such as surface warfare were described as not supportive, whereas in smaller communities, leaders and assignments personnel knew the participants and often considered them as a unit. Culture was mentioned as a cause of lack of support. One female Navy lieutenant in a support community praised the support she received from her detailers and attributed it to her decision to remain in the Navy. She attributed the lack of support from her Marine Corps spouse's command and monitor to the male-dominated culture of the ground combat arms community and felt they did not recognize her as an officer but just as a spouse.

The rigid career path milestones and set timelines were also a source of frustration, particularly for the surface warfare and aviation communities. Flexibility was described as desirable, specifically to allow an officer to delay or expedite transfer to

synchronize with a spouse in assignment type such as sea or shore duty, or to ensure colocation. Uncertainty was also mentioned frequently. Managing two careers, a household, and children requires detailed planning. Not knowing what is next, or having little time to prepare to move or split households, is a source of stress. The participants stressed the desire for more consistent support from leaders and assignments personnel and to be given more advance notice of what is next to allow appropriate planning to occur.

5. Retention Factors at Key Decision Points

Participants were asked about their decision factors for continued service at two key points. The first point was at the end of their first period of obligated service. For most, this was at four or five years, depending on the commissioning source. All but one participant had reached that mark, and that one was six months shy of that point. The second key point was at 10 years of service. Three participants had reached that point and were asked what drove their decision to stay in at10 years of service and what would drive their future commitment. The 10 participants who had less than 10 years of service were asked what would be the deciding factor for continued service at that point.

The 13 focus group participants indicated their intention for continued service as follows:

- 7 females
- 1intended to exit the service (1 Navy)
- 4 intended to continue (2 Navy, 2 USMC)
- 2 were unsure (1 Navy, 1 USMC)
- 2 expressed their spouse would exit (2 Navy)
- 3 expressed their spouse would continue
- 1 was unsure of spouse intent

- 6 males
- 2 intended to exit the service (2 Navy)
- 1 requesting a lateral transfer
- 3 intended to continue
- 3 expressed their spouse would exit
- 3 expressed their spouse would continue

a. First-Term Decision Factors

For men, two knew they would make the military a career when they came in or very early on. The Marine major stayed in because career was his intention, and the Navy lieutenant SWO for the pay and allowances with the goal of retiring at 20 years of service.

One Navy lieutenant in a support specialty stayed in because he lateral moved out of the surface warfare community as his time in it was not enjoyable. Two Navy lieutenants had to stay in at the four-year mark due to aviation obligations. Of them, one had also been selected for an enlisted-to-officer commissioning program at four years of enlisted service, which included a lateral move out of the nuclear community. Another Navy lieutenant was undecided at the four-year mark and chose to stay in to see how another tour went.

The women voiced their decision factors more strongly than the men did, particularly as related to job satisfaction and service support. One female Marine major and one captain, both in support specialties, cited intangible aspects for staying that included pride accomplishments, loving their careers, and the love of being a Marine. They wanted to continue to serve for the sake of serving. Another female major cited self-reliance—to be neither reliant on a man nor be a dependent wife in case of death or divorce—as very important, and she stated successful colocation had also been a helpful factor.

One Navy lieutenant commander in a support specialty stated she decided early on that she would stay in until it became painful, and so far, she had been satisfied with her experience. A Navy lieutenant in a support specialty stated that because the Navy was extremely supportive of her relationship, she had a great experience, which led her to stay in the service. Conversely, she cited the Marine Corps' lack of support for her marriage as the reason her captain spouse would exit the service after his current assignment. A Navy lieutenant SWO was finishing a five-year commitment and nearly certain she would finish her current orders and get out due to bad experiences in the surface warfare community on her last ship, no desire to be a department head, and the risk of separation from her husband if they had a baby. She stated that in the off chance she stayed in, it would only be if she could lateral move out of the surface warfare community. Finally, one Navy lieutenant aviator was still on an eight-year pilot commitment.

b. Midcareer Decision Factors

For decisions at 10 years of service, or the midcareer mark, men cited compensation as a driving factor to stay in, with some including colocation and family stability as a contingency, while the women focused on job satisfaction and commitment as leading factors to stay in and colocation issues as a consideration for exiting. These findings support those found in previous research as cited in Kraus et al. (2013).

When the male participants discussed decisions at the 10-year mark, four expressed intention to stay until retirement, which was a key factor for them. Two had already reached 13 years of service, both of whom indicated they would stay in for the retirement pay, but both expressed family as a priority. The Marine major stated if the colocation and family planning situation became too much of a challenge, for example if day care were not available, that he or his spouse would consider exiting the military or taking early retirement, if offered. The prior-enlisted Navy lieutenant aviator stated that he would stay in but that colocation was a priority, and that he and his spouse had submitted lateral move requests to support family planning. A Navy lieutenant SWO, with six and a half years of service, shared that he and his spouse had already decided by the first decision point that he would stay in for the pay and allowances, and she would

get out for family planning. Another lieutenant with five and a half years in a support specialty also stated the retirement pay was a driving factor for continued service.

Two participants stated they would wait to see how the next assignment process and job went, but both believed they were likely to exit the service. Both were Navy lieutenants, and they indicated that detailing and colocation would be their decision factors. One was an aviator with five years of service; he was currently fulfilling an aviation obligation, and he stated he would likely exit the service because his wife's job satisfaction was higher than his was, and his was not high enough to warrant being separated by orders from his wife. The other was a lieutenant in a support specialty with five and a half years of service who stated the bad experience he and his wife had had thus far with detailing and colocation was driving both of them out of the Navy; he expected both to exit at the 10-year mark or sooner.

For the female participants, four expressed their intention to continue, three of whom had passed the 10-year mark. The Navy lieutenant commander in a support specialty with 11 years of service had decided early on in her career to stay until it was painful, and she had successfully been collocated with her spouse, who since retired from the Navy. Her current assignment was the first time she was apart from him. One Marine major with 11 years of service strongly wanted to keep her identity as a female Marine, wanted to see the next rank, and felt the time had gone quickly so the next 10 years would also. She also stated the decision was based on what was best for the whole family and that she was supporting her husband, who also wanted to stay in the Marine Corps until retirement. The major with 13 years of service cited job satisfaction—how much she enjoyed being a Marine—as the driving factor at 10 years. Because she and her spouse were in the same specialty, they had been successfully collocated throughout their careers, which she said helped tremendously. She acknowledged her biggest fear would be separation as lieutenant colonels, especially if selected for command in different hemispheres. A Navy lieutenant in a support specialty with five years of service praised the Navy's support of her marriage and attributed it to her favorable experience thus far; she had no intention to exit at the 10-year mark.

Two female participants were unsure of their intentions at the 10-year mark. The Marine captain in a support specialty with five and a half years of service stated future decision points would be based on how well the Marine Corps collocated her and her spouse because their separation had been a challenge. They would be an all-or-nothing couple and if not collocated both would exit the service because, despite her strong identity with and passion for Marine Corps service, living with her husband was her priority. The Navy lieutenant aviator with seven and a half years of service would reach her aviation obligation at the 10-year mark, at which point collocation would determine whether she would continue.

c. Summary of Retention Factors

The groups expressed varied reasons for deciding to continue or exit the service. At the first decision point, the participants were more ambivalent about career intentions. Only two men stated they knew they would stay in for a career, and one woman knew she would get out. For the midcareer point, the group was clearer in their priorities and career intentions. For the women, identity and job satisfaction were key to their retention decisions, whereas for the men, the financial benefits from compensation and retirement were cited. For both the men and women, colocation was a priority for the future and, if unable to be co-located, the majority would consider exiting the service.

6. Policy Recommendations

The last question asked of focus group participants was, bureaucratic or financial limitations aside, how policy could be modified to address their most difficult challenge. Flexibility of assignments, career milestones, time-on-station requirements, deployment cycles, and school assignments were mentioned. Benefits options including off-ramp/on-ramp opportunities such as sabbaticals and early retirement to make up time in cases delayed family planning were discussed. More advanced notice, preferably a year out, was requested to allow planning for moves and separations. Education of policymakers and commanders on dual-service issues to increase their awareness and understanding was requested, in addition to a review of dual-service-related policies across the services to identify and facilitate best practices. Lastly, one female lieutenant stated the surface

warfare community was too lenient on unintended pregnancies that limited women's deployment availability, saying it was unfair to other officers who did not get pregnant and were able to fulfill their sea duty.

F. SUMMARY AND DISCUSSION OF FOCUS GROUPS THEMES

The content analysis of the focus group transcripts yielded several interrelated themes that may impact retention behavior.

Dual-service couples enjoy certain benefits such as shared experiences and common understanding. However, conflict occurs because balancing career viability and family stability is challenging, especially with a set career path, particularly in surface warfare and aviation. Participants expressed frustration and guilt at having to compromise because they are loyal to both the service and their families and want to do well in both areas.

Colocation and compensation emerged in each group as important and interrelated aspects of dual-service marriage. Colocation was a dominant retention factor for each group, and compensation, particularly dual BAH, was a primary benefit when collocated. Money was not as important as collocation, largely due to the time and money lost when separated by orders.

Flexibility in assignments timing and career milestones, and support from leadership and assignments personnel, are key components and are factors in career commitment. Those who received support and who were collocated or synchronized with their spouse felt lucky. Those who did not were frustrated, and in some cases, the result was their decision to exit the service. Frustration was more pronounced in larger communities.

Reasons to continue in or exit the military varied. Job satisfaction or indecision mixed with curiosity prevailed at the initial service obligation. Lateral moves also kept some in uniform. At the midcareer point, intentions were better defined. Colocation was or will be a driving factor for the majority at that milestone, while the other pronounced factors were job satisfaction for women and benefits and retirement for men. For those

who decided to exit or were undecided, frustration with colocation in the assignments process and lack of support from the services and leadership were reasons cited to leave the military.

Policy recommendations included flexibility in career milestones and assignments to allow for colocation, advanced lead-time for PCS and deployments, leadership education on dual-service issues, sabbaticals, early retirement, and a review of policies across the services pertaining to dual-service personnel.

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V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter begins with a brief summary of the thesis, including the issue, purpose of the study, background, literature review, methodology/framework, and results. Main conclusions are then presented along with recommendations for future research.

A. SUMMARY

Retaining talented and diverse persons in the Department of the Navy (DoN) is critical to sustaining national security. In the past several decades, much research has focused on military women, as their opportunities for service have expanded along with their contributions and importance to the nation's armed forces. One area of special interest relates to service members in a dual-service marriage, which includes proportionately more women than men.

Prior research, as discussed in Chapter II, shows that women and dual-service officers tend to display relatively lower career commitment, or a person's expressed intent to continue serving in the military. At the same time, women tend to remain in service at lower rates than do their male counterparts. Few studies have examined the interaction of gender and marriage in the Navy, and even fewer studies are available for the Marine Corps. Previous studies are commonly qualitative in nature and use preexisting survey data from the services or surveys generated by the various researchers. Many studies have measured career commitment, which is associated strongly with retention behavior. The present study uses a quantitative approach to analyze data across cohorts and time to predict retention probability. Additionally, focus groups are used to gather and assess the personal views and perceptions of women and men in a dual-service marriage.

The present study may benefit the Navy and Marine Corps as the services strive to recruit, train, retain, and promote highly qualified service members. Many officers today face the daily challenge of balancing their work and family lives. These challenges are often more complicated when the officers are in a dual-service marriage. Understanding the issues associated with a dual-service marriage can better inform policy changes to

support professional and personal goals and enhance retention of talented service members.

This study uses a mixed-method, quantitative and qualitative approach, to examine retention decision outcomes by officers married to another service member.

The multivariate regression analysis used a data set provided by the Defense Manpower Data Center that includes all officers in the Navy and the Marine Corps commissioned from FY 1998 through FY 2003 followed until 10 years of service or until separation. The sample includes observations on 27,126 individuals. The goal of the quantitative approach was to test whether retention rates of officers in a dual-service marriage are any different from retention rates of their counterparts, single or married to a civilian, while controlling for other demographic and professional characteristics.

Our first research questions aimed to test whether officers in a dual-service marriage have any different retention rates than officers who are single or married to a civilian, and the factors that might predict these differences. Our multivariate regression analysis findings indicate that retention of women is lower than for their male counterparts, confirming a finding already established in previous research. We also found that the chance of retaining at 60 months for officers in a dual-service marriage were not statistically different from those of officers married to a civilian counterpart, yet higher than the retention rates of who were single. However, at 10 years, officers married to another service member were 4.2 percent less likely to retain than were officers married to a civilian.

While the quantitative approach had the advantage of using large, off-the-shelf data sets to establish relationships between retention outcomes and predicting factors, this approach was limited by the measured characteristics available in the data and therefore observed by us.

We used a qualitative inquiry method to complement our approach by going deeper in the quest to identify more nuanced factors associated with dual-service officer retention, even if the sample size is typically small and the larger trends are difficult to identify. The focus group analysis used group discussions conducted at NPS in December

2013 and included 13 officers in a dual-service marriage. Focus group discussions addressed the attitudes, behaviors, and experiences of dual-service officers, particularly women. Women and men tend to share the same general concerns, including family planning and separation. The uncertainty and continuous planning required for colocation is stressful. Colocation is a key driver of retention, more so than compensation. Early career retention decisions are based largely on job satisfaction for men and women. By midcareer, colocation is a priority retention driver for both men and women. Several participants indicated that they or their spouses would not continue in the service at the midcareer point. This supports the results of the statistical analysis that dual-service officers tend to have a lower retention rate after the midcareer point. Secondary retention drivers are job satisfaction for women and compensation and retirement for men. The results are not generalizable to the greater dual-service population but provide insight into the experiences and career commitments of dual-service officers. Limitations include the small sample size and that all participants were graduate students, reflecting possibly different experiences and attitudes than other dual-service officers at the time of the study.

B. CONCLUSIONS

Clearly, officer retention is a critical factor in maintaining a strong and effective military force. Lower retention in any subpopulation is a concern for the services. The present study seeks to examine dual-service officers in the Navy and the Marine Corps to determine whether their retention rates differ from those of officers who are single or married to civilians. Furthermore, it seeks to determine whether the retention of women in a dual-service family differs from that of their male counterparts, to identify factors that may contribute to any observed differences, and to specify the point at which women exit military service.

The results of multivariate regression analysis suggest possible challenges for officers in a dual-service marriage. At the same time, the data analysis offers no clear final answers for what generated the observed differences in retention behavior. The sample size does not support differentiation by gender based on type of marriage, though

retention of women tends to be lower than that of their male counterparts, a finding established in previous research. Focus group results confirm that the challenges faced by dual-service officers, women and men alike, are often difficult and can strongly influence decisions to leave or remain in military service. The problems encountered in navigating two highly structured, demanding career paths while honoring family roles and commitments are a continuing concern for officers in a dual-service marriage. On the other hand, focus group themes confirm that the military's personnel policies have improved over time in areas such as compensation and child care.

a. Policy Implications

Major policies enacted by Congress over the years have benefited dual-service couples in their ability to serve. As focus group results suggest, compensation is generally sufficient for the dual-service population. Service members in a dual-service marriage are entitled individually to receive single Basic Allowance for Housing (BAH) and, if there are dependents, one member of the dual-service couple will receive the allowance at dependent status, the same as for service members married to a civilian (DoD, 2019). Dual BAH entitlement is the major policy that is under constant barrage for compensation reform as a cost-saving measure. Dislocation Allowance (DoD, 2019) to support families as they transfer from a duty station is also available to dual-service couples, which can help ease the financial strain of moving not always one, but two households, especially when transferring to separate geographical locations. Family Separation Allowance (DoD, 2017) is another form of compensation for added expenses due to an enforced family separation. Compensation for dual-service officers is satisfactory overall and should be maintained.

Furthermore, over the years, the study of female retention in the military has driven numerous policy changes and given way to additional theories of how best to allow for promotion opportunities along with the ability to start and care for a family. Policies that benefit women also benefit dual-service couples. In May of 2015, the Secretary of the Navy issued the Department of the Navy Talent Management Initiatives designed specifically to recruit, develop, retain, and promote sailors and Marines

(Maybus, 2015). These initiatives were broken into several different themes to include performance-based advancement that was approved in the 2018 National Defense Authorization Act for Fiscal Year 2019 (2019) under merit-based promotion. In the interim, the services opened all occupational fields to women. Additionally, in 2017, the DoN issued guidance to both the Navy and Marine Corps to enhance inclusion and diversity through a strategic roadmap that requires measurable results of these improvements into the future. These policies, along with the continued focus on personnel policies, continue to provide alternate options to service members, particularly dual-service couples, to remain in service. Many of the concerns outlined in the focus group results are addressed with these ongoing policy changes, specifically regarding collocation and a more flexible career path.

C. RECOMMENDATIONS

The present study is limited due to its small sample size and use of graduate students in the focus groups. Future research should be expanded to include a larger population representing all occupational fields, ranks, education, and parental status.

Since all occupational specialties were opened to women in 2016, many personnel policies have changed or are in the process of being modified in the DoN, not limited to increased maternity leave, career intermission programs (sabbaticals), and colocation assignments of dual-service members. Future research could include using the methods in this study on an expanded population to identify how attitudes or retention behavior may have changed since these policies were enacted or revised.

Another possibility for future research would be to conduct a study of the Marine Corps only. The present research found that married Marine Corps officers were 2.2 percent less likely to remain in service at 60 months than were married Navy officers. At 10 years of service, married Marine Corps officers were more likely to remain by 4.8 percent than were married Navy officers. Future research could seek to identify the various factors that make Marine Corps officers more likely to stay between 60 months and 10 years of service.

Dual-service officers are a growing and important population that generously supports the national security mission. A close eye should be kept on them to ensure that the challenges they face may be mitigated to best enable their future service in defense of the nation.

APPENDIX A. FOCUS GROUP WEBPAGE ANNOUNCEMENT

STUDENT MUSTER PAGE ANNOUNCEMENT:

DUAL-SERVICE MARRIAGE FOCUS GROUPS FOR USN & USMC

Thesis Research- GSBPP

DATE: December 10–12 2013 (**Please contact for group assignment)

TIME: 1200–1300 Lunch will be made available to focus group participants

LOCATION: Ingersoll Hall Conference Room 278

WHAT: 6 to 10 person focus groups to support student thesis research will be conducted as in-depth discussions to identify and examine issues of dual-military couples such as perspectives, benefits, challenges, or concerns related to dual-service marriage and their possible impacts on decisions for continued service.

Multiple groups will be held. Personnel can sign up for any applicable group until they are full (i.e., gender-specific AND/OR mixed-gender).

Participation in this study is voluntary. Participant information will be kept confidential by the research team and data collected will be protected through secure data storage facilities at NPS.

There are no anticipated individual benefits associated with participating in this study other than good will. The potential risk of participating is minimal and limited to a breach of confidentiality. The best possible outcome is to uncover the outlier issues or what problems the DoN has not considered regarding personnel in dual-service marriages.

For further information and to participate please contact Kimberly Sonntag at ksonntag@nps.edu.

If you have any questions or comments about the research, please contact the Principal Investigator, Dr. Mark Eitelberg, 831–656-3160, meitelberg@nps.edu. For questions about your rights as a research subject or other concerns please contact NPS IRB Chair, Dr. Larry Shattuck, 831–656-2473, lgshattu@nps.edu.

Thank you,

Nathalie Kocis & Kimberly Sonntag

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APPENDIX B. FOCUS GROUP EMAIL ANNOUNCEMENT

Attention: NPS Navy & Marine Corps Officers
Subject: Married to Another Service-Member?
Dual-service Marriage Focus Groups- Navy & Marine Corps Officers

We are recruiting Navy & Marine Corps Officers to participate in 6 – 10 person focus groups to support thesis research at the Naval Postgraduate School. The focus groups will be conducted as in-depth discussions among peers and colleagues to identify and examine issues of dual-military couples. The purpose is to identify perspectives, benefits, challenges, or concerns related to dual-service marriage and their possible impacts on decisions for continued service.

Multiple groups will be held on different days for different groups. Personnel can sign up for any applicable group until they are full (i.e., gender-specific AND/OR mixed-gender). The groups will not be constrained to one area.
**We will be conducting the focus group:
DATE: December 10–12, 2013**(Please contact us to be assigned to a group)
TIME: 1200–1300
LOCATION: Naval Postgraduate School, Ingersoll Conference Room (278)
DURATION: Approximately 60 minutes.
OTHER: Lunch will be made available to focus group participants.

Participation in this study is voluntary and you may change your mind and decide not to participate at any time, even after the focus group has started. All participant information will be kept confidential by the research team. All data collected will be protected through secure data storage facilities at NPS.

There are no anticipated individual benefits associated with participating in this study other than good will. The potential risk of participating is minimal and limited to a breach of confidentiality. The best possible outcome is for the discussion to uncover the outlier issues or what problems the DoN has not considered or paid attention to regarding personnel in dual-service marriages.

If you are willing to participate in this project, please respond to Kimberly at ksonntag@nps.edu.
If you have any questions or comments about the research, please contact the Principal Investigator, Dr. Mark Eitelberg, 831–656-3160, meitelberg@nps.edu. Questions about your rights as a research subject or any other concerns may be addressed to the Navy Postgraduate School IRB Chair, Dr. Larry Shattuck, 831–656-2473, lgshattu@nps.edu.

Thank you,
Nathalie Kocis & Kimberly Sonntag

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APPENDIX C. FOCUS GROUP PROTOCOL/SCRIPT

Focus Group Script

12:00-12:10 Introduction:
Good afternoon and thank you for coming today to participate in our focus group regarding dual-service marriage. It is a busy time so we are grateful for you being here. The purpose of our focus groups is to complement quantitative analysis with a qualitative aspect. What factors drive retention? Identify what factors drive retention not apparent through quantitative demographic data and may help explain some of the quantitative results.

Housekeeping:
-Ask who has class at 1300- please sneak out otherwise will go until 1300. (If >2 then just terminate at 1255)
-To maximize discussion I will go over a few things very quickly so we can start. Apologies if this is a bit by the numbers OCS style. We want to get to the good stuff.
-Food: Please help yourselves. We provided food to expedite the midday start time since you are giving us time on your lunch hour during this busy week. There is a donation container. Donations are voluntary!
-Explain thesis- 2 parts. Purpose of group is qualitative complement to our quantitative analysis and assist with recommendations for future policy research, reviews, or updates.
-Regarding the papers in front of you have:
-Introduction bullets in front of you. No need to fill out introduction bullets- this is what we request you to state verbally after transcription starts. Please set aside.
-Consent (2 of them- one to review & sign, one for you to keep). We will review it together.
Read consent form verbatim from consent sheet
-Explain transcription. The audio of this group will be recorded.
-Explain data storage- NPS server (our H: drive); until transcription of the MP4. Once transcribed, the MP4 will be deleted. Names will be converted to speaker and number after transcription. A key will be held separately of who is who while qualitative piece is written. No direct quotes will be used unless consent is given. We will delete names from key after thesis completion but keep demographic information.
-Explain confidentiality- As researchers we will protect your information and what is said here. However, we cannot control what is said by other participants. Please, out of courtesy to your peers, refrain from discussing this focus group outside of this group. Please do not talk out of the group or share the questions with others to preserve integrity of research.
Explain signature/quote or no quote block.
You can withdraw your consent at ANY time.
Are there any questions?
Please sign & date one form for our collection. A blank consent form is provided for your records.

-Explain Transcription procedures. Please use nonverbal communication unless speaking, no huhs/ums- just raise your hand; I will point or nod to cue your response.
-Please make introduction clearly and succinctly with introduction bullets sheet for uniformity.
-For transcription quality please refrain from talking until cued (no side bar comments/ whispers- greatly detracts from recording quality).
-Are first names ok to support the transcriptionist meaning will call on you by first names to answer questions, can we use first names today for transcriptionist and for speed?
-Explain introduction bullets- not for written submission, just as guide. Please go down list once transcription begins quickly listing the content- please share you MOS or specialty at the bottom.
-Moderator give example
-Explain timekeeping- encourage jumping in! Raise hand!
-Notepaper- While others talking, consider what you want to say/get inspired/reminded of anecdotes.
-Personal stories/perspectives are excellent- please be as honest/open as possible.
-Please do contribute *even if someone has the same response* as you, though your answer may be *shortened* if identical to a previous response to save time, unless you have a story/anecdote.
-**Importantly, our research is to identify potential improvements to make dual-service marriage easier and maximize retention. As we go through the questions, *do* jot down ideas. There will be a policy-related question at the end.

Let's get started:

START TRANSCRIPTION!!! –
We will now begin transcription- verify device is recording!!!!!

There is an introduction sheet in front of you. You can also use it for note-taking, thinking of comments for your turn or later in the discussion.

First we'll start by using the "Introduction Bullets" in front of you to go in a circle. We'll start with _____ so please, tell us about yourself.

12:10-12: 15 Question 1. (Icebreaker) This a quick icebreaker question.

Good or bad, what was the *first* thing that came to mind and when asked to participate in this dual-service marriage focus group or when you found out about this thesis and how did you *feel?*

12:15-12:25 Question 2. The rest of the questions will follow a progression so do focus on Questions- stick with the exact question- positive or negative….

Describe the biggest *benefit or rewarding part* of being part of a dual-military couple?

12: 25–12:35 Question 3.

Explain your biggest challenge to date or biggest concern related to being in a dual- military marriage?

12: 35–12:45 Question 4.

What was the single biggest driver for your continued military service at 4 years of service, 10 years (if applicable), and in the future?

12:45-12:50 Question 5.

Let's suspend reality for one moment. In a perfect world, barring bureaucratic or budget constraints, how could policy be modified to best address your most difficult challenge?

12:50-12:55 Add additional question from below if time is available.

12:50-12:55 Conclusion:
Are there any additional comments or questions we did not address that you would like to mention regarding any of the questions?
Debrief/Recap.
Are there any last minute comments, thoughts, or questions?
Please remember the content of this group stays here and not to discuss outside. Feedback is welcome immediately after. Do you have any advice for how we can improve? Our thesis should be completed by March 2014. Thank you very much for participating today.
End.

Possible follow on questions if time:
1. How do you see your spouse: as a Spouse first, then Officer, or …Vice versa?
2. Was this a factor in your last decision point (when you had to accept orders)?
3. Does your MOS/designator have a civilian equivalent?
4. Tell us about the kind of family or external support is available to you?
5. Number of deployments?
7. Geographic separations (orders/schools)? If so, for how long? Impacts?
8. Reasons for continuing service?

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APPENDIX D. FOCUS GROUP CONSENT FORM

Naval Postgraduate School Consent to Participate in Research

Introduction. You are invited to participate in a research study entitled "Dual-Service Couples: A Look at Female Officer Retention While Trying to Balance Career and Family.*"* The purpose of this thesis is to compare the retention of female active-duty officers in the Navy and Marine Corps whose spouses are in the military ("dual-service marriage") with that of female officers who are single or married to a civilian. The retention rate of male officers in a dual-service marriage will be analyzed and compared to their female counterparts.

Primary Questions:
1. Do women officers in a dual-service marriage have different retention rates than do those who are single or married to a civilian?
2. How do these retention rates compare with those of male officers in a dual-service marriage?
3. Do decision outcome points differ amongst groups?

Procedures. Subjects who opt to participate in focus groups will be asked to attend the gender-specific focus group for approximately 1 hour, and when feasible, a focus group of mixed gender, preferably married couples, for approximately 1 hour. During the focus groups, they will be asked to verbally answer questions related to decision factors driving their continued service, exit criteria, and any concerns or issues they face specific to balancing marriage and military service and possible solutions to any challenges related to dual-service marriage. Audio recording will occur for each session to facilitate transcription and will be destroyed upon transcription.

Location. The interview/survey/experiment will take place in Ingersoll Hall at the Naval Postgraduate School.

Cost. There is no cost to participate in this research study.

Voluntary Nature of the Study. Your participation in this study is strictly voluntary. If you choose to participate you can change your mind at any time and withdraw from the study. You will not be penalized in any way or lose any benefits to which you would otherwise be entitled if you choose not to participate in this study or to withdraw. The alternative to participating in the research is to not participate in the research.

Potential Risks and Discomforts. The potential risks of participating in this study are: breach of confidentiality may result in embarrassment or discomfort amongst peers.

Anticipated Benefits. Anticipated benefits from this study are possible influence on manpower policy decisions. You will not directly benefit from your participation in this research.

Compensation for Participation. No tangible compensation will be given. Food is available for participants.

Confidentiality & Privacy Act. Any information that is obtained during this study will be kept confidential to the full extent permitted by law. All efforts, within reason, will be made to keep your personal information in your research record confidential but total confidentiality cannot be guaranteed. A roster of contact information for each focus group will be kept on an NPS server only and will be used for follow up or contact for change of venue or location. If you consent to be identified by name in this study, any reference to or quote by you will be published in the final research finding only after your review and approval. If you do not agree, then you will be identified broadly by discipline and/or rank, (for example, "fire chief").

☐ I consent to be identified by name in this research study.

☐ I do not consent to be identified by name in this research study.

Points of Contact. If you have any questions or comments about the research, or you experience an injury or have questions about any discomforts that you experience while taking part in this study please contact the Principal Investigator, Dr. Mark Eitelberg, 656–3160, meitelberg@nps.edu. Questions about your rights as a research subject or any other concerns may be addressed to the Navy Postgraduate School IRB Chair, Dr. Larry Shattuck, 831–656-2473, lgshattu@nps.edu.

Statement of Consent. I have read the information provided above. I have been given the opportunity to ask questions and all the questions have been answered to my satisfaction. I have been provided a copy of this form for my records and I agree to participate in this study. I understand that by agreeing to participate in this research and signing this form, I do not waive any of my legal rights.

_____ _____

Participant's Signature Date

_____ _____

Researcher's Signature Date

APPENDIX E. FOCUS GROUP INTRODUCTION SHEET

Introduction Bullets

(<u>No need to write</u>- will not be collected. For introduction purposes during session.)

Rank & First/Last Name:

Service:

Years of service:

Years married:

Spouse's Service:

Spouse's Rank:

Co-located: yes or no?

# of Children:

Ages of Children:

Occupational Specialty:

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APPENDIX F. RANK/PAY GRADE STRUCTURE

Pay Grade	Navy Rank	Marine Corps Rank	Cumulative Years of Service
O-1	Ensign	Second Lieutenant	Rank at Commission
O-2	Lieutenant Junior Grade	First Lieutenant	2
O-3	Lieutenant	Captain	4
O-4	Lieutenant Commander	Major	10
O-5	Commander	Lieutenant Colonel	16
O-6	Captain	Colonel	22
O-7 to O-10	Flag Officer	General Officer	Congressional Decision

*Note: Cumulative Years of Service are approximations

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APPENDIX G. FOCUS GROUP PARTICIPANT OCCUPATIONAL SPECIALTIES BY CATEGORY

Occupation	Remarks
Surface Warfare	Surface Warfare Officers
Ground Combat Arms	Infantry, artillery, armor, light armored reconnaissance, amphibious assault
Aviation	Pilots
Support	Communications, intelligence, supply, logistics, engineering duty, administration

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APPENDIX H. FOCUS GROUP DEMOGRAPHICS

	Marine Officers	Navy Officers
Pay Grade		
O-3	1	8
O-4	3	1
Total Participants	4	9
Gender		
Male	1	5
Female	3	4
Married to:		
Same Service	4	8
Different Service	0	1
Married to:		
Same Pay Grade	4	8
Different Pay Grade	0	1
Has children	3	0
Expecting child	2	3
Occupational Specialty		
Combat Arms	0	0
Surface Warfare	0	2
Aviation	0	3
Support (Total)	4	4
Administration	1	0
Logistics/Supply	2	1
Intelligence	0	1
Engineering Duty	0	2
Communications	1	0
Years of Service		
4-10	1	7
11-13	3	2
Years Married		
0-5	1	8
6-10	3	1

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