



# **NAVAL POSTGRADUATE SCHOOL**

**MONTEREY, CA**

## **THESIS**

**EXPLORING HOW AGE, ACCESSION SOURCE,  
CHILDBEARING AND THE SWO CAREER PATH  
INFLUENCE FEMALE SWO RETENTION**

by

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March 2017

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SWO CAREER PATH INFLUENCE FEMALE SWO RETENTION**

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## **ABSTRACT**

The Chief of Naval Personnel (CNP) and Navy Recruiting Command (NRC) must target recruiting efforts, re-examine the rigidity of the SWO career path and adjust the female accession source input toward those who retain longer in the community. This study explores the factors of age and accession source in conjunction with women's primary childbearing years to determine how the timing of the Surface Warfare Officer (SWO) career tracks influence retention decisions of women in the SWO community. The study draws on technical reports and academic literature to address economic and psychological factors in conjunction with prior graduate theses on female SWO retention. This framework establishes career path timelines and introduces an Optimum Childbearing Window (OCW), from ages 25 to 30, aligning childbearing years with the four SWO career tracks based on accession source groupings. The models deliver a theoretical framework for evaluating the timing of exit opportunities the SWO community provides. Additionally, a framework on female military identity is added to address the psychological element of identity conflict along the SWO career path. The study concludes that, in order to retain women in the SWO community, age, accession source, military identity, pregnancy and exit point timing are all important factors to consider.

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## LIST OF ACRONYMS AND ABBREVIATIONS

ACDUTRA	Active Duty for Training
ADOC	Advanced Division Officer Course
AEDO	Aerospace Engineering Duty Officers
AFQT	Armed Forces Qualification Test
AMDO	Aviation Maintenance Duty Officers
ASW	Anti-Submarine Warfare
AT	Annual Training
BDOC	Basic Division Officer Course
BST	Basic Shiphandling Training
CBY	Child Bearing Years
CCR	Cumulative Continuation Rate
CDC	Centers for Disease Control and Prevention
CEC	Civil Engineering Corps
CHC	Chaplain Corps
CIP	Career Intermission Program
CIPP	Career Intermission Pilot Program
CNP	Chief of Naval Personnel
CO	Commanding Officer
CPS	Current Population Survey
CSRB	Critical Skills Retention Bonus
DC	Dental Corps
DH	Department Head
DIVO	Division Officer
DUI	Driving Under the Influence
DWI	Driving While Intoxicated
EDO	Engineering Duty Officers
EOD	Explosive Ordnance Disposal
EOOW	Engineering Officer of the Watch
FAO	Foreign Area Officers
FTS	Full Time Support

FYDP	Future Years Defense Program
GPA	Grade Point Average
HR	Human Resource Officers
I-ACDUTRA	Initial Active Duty for Training
IDC	Information Dominance Corps
IRR	Individual Ready Reserve
JAG	Judge Advocate General Corps
MAJ CMD	Major Command
MC	Medical Corps
MLDC	Military Leadership Diversity Commission
MSC	Medical Service Corps
NC	Nurse Corps
NCHS	National Center for Health Statistics
NFO	Naval Flight Officer
NRC	Navy Recruiting Command
NROTC	Navy Reserve Officer Training Corps
NSW	Naval Special Warfare
OBLISERV	Obligated Service
OCS	Officer Candidate School
OCW	Optimum Childbearing Window
OTAID	Optimal Theory Applied to Identity Development
OWP	Office of Women's Policy
PAO	Public Affairs Officers
PFA	Physical Fitness Assessment
PMP	Permanent Military Professors
PRT	Physical Readiness Test
QOL	Quality of Life
SC	Supply Corps
SELRES	Selective Reserve
STA-21	Seaman to Admiral-21
SWO	Surface Warfare Officer
SWOCP	Surface Warfare Officer Continuation Pay

UCMJ	Uniform Code of Military Justice
USNA	United States Naval Academy
WAVES	Women Accepted for Volunteer Emergency Service
WTI	Weapons Tactics Instructor
XO	Executive Officer (XO)
YCS	Years of Commissioned Service

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## I. INTRODUCTION

Since Lieutenant Charlene T. Suneson reported to the USS *General W. A. Mann* (AP-112) as the first female officer in 1961, “Women Accepted for Volunteer Emergency Service” (WAVES) have served onboard ships in the U.S. Navy. Although occupational choices involved mainly health care and clerical work, women began leaving their marks in history, progressing through the ranks of a male-dominated military (Naval History and Heritage Command, 2014). When conscription ended in 1973, women only comprised 2.5% of the all-volunteer force. By 1986, women had become 10.1% of the force (United States General Accounting Office, 1987). Another milestone came in 1994 with the repeal of the Combat Exclusion Act, opening up some occupational choices for women in the military, but restricting women from direct combat on the ground until 2013 when this restriction ended (Burrelli, 2013).

As the Navy adapted to culture shifts, its policies changed to align with the other branches to recruit and retain a resilient, diverse workforce. Recently, the Chief of Naval Operations announced the Navy’s goal is to increase female representation from 17% to 25% of the force (Olson, 2015). Additionally, in June 2015, the Surface Warfare Officer (SWO) Career Path underwent an overhaul to offer more options other than the single legacy career path (Cooper, 2015). Although it seems to better accommodate women SWOs, each option still poses challenges for women who want to remain and start or maintain a family. To ensure the Chief of Naval Operations’ diversity vision is met, and to ensure adequate representation in a variety of career fields, it is important that the Navy continues to modify its policies to remain competitive with the civilian sector and other military branches.

To provide insight into how women integrate into the military psychologically and considering their childbearing goals against their career options, the study uses two tools. First, Bailey’s Proposed Developmental Framework for Female Military Personnel introduces the five suggested stages women go through when adapting to a traditionally male culture (2007). This framework, combined with how age, accession source and the SWO career path align with a woman’s “optimum childbearing window” (OCW) will

illustrate to policy makers how, even with the recent changes, the SWO career path is still not “family friendly” for women.

## **A. BACKGROUND**

Female officers hold 11,000 billets or about 17% of the total naval force. Only about 2,000 of these billets are in the Surface Warfare community. The remaining billets are in Restricted Line and Staff Corps communities (Navy's Office of Women's Policy, 2013). Researchers have studied SWO retention and work-life balance for over a decade to determine why there is such a disparity in retention of female SWOs compared to other communities (Navy's Office of Women's Policy, 2013).

Specifically, from 2003 to 2008, five separate Naval Postgraduate School studies were conducted relating to the decline in retention of female Surface Warfare Officers. All five concluded that family related factors were primary reasons that women choose to leave the SWO community (Clifton, 2003; Taylor, 2005; Pecenco, 2005; Graham, 2006; Stoker & Crawford, 2008). Taylor stated:

After weighing the questions of long-term career opportunities, the lack of full acceptance of their role by others and the institution, and conflictions with family responsibilities, many women concluded that the rewards of continued military service are less than the costs. Most saw their military service as a positive experience, and many who intended to separate expressed regret they found it necessary to end their military career. (2005)

As the Navy attempts to balance the pressures of career and family through initiatives such as increasing maternity leave, the Career Intermission Program (CIP) and adding options to the SWO career path, it fails to address the fundamental design flaws of the timing of the SWO career path for women. To retain women in the SWO community, the Navy must recognize that although the career paths are the same for men and women, the driving factors for retention differ.

## **B. PURPOSE AND BENEFITS**

Using prior theses and Bailey's (2007) Proposed Developmental Framework for Female Military Personnel, the goal of this study is to explore how age, accession source

and timing of a woman's childbearing years along the SWO career path influence female SWO decisions to leave the community. Based on an extensive literature review and relevance to Navy female retention, the Naval Postgraduate School studies selected revealed that family related factors were a primary reason women chose to leave the SWO community through lateral transfer or separation.

Each study concluded that age, accession source or the SWO career path contributed to female SWO retention, but until now, no study has addressed these factors simultaneously. This study continues to explore female SWO retention but dives further into the contributing factors of age, accession source, and the SWO career path by placing them on a continuum and then over-lapping the "optimum childbearing window" (OCW) to show the window of opportunity a female SWO has to balance a career and children. The information gained provides a combined timeline for policymakers to consider when proposing additional incentives to increase female SWO retention.

### **C. RESEARCH QUESTIONS**

Using knowledge gained during the literature review on economic and psychological considerations for female SWOs, three research questions were developed. The first two questions explore how age, accession source and pregnancy timing align on the SWO career path and how the timing of exit points may influence a woman's decision to leave. The third question addresses deeper psychological considerations through an analysis of accession sources based on Bailey's (2007) Identity of Military Women frameworks. The following primary and secondary research questions are considered:

#### **Primary:**

1. How does the SWO career path align with the five-year "optimum childbearing window" (OCW) during ages 25 to 30?
2. How do the career path exit points influence female SWO retention?

#### **Secondary:**

1. How does the SWO career path align with Bailey's (2007) proposed developmental framework for female military personnel?

This study analyzes the four SWO career tracks introduced in June, 2015 and how each aligns with a five-year “optimum childbearing window” (OCW) in addition to SWO career path exit points shown on published career path timelines. The researcher suggests a five-year OCW from ages 25–30 based on the 2015 U.S. Department of Health and Human Services Report and the Navy’s biennial Pregnancy and Parenthood Survey. Each track is placed on a continuum, in six-month increments, from age 18 to the point of 11 years of commissioned service. Using Microsoft Excel, the continuum depicts a woman’s childbearing window and exit points overlaid on the SWO career path, when accounting for age and accession source. This illustration shows the amount of time a woman is allowed in the SWO community during her “optimum childbearing years” to actually conceive and bear children while remaining on one of the four SWO tracks.

#### **D. METHODOLOGY**

This study uses a qualitative research approach through exploratory methods to examine female SWO retention. This method permits data collection in a less structured, more flexible, and inductive manner. It also allows for varying data collection methods and analysis techniques (Guest, MacQueen, & Namey, 2011). Based on thematic conclusions surrounding female SWO retention, five recent theses were selected to develop research questions. These theses varied in qualitative, quantitative and mixed approaches; each study concluded that retention decline for female SWOs is often due to family-related factors. The data collected from these theses helped further refine the scope of the research questions.

#### **E. LIMITATIONS**

Generalizing the SWO continuum into six-month increments to align with the published SWO career tracks limits the study because each woman’s timeline will vary based on actual date of entry into the Navy. This study also only considers age, accession source and career path variables without consideration of other demographics such as marital status, which also influences female retention decisions. Additionally, predicting when a woman will conceive or choose to start a family is an inexact science because human behavior is unpredictable or may change as marital status changes. The timelines

generated depict estimations to understand the difficulty in planning pregnancy to coincide with the SWO career.

## **F. THESIS ORGANIZATION**

Chapter II details the literature review and builds the foundation required by examining SWO accession sources, age and the career path. Chapter II also introduces Bailey's (2007) Proposed Developmental Framework for Female Military Personnel and identifies gaps in research that justify this study. Chapter III outlines the research questions, methods and approach used in this study. Chapter IV presents the SWO career path when age, accession source and the "optimum childbearing window" (OCW) are considered. Chapter V concludes the study with the summary, conclusions and recommendations for further research.

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## **II. LITERATURE REVIEW**

This chapter discusses the historical representation of women in the military, economic considerations when recruiting and retaining women in the military, the four primary SWO accession programs, the SWO career path and defines a woman's primary childbearing years. This approach will help develop the analysis and a timeline continuum for women and their opportunities to have children during a SWO career.

### **A. HISTORY**

Women's ability to enter military service has changed over time and has varied by occupation within each branch. In 1973, the United States established an all-volunteer force, ended conscription and saw the largest increase in the number of women serving on active duty—quadrupling the commissioned officer ranks, from 4% to 16% (Patten, 2011). Of the 203,000 women in the military in 2011, about 74,000 (36.5%) were in the Army; 62,000 (30.5%) in the Air Force; 53,000 (26.1%) in the Navy; and 14,000 (6.9%) in the Marine Corps. Although these numbers are significant, women still represent only about 14.5% of the total force (Smith, 2013). Despite the 53,000 women in the Navy, only about 1,700 are in the SWO community of over 8,500 SWO officers (Black, 2015).

Specifically, for Naval Officers, a wide range of careers are available to qualify for, consolidated into three sub-components of: Staff Corps, Restricted and Unrestricted Line officers. According to the Navy Personnel Command's website, the Staff Corps component consists of officers serving in the

- Medical Corps (MC)
- Dental Corps (DC)
- Medical Service Corps (MSC)
- Judge Advocate General Corps (JAG)
- Nurse Corps (NC)
- Supply Corps (SC)
- Chaplain Corps (CHC)

- Civil Engineering Corps (CEC)

In contrast, the restricted Line community makes up the following:

- Aerospace Engineering Duty Officers (AEDO)
- Aviation Maintenance Duty Officers (AMDO)
- Engineering Duty Officers (EDO)
- Foreign Area Officers (FAO)
- Human Resource Officers (HR)
- Information Dominance Corps (IDC)
- Permanent Military Professors (PMP)
- Public Affairs Officers (PAO)

Finally, the Unrestricted Line community comprises these groups:

- Surface Warfare (SWO)
- Aviation (NFO or Pilot)
- Submarine Warfare (Sub Nuclear)
- Naval Special Warfare (NSW)
- Explosive Ordnance Disposal (EOD)

This study focuses on the Unrestricted Line community, and specifically, female Surface Warfare Officers (Navy Personnel Command, 2011).

To commission in the Navy, an officer typically enters in one of four ways: either through the Navy Reserve Officer Training Corps (NROTC), the United States Naval Academy (USNA), Officer Candidate School (OCS), or the Seaman to Admiral-21 (STA-21) Program. Each accession source has specific entrance requirements and targets different demographic groups. Although NROTC and USNA accessions are most similar in age and four-year program requirements, the entrance requirements differ.

Conversely, OCS applicants have already earned a Bachelor's Degree and once accepted to the program, have a 12-week training requirement before commissioning in the U.S. Navy. STA-21 applicants have prior military service and are generally older than

NROTC, USNA and some OCS graduates. The STA-21 program requires candidates to achieve a Bachelor's Degree in three years, vice the four-year program of NROTC and USNA (Chief of Naval Operations, 2009a).

As of June 2014, the total number of women who serve as Naval Officers is 11,529, or 17% of the total officer corps (Navy's Office of Women's Policy, 2014). Of those, the two communities yielding the highest percentages of women are Health Care, at 46% and the Surface Warfare Officer (SWO) community at 15%. Unfortunately, the SWO community has been plagued by a decline in female retention since the mid-1990s with the repeal of the Combat Exclusion Act. Researchers determined that family-related factors contributed the most to this decline (Clifton, 2003; Graham, 2006; Stoker & Crawford, 2008).

To address the decline in female SWO retention, the Navy introduced different policies such as Surface Warfare Officer Continuation Pay (SWOCP), lengthened the reporting requirements for operational duty after a pregnancy and, most recently, introduced the Career Intermission Program (CIP). Each of these policies added flexibility or incentives to the SWO career path, and attempted to address family-related factors. Unfortunately, some of the policies were unsuccessful (Stoker & Crawford, 2008; Navy's Office of Women's Policy, 2013).

## **B. FINDING WOMEN FOR THE MILITARY**

### **1. Economic Considerations**

The civilian economy plays an important role in accessions to the U.S. military. When the economy is in a recession, the military becomes more attractive to people who cannot find employment elsewhere. During these times, with the surplus of applicants, the military can choose to be more selective and enlist 'higher-quality' personnel. On the other hand, when the U.S. economy experiences a boom, the military becomes a less-desirable choice as applicants have more opportunities for work in the civilian sector, which may require less commitment (Office of the Under Secretary for Personnel and Readiness, 2009).

The unemployment rate from FY 1973–2009 separated by ages 16 and up (for overall unemployment rate) and ages 16–24, the age range in which a majority of Navy applicants fall as shown in Figure 1. Notice the unemployment rate for ages 16–24 is significantly higher than the overall average, suggesting that on average, younger age groups have historically experienced a higher unemployment rate (Office of the Under Secretary for Personnel and Readiness, 2009). This could be due to schooling or extra-curricular commitments but provides an opportunity for the military to recruit those in the younger, higher unemployment range, some of whom will be women. The higher rate of unemployed makes military service more desirable (Bureau of Labor Statistics U.S. Department of Labor, 2014).

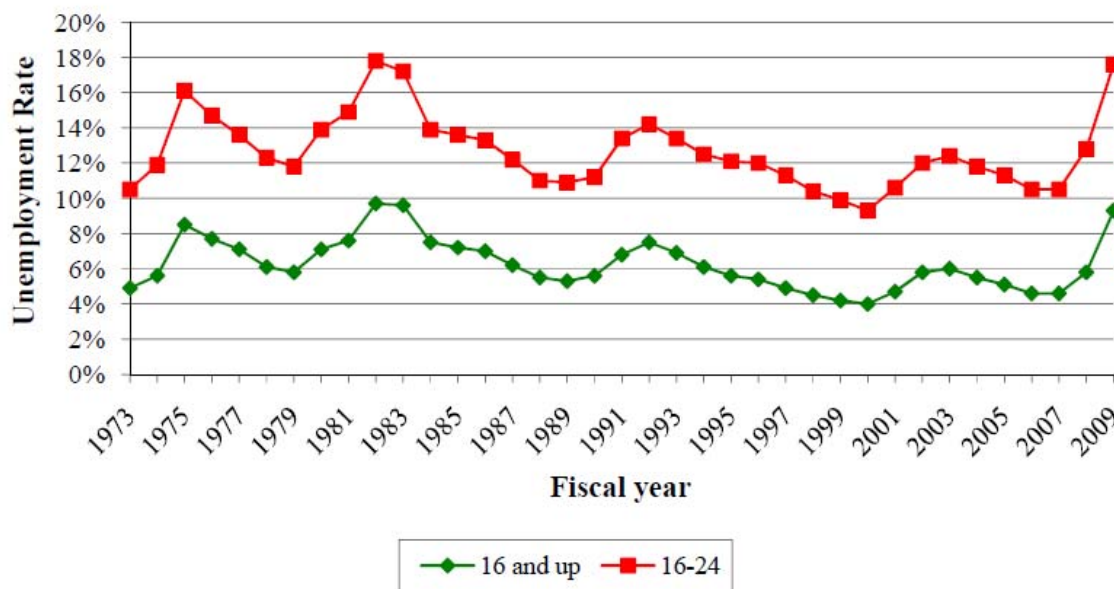


Figure 1. Civilian U.S. Unemployment Rates FY 1973–2009. Source: Office of the Under Secretary for Personnel and Readiness (2009).

According to the Office of the Under Secretary for Personnel and Readiness, since 1980, the U.S. has encountered four recessionary periods in which the unemployment rates peaked, as shown in Figure 2, comparing the percent of high-quality accessions to the unemployment rate for 16–24 year-olds from FY 1980–2009. The latest

recession among 16–24 year-old occurred in 2009 when the unemployment rate rose to 17.6% (Office of the Under Secretary for Personnel and Readiness, 2009).

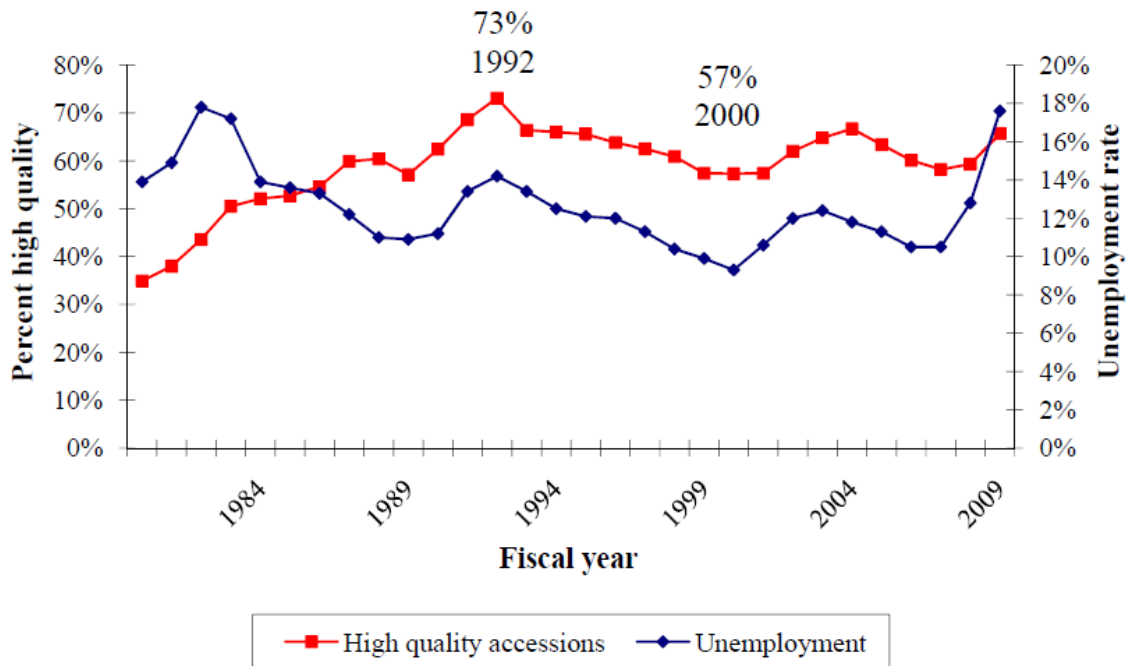


Figure 2. Percent of High Quality Accessions Compared to Unemployment Rate of 16–24 Year-Olds, FY 1980–2009. Source: Office of the Under Secretary for Personnel and Readiness (2009).

During periods of increasing unemployment, high-quality accessions also increased. These high-quality accessions can be enlisted or officer applicants, male or female. When trying to retain personnel, the Navy must consider the state of the economy and, more specifically, the unemployment rates and labor force participation rates of targeted groups (Office of the Under Secretary for Personnel and Readiness, 2009).

Based on the Bureau of Labor Statistics data, in 1999–2000, women’s labor force participation rates peaked as shown in the progression of women’s labor force participation from 1975 to 2013 displayed in Figure 3. Of women 16 years and over, 60.1% chose to participate in the labor force (i.e., become employed or remain employed), but since then there has been a steady decline (Bureau of Labor Statistics U.S. Department of Labor, 2014).

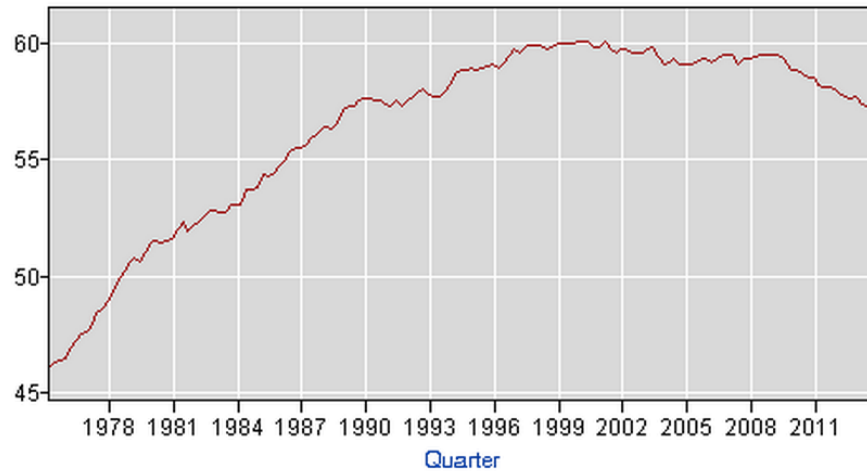


Figure 3. Quarterly Civilian Labor Force Participation Rate of Women 16 Years and Over, 1975–2013, by Quarter. Source: Bureau of Labor Statistics U.S. Department of Labor (2014).

Within the same time period, the number of women not in the labor force stayed fairly steady and then began increasing in 1998 as shown in Figure 4. Since 2002, the number has grown by about 10 million. In other words, since 2002, 10 million more women did not have a job or look for a job in the previous four weeks (Bureau of Labor Statistics U.S. Department of Labor, 2014).

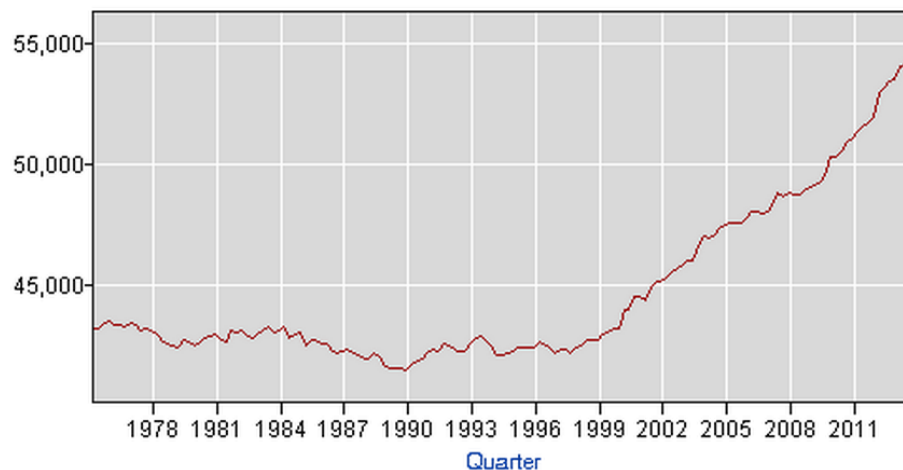


Figure 4. Women Aged 16 Years and Over Not in the Labor Force, 1975–2013, in Millions, by Quarter. Source: Bureau of Labor Statistics U.S. Department of Labor (2014).

In addition, women's unemployment rate fluctuated from 1975 to 2013 as shown in Figure 5. The biggest percentage increase in women's unemployment occurs from 2008 to 2011. Since 2011, women's unemployment has declined, coinciding with the United States' economic growth.

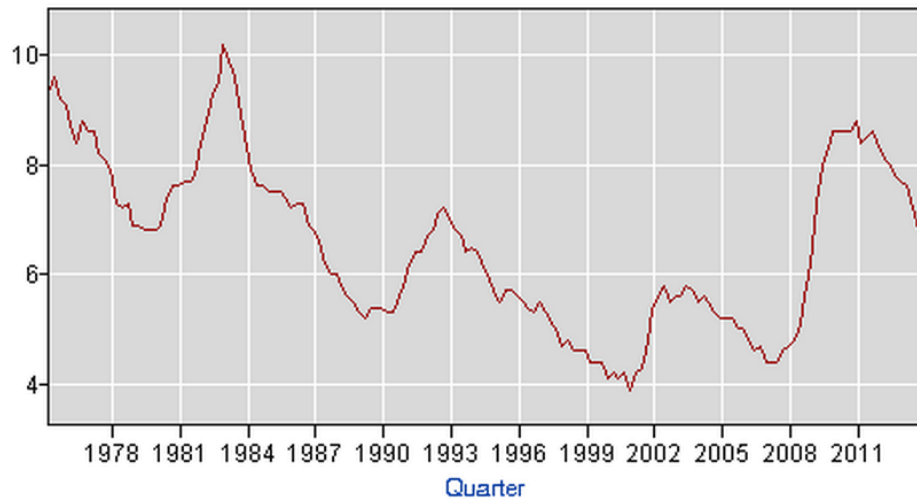


Figure 5. Women Aged 16 Years and Over Unemployment Rate, 1975—2013, by Quarter. Source: Bureau of Labor Statistics U.S. Department of Labor (2014).

In addition to labor force participation and unemployment rates for women, the labor force participation rate for mothers must also be considered in the recruiting environment and the population that the military wants to employ. In 2012, the labor force participation rate for women with children under 18 years of age was 70.5%. (Bureau of Labor Statistics U.S. Department of Labor, 2014). Women with children under six years old have a lower labor force participation rate (68.3%) than mothers with children six to 17 years old (75.1%). The participation rate of women with infants (under one-year-old) was 57.0%. This percentage suggests that women with younger children are not working or looking for work as much as those with older children (Bureau of Labor Statistics U.S. Department of Labor, 2014). Age-specific trends in labor force participation rates significantly increased in the United States for women from 1950–1998, coinciding with society's greater acceptance of women's employment (Fullerton,

1999). Since 1999 the number of women aged 16 and over not in the labor force has increased. Although the average age of women giving birth is increasing, studies show that women with younger children have a lower labor force participation rate, suggesting that they may prefer to stay with their children for the first few years or cannot earn enough to compensate for the cost of childcare (Bureau of Labor Statistics U.S. Department of Labor, 2014).

## 2. Education Considerations

Another possible explanation for the reduction in work force participation for females is the increase in women's education attainment. In 2010, 66.7% of women in the labor force aged 25–64 years had obtained some college or earned a degree, but in 1970 only 22.1% had obtained the same level of education as shown in Figure 6. In addition, the percentage of women who had less than a high school diploma decreased from 33.5% in 1970 to 6.8% in 2010 (Bureau of Labor Statistics U.S. Department of Labor, 2014).

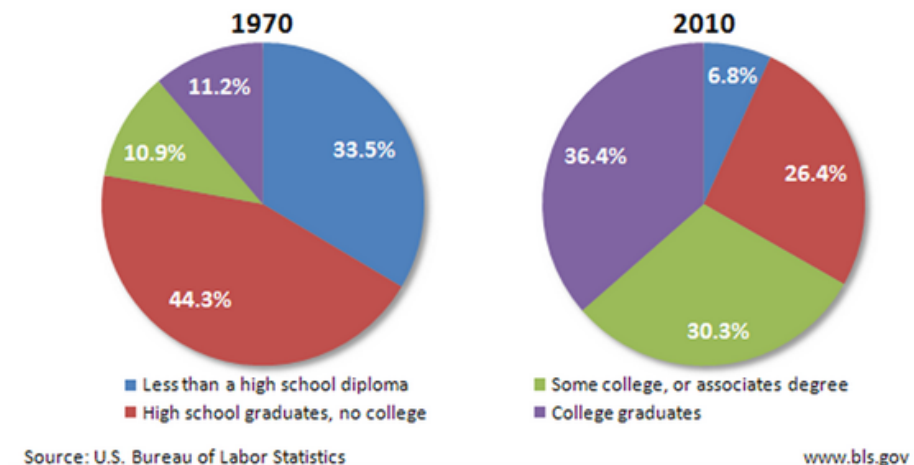


Figure 6. Percent Distribution of Women in Civilian Labor Force Aged 25 to 64 Years, 1970 and 2010, by Educational Attainment. Source: Bureau of Labor Statistics U.S. Department of Labor (2014).

Considering how economic and educational factors have shifted through time, the military must remain flexible if it wants to recruit and appeal to a population who may



prefer to attend college and earn an education, or prefer not to participate in the labor force. When developing recruiting tools and incentives for the target population, accession sources and the ease of entry or transition into the military must also be examined. The military prefers to recruit “high-quality applicants.” A high-quality applicant must have a high school diploma and an Armed Forces Qualification Test (AFQT) score in category I, II, or IIIA—the top 50% of the AFQT distribution (Office of the Under Secretary for Personnel and Readiness, 2009). Once qualified to serve in the military, a person has several options to serve or obtain a commission. The commissioning options facing Navy applicants upon qualification for military service and high school graduation are shown in Figure 7. In addition to these options, the Navy also competes for high-quality applicants with other branches of service or encounter applicants who are more likely to attend college or remain employed elsewhere over pursuing the military as a career.

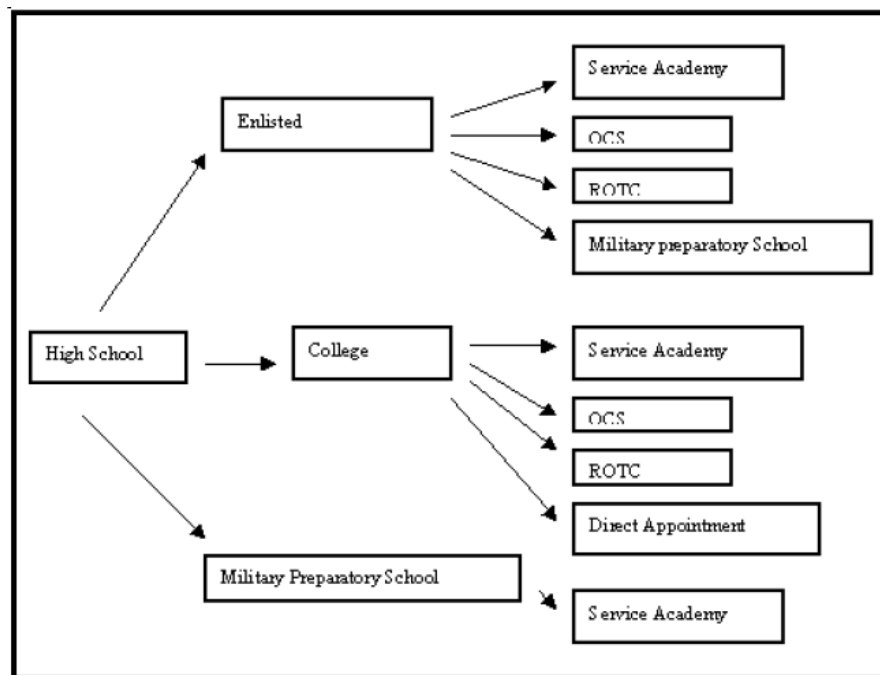


Figure 7. Ways to Commission in the U.S. Navy. Source: Demirel (2002).

Once a commitment is made to commission, today’s Navy offers a variety of programs for women and men to join the officer ranks. For the Surface Warfare

community, there are four primary commissioning sources: the Navy Reserve Officer Training Corps (NROTC), the U.S. Naval Academy (USNA), Officer Candidate School (OCS), and Seaman-to-Admiral 21 (STA-21). Each of these paths is unique and based on eligibility requirements, targets a different demographic population.

### C. NAVY OFFICER ACCESSION PROGRAMS

Considering the psychological and economic impacts when deciding whether to pursue the military as a career, there are also limitations when qualifying to serve. As discussed earlier, there are four primary accession sources into the U.S. Navy officer corps. Although each community competes for officer candidates, the SWO community breakdown is shown in Figure 8.

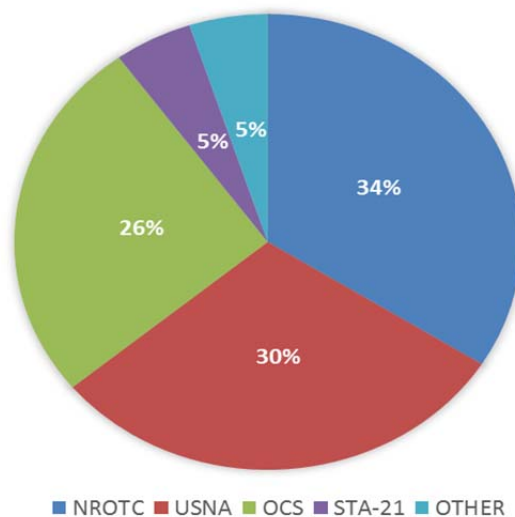


Figure 8. Surface Warfare Commissioning Sources. Adapted from Black (2015).

Additionally, the eligibility requirements for each of the four accession sources are summarized in Table 1. The target demographic varies with each accession source and helps ensure a variety of ages and experience levels once accessed into the Navy officer communities.

Table 1. Naval Officer Commissioning Source Eligibility Criteria

Eligibility Criteria	Commissioning Source			
	NROTC	USNA	OCS	STA-21
Min Age	17	17	19	18
Max Age	23	23	29	26
Commission Age	27	27	29	28
Years Commitment Upon Commission	5	5	4	5
US Citizen	Y	Y	Y	Y
High School Grad	Y	Y		Y
Meet Moral Standards	Y	Y	Y	Y
Meet Medical Standards	Y	Y	Y	Y
Meet Piercing/Tattoo Requirements	Y	Y	Y	Y
Pass Height/Weight/PRT	Y	Y	Y	Y
NROTC College Affiliate	Y			Y
Unmarried		Y		
No Dependents		Y		
Not Pregnant		Y		
SECNAV Nomination		Y		
Command Recommendation		Y	Y	Y
Earned a Baccalaureate Degree or higher			Y	
Prior Active Duty Eligible		Y	Y	Y

As each accession source has unique entrance requirements, the percentage of all SWOs accessed through each accession source from 1980 to 2006 are shown in Figure 9. Since 1980, the number of accessions from each community varies, depending on the Navy's end-strength requirements and Future Years Defense Program (FYDP).

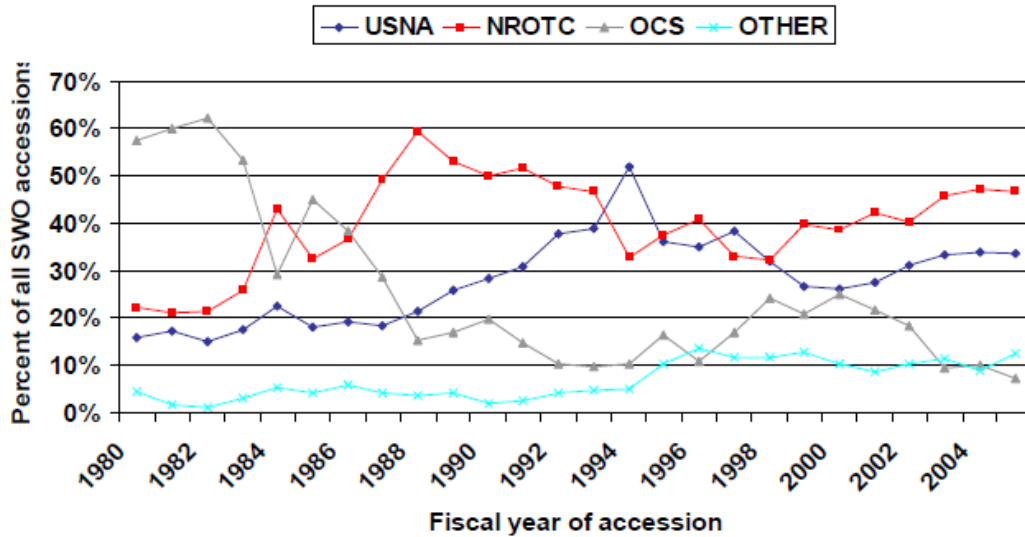


Figure 9. Percent of all SWO Accessions. Source: CNA Study (2008).

In addition, the percent of women SWO accessions from 1980 to 2006 are shown in Figure 10. Of note, the increase in women SWO accessions in 1994 coincides with the repeal of the Combat Exclusion Act, which allows women to serve in a larger variety of career fields but still restricts them from serving in direct combat roles (Broadwell, 2009).

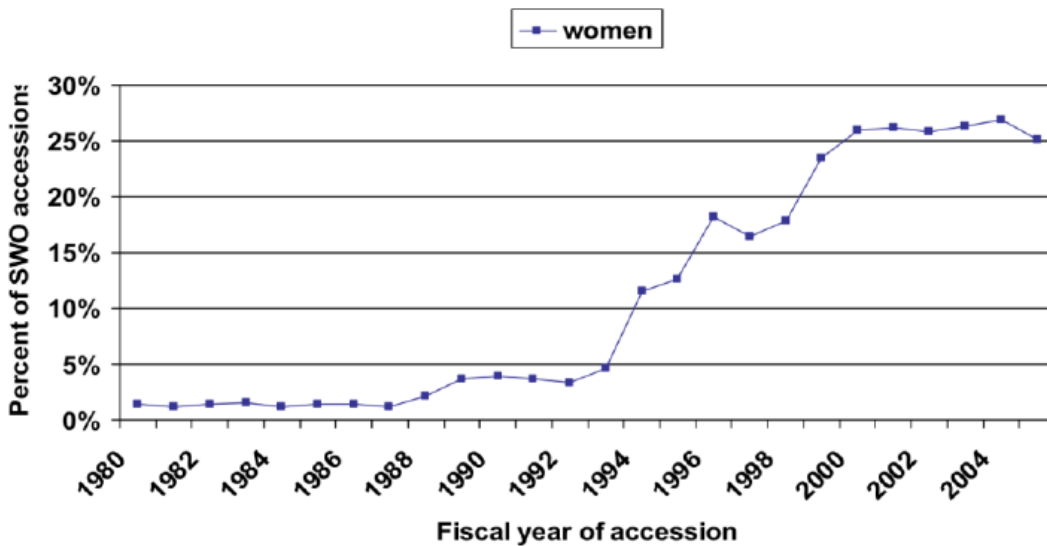


Figure 10. Percent of Women Accessions for SWO. Source: CNA Study (2008).

## **1. NROTC**

At 34% of the SWO community, the NROTC commissioning path currently makes up the majority of SWOs in the U.S. Navy (Black, 2015). Unlike the other sources, active duty Navy applicants are ineligible for the NROTC program. The program requirements are geared toward high school juniors and seniors, looking for a four-year scholarship in exchange for a five-year commitment as a U.S. Naval Officer upon graduation and commission. Students in the program receive allowances for tuition, fees, books and a monthly stipend. The following are minimum requirements for NROTC applicants published on the NROTC admission requirements website:

- Must be a United States citizen
- Not less than 17 years old by Sept. 1 of the year starting college and no more than 23 on December 31 of that year
- Must not have reached 27<sup>th</sup> birthday by December 31 of year in which graduation and commissioning are anticipated
- High School graduate or equivalency certificate by August 1 of the year of entrance into four-year NROTC Scholarship program
- No moral obligations or personal convictions that prevent conscientious bearing of arms and supporting and defending the Constitution against all enemies, foreign or domestic or to taking an oath to perform such acts.
- Medically qualified by Navy standards
- Not have any body piercing or tattoos that violate Navy policy
- Within Navy height/weight standards upon reporting
- Apply for and gain admission to an approved NROTC college or university (United States Navy, 2015)

## **2. USNA**

The Naval Academy commissioning path accounts for 30% of the Surface Warfare Community and is known for its rigorous curriculum, grooming students to commission and commit to five years in the Navy and three years in the Inactive Ready Reserve (IRR) upon earning their degrees (Black, 2015). Midshipmen receive pay, tuition, room and board throughout the program. The eligibility requirements are the

strictest, compared to the other accession sources, the program is open to both civilian and active duty, provided the following requirements are met as stated in the *Enlisted to Officer Commissioning Programs Application Administrative Manual*:

- Must be a United States citizen
- Possess good moral character
- At least 17 and not past their 23<sup>rd</sup> birthday on 1 July the year they would enter the academy
- Unmarried
- Not pregnant
- No dependents
- Physically qualified
- Officially nominated from the Secretary of the Navy or one of the many nomination sources available
- Recommended by Commanding Officer (if active duty) (Chief of Naval Operations, 2009a, 1–2)

### **3. OCS**

Officer Candidate School is another commissioning source but designed for individuals who have already achieved a four-year degree from an accredited institution and either want to join or continue serving in the U.S. Navy. 26% of the Surface Warfare Community are OCS graduates (Black, 2015). The mission of OCS is to,

“Develop civilians, enlisted and newly commissioned personnel morally, mentally and physically and imbue them with the highest ideals of honor, courage and commitment in order to prepare graduates for service in the fleet as Naval Officers (Chief of Naval Operations, 2009a).”

The 12-week training program consists of multiple modules designed to familiarize students with Navy culture and officer indoctrination subjects. Upon commission, officers incur a four-year service obligation. Basic eligibility requirements for OCS are as follows as stated in the *Enlisted to Officer Commissioning Programs Application Administrative Manual*:

- Must be a United States citizen

- Of good moral character and have no record of disciplinary action within three years of application
- Possess a baccalaureate or advanced degree from an accredited institution
- At least 19 years old and meet designated age limitations
- Meet specific program qualifications and aptitude scores
- Physically qualified and meet two consecutive “good-low” final Physical Readiness Test (PRT) scores prior to entry into the program
- Recommended by Commanding Officer (if active duty) (Chief of Naval Operations, 2009a, 1–3)

#### **4. STA-21**

Unlike the other sources, Seaman to Admiral-21 (STA-21) Program allows enlisted personnel serving on active duty to earn a degree and apply for a commission into the officer ranks. STA-21 replaced several previously available commissioning paths and graduates comprise 5% of the Surface Warfare Community (Black, 2015). STA-21 Officer Candidates receive pay equivalent to their enlisted paygrade and housing allowance, are eligible for promotion and receive \$10,000 per year to supplement tuition, fees and books (Chief of Naval Operations, 2009). Upon commission, STA-21 officers incur a five-year service obligation. As one of the three enlisted-to-officer accession sources, the following requirements must be met for application as stated in the *Enlisted to Officer Commissioning Programs Application Administrative Manual*:

- Must be a United States citizen (no waivers)
- Be recommended by the Commanding Officer as having good moral character, officer potential, and unquestionable loyalty to the United States
- Be serving on active duty, Full Time Support (FTS), selective reserve (SELRES), and Navy Reservists on active duty except for those on Active Duty for Training (ACDUTRA) to include Annual Training (AT), and initial Active Duty for Training (I-ACDUTRA)
- Be a high school graduate
- Be able to complete requirements for a baccalaureate degree in 36 months
- Be able to complete degree requirements and be commissioned by age 28

- Maintain a cumulative Grade-point Average (GPA) of 2.5 or better on a 4.0 scale while enrolled in STA-21
- Must obtain a minimum of 2.0 on the required calculus and physics courses
- Have a certified copy of SAT or ACT scores no older than 3 years from application due date
- Meet physical commissioning standards for appointment in the SWO option as prescribed
- Have no record of court-martial convictions or civilian felony convictions. Have no record of driving while intoxicated (DWI) or driving under the influence (DUI) within the 3 years preceding application due date. Have no record of disciplinary action under the Uniform Code of Military Justice (UCMJ), article 15, or conviction by civil court for misdemeanors during the 3 years preceding application due date
- Have passed a Physical Fitness Assessment (PFA) test taken within the year of application obtaining a good-high or better (no waivers)
- Have submitted all documentation listed for application
- Students presently enrolled in other officer accession programs are not eligible
- Individuals who have already obtained their baccalaureate degree are not eligible for STA-21 and should apply directly for OCS
- Maintain eligibility requirements during the application period and during participation in the program (Chief of Naval Operations, 2009a, 1–12)

As accession sources are unique in their eligibility requirements and demographic targets, the ultimate goal for all of these programs is to commission the officer candidates into the U.S. Navy upon fulfilling the degree or training requirements.

#### **D. SWO CAREER PATH**

In civilian occupations, job transitions are common to build experience and climb the corporate ladder. When an employee chooses to leave or is terminated, the hiring process allows for a replacement based on applications and resumes of similar experience at all levels of the organization. Unlike traditional civilian professions, the U.S. Navy must grow their own leadership based on experience solely within the Navy.



The SWO career path covers the entire career of an officer from commissioning to resignation or retirement. Near the 11-year point, the career path splits into two paths: the Executive Officer (XO) path and the Major Command (MAJ CMD) path. Although every SWO's goal should be to obtain a MAJ CMD billet and command a ship, not every SWO aspires to that position. Once accessed and commissioned in the Surface Warfare community, the career path features several milestones in training, qualifications and duty assignments for SWOs.

The four tracks as described in pages 46–49 contain many of the same basic elements and milestones but vary on the timing of completion through the career path. According to Black (2015), each of the four tracks consists of the following common milestones:

- **Basic Division Officer Course (BDOC).** Approximately two months of hands-on training, introduces officers to the requirements of being SWOs.
- **First Division Officer Tour.** The initial 24-month sea duty assignment to provide early leadership and obtain initial qualifications.
- **Advanced Division Officer Course (ADOC)/Basic Shiphandling Training (BST).** 1–3 months to provide skills and specialization and advanced DIVO training in Anti-Submarine Warfare (ASW) Weapons Tactics Instructor (WTI) and Basic Shiphandling Training (BST). This four-week course, covers 60% of platform endorsement PQS, ship handling assessment in 2<sup>nd</sup> tour platform, foundation for follow-on billet specialty training, leadership training, foundation for 2<sup>nd</sup> tour qualification EOOW/warfare coordinator.
- **Second Division Tour** is for 24 months to provide pre-Department Head (DH) skills refinement consists of quality billet selection and to obtain advanced qualifications.
- **Shore Duty.** Upon completion of the second tour, SWOs have the first opportunity at a shore duty tour. Generally, this tour is for 36 months.
- By the 7.5 year mark, the goal is to have a commitment to become a SWO DH.
- DH School for 27 weeks.
- **Department Head** sea tour(s) which can be either two 18-month tours or one 30 month tour to “fleet up” on the same ship.

- Upon conclusion of DH sea tours, near the 11 years of commissioned service (YCS) point, another opportunity for shore duty arises but the opportunity splits between the XO and CO career paths (Black, 2015).

The four tracks are designed to provide junior officers flexibility and options and empower them to have more choices in their SWO careers. Each track not only provides the common elements but also provides a unique element to distinguish it from the other tracks: Track 1 is considered the traditional path, Track 2 accelerates warfighting development, Track 3 focuses on shipboard readiness – then teaching and training our future leaders and Track 4 accelerates skillset development through career path variations (Cooper, 2015). This study focuses on the SWO career path and years of commissioned service (YCS) from date of commission to the 11-year point, when an officer decides to continue on the XO or CO path, to transfer from the SWO community or separate from the Navy altogether.

The SWO career path options from commissioning to 11 years of commissioned service (YCS) are shown in Figures 11 – 14. Tracks 1, 3, and 4 offer options for officers to serve one longer division officer tour vice two separate tours. This option largely depends on officer rotation and availability of second-tour officer positions. Track 2 only offers the single longer division officer tour vice two separate tours to define the track for growing warfighters in Anti-Submarine Warfare (ASW), Surface Warfare (SUW), Integrated Air Missile Defense (IAMD), and Amphibious Warfare (AMW) specialties (Cooper, 2015).

The SWO Track 1 career path has been the “traditional path” until June 2015 when the Navy introduced three new tracks as options. Although most of the traditional path remains intact, there are added shore duty options integrated such as Secretary of the Navy (SECNAV) Industry tours and Civilian Graduate Education as shown in Figure 11. In addition, the traditional path now has an opportunity for SWOs to apply for the Career Intermission Program during their shore duty assignment (Cooper, 2015).

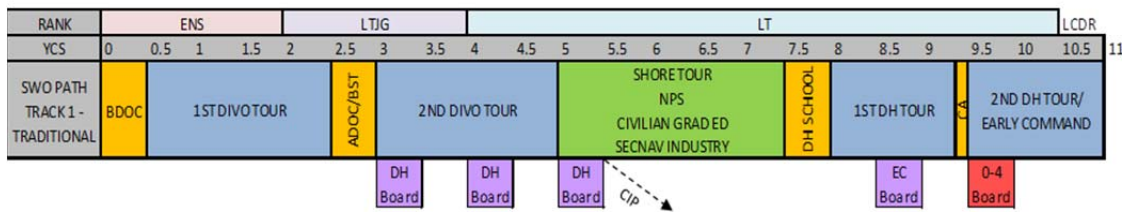


Figure 11. SWO Track 1 Career Path from Commissioning to 11 YCS.  
Adapted from Cooper (2015).

Track 2 differs slightly by driving SWOs into a tactical specialty, growing Weapons Tactics Instructors (WTI) on the “Accelerated Warfighter” track as shown in Figure 12. New initiatives empower Commanding Officers to identify tactically proficient officers and invest in the talents of those who possess a “warfighting first” mindset (Cooper, 2015). The option for a Career Intermission is included, near the seven-and-a-half-year point where the officer can apply for consideration to transfer out of active duty service to the Individual Ready Reserve (IRR) for a period of up to three years. Two months obligated service (OBLISERVE) is required for every one month of participation in the program (Navy Personnel Command, 2015a).

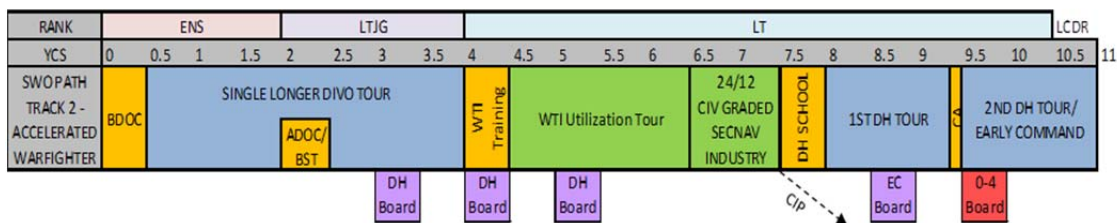


Figure 12. SWO Track 2 Career Path from Commissioning to 11 YCS.  
Adapted from Cooper (2015).

Track 3 is considered the “Enhanced Readiness” track and is designed to promote shipboard readiness expertise early on in a SWOs career as shown in Figure 13. This track recognizes a culture shift where the community now values tours considered necessary at key community production and readiness hubs such as Surface Warfare



regardless of commissioning source, age or gender. Once commissioned as an Ensign in the Navy, the promotion points and certain milestone tours of duty are pre-determined and remain fairly rigid. After completing their initial four-year obligation upon earning their degrees, SWOs have various exit opportunities such as resigning their commission or applying for the Career Intermission Program (CIP) (Black, 2015; Cooper, 2015).

## **E. WOMEN'S RETENTION IN THE MILITARY**

In civilian and military communities, family related factors influence the desire to work among men and women alike. The family pull appears to impact women's retention more than men's. Prior studies show a range of family related factors influence female retention in the SWO community (Stoker & Crawford, 2008). To address the decline in female retention, the Navy implemented policy and program adjustments to help women cope with balancing the Navy and family demands. For instance, the Navy allows 21 days adoption leave, a career intermission program, a telecommuting program, co-location (within 250 miles), and an operational deferment after the birth of a child for up to 12 months. Some of these programs are still in their infancy but are designed to give women and men options when balancing the stress of work and family life (OPNAV N134W, 2012). Also, in 1994 the Navy introduced policies such as SWOCP and the Critical Skills Retention Bonus (CSRB): tying monetary bonuses to an additional commitment in the SWO community to include two Department Head sea tours. For women, the bonus did not offset the non-monetary concerns, and female retention still declined, suggesting that monetary incentives do not motivate women as initially expected (Stoker & Crawford, 2008).

Using the Military Leadership Diversity Commission (MLDC) Report from 2010, Celik and Karakaya (2011) addressed the cumulative continuation-rate (CCR) of male and female officers in the Navy as depicted in Figure 15. Their analysis concludes that men and women have similar continuation rates during the first three years of naval service, likely due to retention, rather than promotion because the similarity occurs prior to the first competitive promotion point (Celik & Karakaya, 2011).

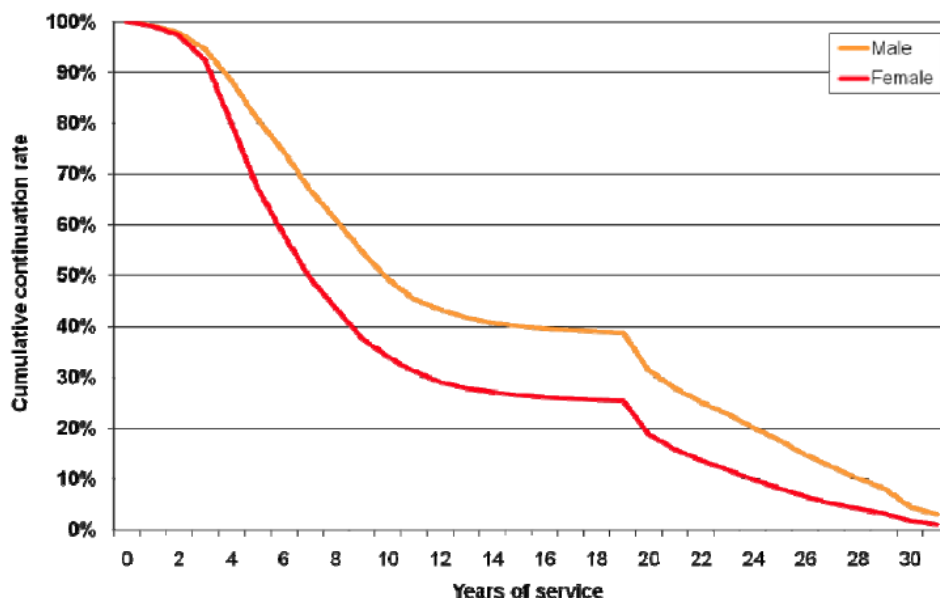


Figure 15. Cumulative Continuation Rates for Men and Women in the Navy FY2000–FY2008. Source: Celik and Karakaya (2011).

By the fourth year of commissioned service (YCS), gender differences appear until approximately YCS 12. Then, the gender gap plateaus until approximately YCS 19, with a 13 percentage point difference as officers near retirement. The gender gap narrows at a faster rate from YCS 20 to YCS 30 and ultimately differs in less than 5 percentage points after YCS 30 (Celik & Karakaya, 2011).

## F. IDENTITY OF MILITARY WOMEN

Like men, women acclimate to the military through the indoctrination processes, whether through boot camp, as an enlisted member or the various officer accession programs. These forms of basic training are designed to break-down and build-up new accessions through psychological means. This provides the foundation for continued military service.

In 1985, Downing and Roush presented The Feminist Identity Development Model for women that illustrates various stages women experience as they develop a positive feminist identity. Then, in 1991, Myers, Speight, Highlen, Cox, Reynolds, Adams and Hanley developed the Optimal Theory Applied to Identity Development

(OTAID), and applied it to oppressed groups. In 2007, Bailey took this theory one-step further and applied it to women in the military.

In Bailey's 2007 dissertation on *Invisible Warriors*, the Optimal Theory Applied to Identity Development (OTAID) developed, by Myers, Speight, Highlen, Cox, Reynolds, Adams and Hanley, is translated into five stages of identity development for military women:

- Stage 1: Civilian Identity
- Stage 2: Inductee Identity
- Stage 3: Masculinization/Militarization
- Stage 4: Synthesis
- Stage 5: Duty Identity

Bailey addresses the discrimination women feel in the military because of their sex and suggests five stages to work through the identity conflict of developing as a female warrior (Bailey D. L., 2007). Bailey's Proposed Developmental Framework for Female Military Personnel, incorporates Downing and Roush's (1985) Feminist Identity model and the Optimal Theory Applied to Identity Development created by Myers et al. (1991).

For 90% of SWOs, the first decision to stay or leave the Navy or SWO community occurs sometime between the five and seven-and-a-half year point (Black, 2015). By this time, to prove their worth in a male-dominated occupation, women often overwork themselves during their Division Officer tours and cannot envision maintaining a family and successful SWO career simultaneously, knowing what the future SWO career path holds (Clifton, 2003). The initial four to five-year commitment is fulfilled and the decision to attend Department Head School is on the horizon, which involves a follow-on commitment and two sea-going Department Head Tours of approximately 18-months each (Black, 2015). For female SWOs, this is often the most critical decision point and determines whether she will make the Navy a career. After completing the initial obligation, she has gained an understanding of what military life is like and has started developing or consolidating her identity as a military woman. The five linear stages presented in Bailey's Proposed Developmental Framework for Female Military

Personnel beginning with an introductory stage where exposure to the military may determine whether a woman decides to commit and progresses through a warrior identity stage where she fully identifies with the military lifestyle is shown in Figure 16.

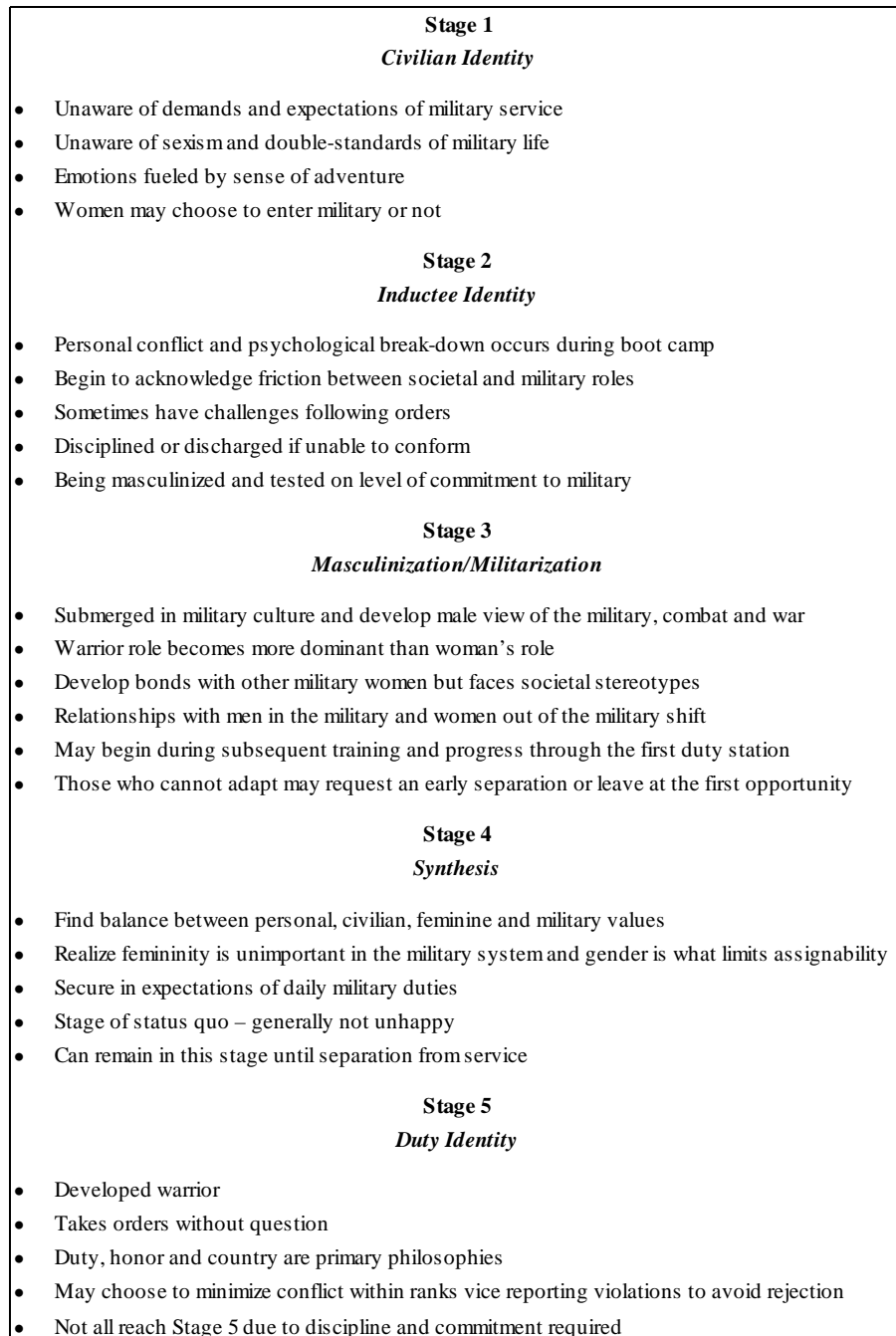


Figure 16. Proposed Developmental Framework for Female Military Personnel.  
Adapted from Bailey (2007).



After an initial five years of active duty, according to Bailey, most female SWOs have made it through Stages 1 and 2 and must decide whether their military identity and vision of their future involves the military. Bailey states, “Progress from one stage to the next depends upon successfully incorporating the challenges each developmental stage presents to the developing female warrior” (Bailey, 2007). This study will include a suggested framework of where these stages overlap with the SWO career path from commissioning to the 11-year point and how age and commissioning source play an important role in the stages of identity.

## **G. TIMING**

According to the American Business Collaboration for Quality Dependent Care 2002 report, “Women tend to be more future-oriented and have broader concerns about the way in which more demanding jobs might disrupt not only their immediate personal and family lives, but also other primary social relationships with friends and extended family that they value.” These contradictions could directly influence retention decisions throughout a woman’s career (American Business Collaboration for Quality Dependent Care, 2002).

### **1. Childbearing Years**

The age a woman has her first child or is considering childbirth is important in this analysis as it directly relates to a fundamental reason why women choose to leave the SWO community: for family-related issues (Clifton, 2003). According to 2008 census data, the average age of a first-time mother is 25.1 years old. By comparison, in 1970, the average age of a first-time mother was 21 (U.S. Department of Health and Human Services, 2015). The rate of women at age of childbirth from 1990–2013 is shown in Figure 17. In 2013, birth rates for women in their twenties declined to record lows but rose for women in their thirties and late forties, suggesting women are having children at later ages in life (U.S. Department of Health and Human Services, 2015).

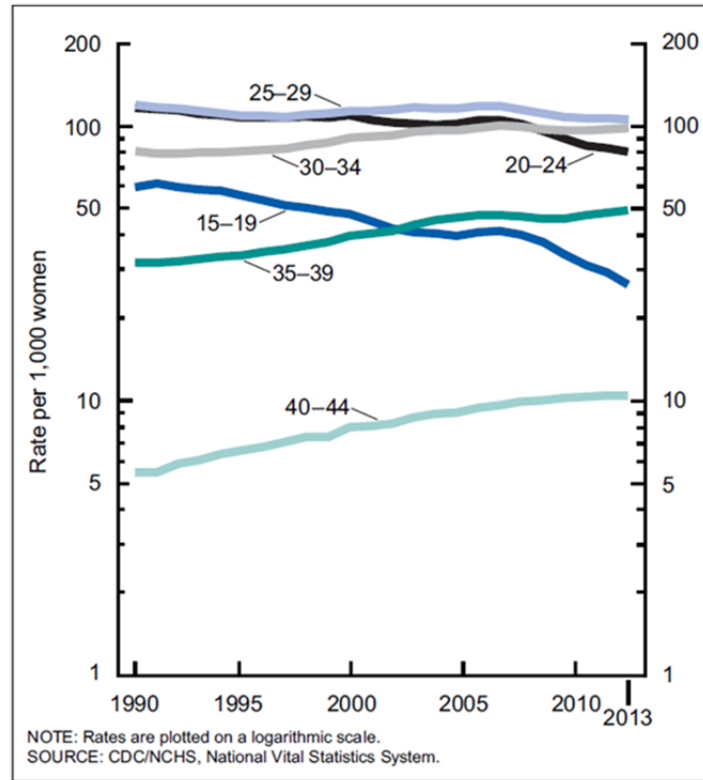


Figure 17. Rate of Women at Childbirth Age. Source: CDC/NCHS (2013).

For the purpose of this study, a five-year “optimum childbearing window” (OCW) will be utilized that coincides with the highest rate that women are having children, according to the 2015 U.S. Department of Health and Human Services report. This window will align with a woman’s 25 to 30 year-old age bracket and show where it falls on the SWO timeline. Although each female SWO will have her own idea of when she may want to begin a family, or have children, planning when to have a child in the constraints of the SWO career path often governs family timing coinciding with the female SWO career.

## 2. Promotion

The Navy promotes officers from Ensign (0–1) to Lieutenant (0–3) in two-year increments. Approximately four years after reaching the rank of Lieutenant, a promotion board reviews the eligible officers’ records and determines who will promote to Lieutenant Commander (0–4) within each career specialty. Unlike the unpredictability of

promotions in the civilian sector, SWOs can plan their career progression until they are eligible for Lieutenant Commander. The timing for a SWO becomes a particular challenge with career assignments. As a rule, the Navy expects SWOs to reach Department Head School by their 7.5-year point to maximize the number of Department Head Fitness Reports (FITREP) given prior to the Lieutenant Commander (LCDR) selection board (Navy Personnel Command, 2015b). In order to do this, even with the new career tracks as options, the path allows for minimal fluctuations, particularly for women who intend to have children.

Women who want to conceive have two choices if they want to continue on the SWO path 1) plan to have a child during their shore rotation or 2) apply for the Career Intermission Program (CIP). If a woman chooses to have a child or children at any other time than what is convenient for the Navy, she may be sacrificing the opportunity to remain in the SWO community or promote on time with her peers. For female SWOs who want multiple children, the timing becomes an even greater challenge as shore assignments are three years in length, unless an extension is required due to multiple births or consecutive pregnancies during one shore tour. If committed to the career path, a female SWO must then wait at least 3.5 years for her next shore assignment to conceive again.

*a. Shore Duty*

Professional women commonly time their pregnancies to prevent career disruptions and alleviate perceptions of weakness by their male peers while also considering the readiness impact on their units (Harrell, 1997). If a woman should conceive during sea duty, she must transfer off the ship by her 20<sup>th</sup> week of gestation, which inevitably places her SWO career on hold (Chief of Naval Operations, 2007). The transfer out of operational duty to shore duty directly affects her career progression and promotion to Lieutenant Commander, as her evaluations will show an early departure to shore duty from an operational unit. With the potential effects on promotion, it is more advantageous for a female SWO to plan conception during her shore duty than to risk future earnings.

***b. CIP***

In 2009, the Navy introduced the Career Intermission Pilot Program (CIPP) to determine, “if retention in critical skill sets can be enhanced by permitting temporary activation from active duty and providing greater flexibility in career paths of service members (Chief of Naval Operations, 2009).” The program was offered to 20 enlisted and 20 officers during 2009, 2010, 2011, and 2012. The program provides a temporary transition into the Individual Ready Reserve (IRR) for up to three years to pursue personal or professional goals outside of the Navy. This program is an attempt by the Navy to allow service members an opportunity to start a family, care for an elder, or volunteer for international aid work. Upon selection for the program, participants incur a two-month service obligation for every one-month of participation (Chief of Naval Operations, 2009). Although this program addresses some family timing concerns and is programmed into the new SWO career tracks, the program does not address the underlying reasons female SWOs leave the community and presents greater challenges upon their return to the community.

If a woman elects to participate in the program to start a family, she will eventually have to return to the SWO community and “pick-up” where she left off. Each SWO career track offers a point where SWOs can apply for the CIP as Lieutenants, prior to Department Head School (Cooper, 2015). On the surface, the program appears to address the family timing issue for women; many find that taking a three-year intermission exacerbates the problem (Chief of Naval Operations, 2009). As the SWO community is very dynamic, a three-year break will challenge the retention of warfighting skills and, in essence force the officer to re-train the atrophied skills, while trying to remain competitive with those who did not have an intermission, all while continuing to nurture her newly developed family.

**H. CHAPTER SUMMARY**

This chapter reviewed literature on the historical representation of women in the military and economic considerations when recruiting and retaining women in the military. Additionally, this chapter introduced the four primary SWO accession

programs, the SWO career path, defined a woman's primary childbearing years and introduced the Optimum Childbearing Window (OCW). These elements will develop the analysis and findings in the next chapter when discussing each SWO accession source along the career path timelines. This chapter concluded by discussing Bailey's (2007) Proposed Developmental Framework for Female Military Personnel and the importance of timing within the SWO community for family planning.

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### **III. METHODOLOGY**

#### **A. RESEARCH APPROACH**

The researcher used Bailey's (2007) Proposed Developmental Framework for Female Military Personnel to develop a preliminary understanding of the psychological stages a woman goes through when adapting to the military. Once understood, the researcher continued to review literature on female SWO retention relating to work-life balance. One particular statistic resonated:

Previous studies indicate the older an officer is at commissioning, the more likely he/she is to remain in the Surface community for a career. Officers who are commissioned at the average age of 23.6 years of age or below possibly have never worked as a civilian and joined the navy with little knowledge of all the opportunities available to them (Taylor, 2005; adapted from Duffy, 2000).

With this statistic in mind, three factors emerged as influential to female SWO retention: age, accession source, and the SWO career path. Then, narrowing the scope of research, five theses conducted in the past decade were selected that specifically addressed age, accession source, or timing of the SWO career path.

#### **B. SOURCES**

The research began with a systematic literature review of studies and theses published relating to female retention and work-life balance in male-dominated occupations. This established a foundation of knowledge and understanding of driving factors for women in these industries. Then, to narrow the scope, the researcher chose literature published within the past decade, specifically related to female SWO retention and developed three research questions. Five theses conducted by Naval Postgraduate School students and faculty from 2003–2008 were selected based on the variety of methods used to analyze female SWO retention. Despite the variation in methods, all concluded with similar results: for SWO women, family-related factors are the largest contributor to their retention decisions.

## **1. Clifton**

Clifton (2003) discovered by interviewing 12 female senior officers and 15 female junior officers that family issues influence their decisions to stay or leave the Navy. This study relies on direct accounts from officers already serving in the Navy, which allows for better insight than relying solely on quantitative data. Using the accounts of women who are experiencing first-hand the struggles associated with retention decisions adds greater validity. This study does not address accession sources and only addresses implied age when referencing senior and junior officers. This study is also limited by the small sample size and scope of the interview questions. Additionally, due to the unique situations of individual circumstances, no one female officer's experiences can ever predict the future behavior of other female officers but experiences can provide insight to other underlying factors that may be affecting retention decisions (Clifton, 2003).

## **2. Taylor**

Taylor's (2005) quantitative study examines how dependent status and accession sources are predictors of retention by gender and community. Through hierarchical logistic regression analysis, this study assesses the actual contribution of each independent variable on the dependent variable and suggests that gender plays a large role in the predictability of retention. This approach is beneficial because it allows for greater focus and comparison among the communities with the greatest female accession rates. Taylor's study finds:

- Marital and family statuses among all gender and demographics are consistently associated with increased retention, except for women officers where marital status was not significantly associated with retention.
- Gender was predictive for retention of surface warfare officers but not for the restricted line community.
- Prior enlisted service was the only significant predictor of retention for the restricted line community (2005, 43).



As Taylor addresses accession sources and gender and warfare communities, she does not address age in relation to retention for SWO females. Another limitation lies within the cohorts and data selection. Although the sample size is large enough to provide statistical significance, the data are taken from six officer cohorts from 1988–1993. These data sets pre-date the 1994 repeal of the Combat Exclusion Act and may not provide the same conclusion if the study were repeated with recent data (Taylor, 2005).

### **3. Pecenco**

Pecenco's study (2005) reveals that women transfer from Unrestricted Line to Restricted Line communities at a higher rate. This increased likelihood contributes to the low retention of female SWOs due to exit points made available along the career path. This study revealed that in order to retain women in the SWO community, the opportunities to exit or laterally transfer may also require investigation. Pecenco addressed both quantitative and qualitative retention studies using data from two cohorts. Similar to the limitations with Taylor's study, the cohort data used are from 1988–1991 and 1996–1991, again, over 20 years old and may require additional cohort data to determine whether the same exit trends exist today. Although Pecenco's study accounts for differences in commissioning source, the thesis does not address age or exit points within the SWO career path (Pecenco, 2005).

### **4. Graham**

Graham (2006) conducted an exploratory study through focus groups with 23 women and 26 men to analyze the similarities and differences between male and female SWOs who choose to leave the community. The inflexibility of the SWO career for family planning emerged as a major theme for women, which differed from the concerns of men. This study suggests that the rigid career path is a contributing factor to the retention decisions of SWO women. Similar to Clifton's study, actual accounts and experiences through focus groups help achieve an understanding of underlying gender-related factors of retention decisions. Notice the top five reasons women leave the "fast lane" compared to men as shown in Figure 18. Clearly, family time is the primary factor for women, where a change in career is the primary factor for men (Graham, 2006).

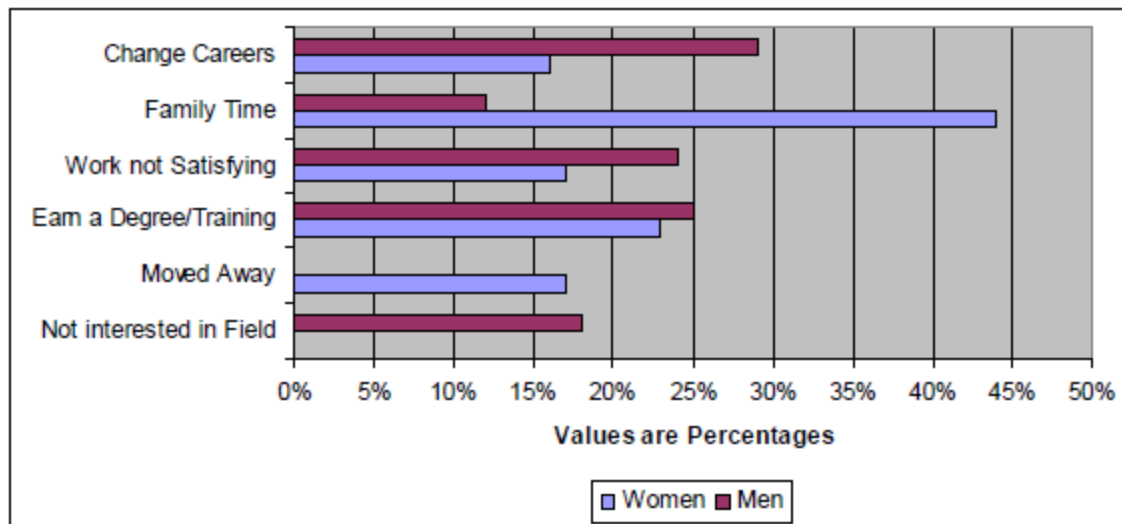


Figure 18. Top Five Reasons for Leaving the Fast Lane. Source: Graham (2006).

Graham’s study also revealed that monetary incentives do not attract women to stay in the SWO community which suggests that in order to retain women, other incentives must be explored. Although Graham identifies family planning as an issue for female SWO retention, there is no mention of how age or commissioning source may influence retention (Graham, 2006).

## 5. Stoker and Crawford

The final study reviewed, conducted by Stoker and Crawford (2008), analyzed retention and Individual Ready Reserve (IRR) survey data of officers who transitioned to the civilian sector. One benefit to this study is that the data are collected from people who have already separated from active duty and are part of the IRR. This is beneficial because the data are taken from personnel who left active duty instead of most survey data that are collected on personnel currently serving. The data revealed that among men and women in both older and younger year groups, the greatest influence to leave active duty were family-related factors. Women felt some of these factors had greater impact on their decisions to leave active duty. Additionally, Stoker and Crawford found that monetary incentives influence retention less than anticipated for women, suggesting that driving forces differ among men and women when considering exit opportunities. This study developed the theory that women do not value monetary incentives in the same way

men do. Unlike the other theses considered, this study addresses the SWO career path and explains the career path and milestones, as well as identifies the primary reasons officers chose to exit. Similar to other studies, Stoker and Crawford only reference age as “older” or “younger” year groups instead of looking at an age continuum along the SWO career path.

Of the five theses selected, family related factors were consistently identified as a primary reason women chose to leave the SWO community. Although family-related factors can be interpreted in various ways, this thesis focuses on the importance of conception timing on the SWO career path, where creating a family begins. This is accomplished by transposing an “optimum childbearing window” (OCW) on the SWO career path, addressing one facet of “family-related factors.”

Each thesis also identified that age, accession source, and the SWO career path affect female SWO retention, but until now, no thesis has addressed these factors simultaneously. This thesis continues exploring female SWO retention addressing the contributing factors of age, accession source, and the SWO career path by placing them a continuum and introduces the “optimum childbearing window” (OCW) established by referencing the 2015 U.S. Health and Human Services Report and the U.S. Navy’s biennial Pregnancy and Parenthood Survey on childbearing age. The result provides a combined timeline to show policymakers that even with recent changes, the SWO career tracks remain incongruent for women who desire families.

For women in the SWO career path, life planning is often incongruent with the inflexible milestones of the SWO career. To illustrate this, Chapter IV addresses the various SWO accession sources and places them on an age continuum of women entering the SWO community through their 11 years of commissioned service. In addition, for each accession source, Bailey’s (2007) Identity of Military Women frameworks amplify the areas of identity conflict for women along the SWO career path. This identity conflict may influence retention decisions and can ultimately play a role in a woman’s decision to stay or leave (Bailey, 2007). A detailed cost-benefit analysis is outside the scope of this study that instead focuses on age, accession sources, and pregnancy timing along the SWO career path.

### **C. DESCRIPTION OF ANALYSIS AND MODEL BUILDING PROCESS**

This study uses academic literature combined with prior studies to identify recurring themes influencing the retention of women in the SWO community. The researcher chose five Naval Postgraduate School theses based on their relevance to female SWO retention and the variety of methods used to analyze this metric. In each study, one of the most common reasons cited for leaving the SWO community was work-family conflict or the ability to plan for a family. Statistical analysis, focus groups, and interviews uncovered this theme. The researcher used the published SWO career paths to plot the expected career progression for each accession source based on age at time of commission. To depict the SWO career path versus the family planning struggle, the Optimum Childbearing Window (OCW) from ages 25–30 was added based on the 2015 U.S. Department of Health and Human Services Report to show where the childbearing years (CBY) overlap each of the career tracks. Finally, the researcher plotted Bailey's (2007) identity of military women framework on the accession source timelines to visualize where the five stages of military identity lie for female SWOs when faced with retention decisions.

### **D. CHAPTER SUMMARY**

This chapter begins by discussing the research approach and underlying questions posed by this thesis. The chapter then discusses the five recent theses conducted at the Naval Postgraduate School, by past graduate students and faculty, relating to female SWO retention and how family related factors are the primary reason women leave the SWO community. The theses reviewed topics relating to age, accession source and the SWO career path; none relates all three topics to each other by placing them on a timeline, which is the justification for this study.

## **IV. SURFACE WARFARE CAREER PATH**

### **A. INTRODUCTION**

The researcher arranged the following sections into four-figure groupings. The first figure in each group displays the SWO career path options with promotion points and accession sources as indicated. These figures are color-coded to match the career path milestones, which are later broken down into six-month age groups to show where the SWO career paths align on an age continuum based on accession source. Es indicate where the initial obligation is fulfilled, representing the first exit-point opportunity. Unless additional schooling or training commitments occur with obligated service attached, officers can generally resign their commission after completing the initial commissioning commitment. Regardless of age at time of commissioning, this study only addresses the SWO career paths from commissioning to 11 YCS, where the path splits into the XO and CO Afloat tracks. Gold blocks indicate training milestones, blue blocks indicate sea-going tours and green blocks indicate shore tours. In addition, Department Head (DH) and Early Command (EC) screening boards are in purple and 0–4 promotion board milestones are in red. Also included is the point, represented by an arrow, where the officer can apply for the Career Intermission Program (CIP) and take up to a three-year sabbatical and return to the Navy, picking up where she left off (Black, 2015).

Following the SWO career path figure in each section are three additional figures, one per accession source, outlining the career path by age. The researcher translated the career path milestones to the age continuum to better depict where the milestones lie and at what age an officer is when making these career decisions. The accession source figures highlight the “optimum childbearing window” (OCW) from ages 25 to 30 to show the minimal opportunities female SWOs have to conceive or begin families during this window, given the career path and expected milestones. The initial exit point represents the earliest point that an officer can exit, where she has met her obligated service commitment. The CIP eligibility point represents a point later in her career where she can apply for up to a three-year sabbatical to pursue personal or professional goals.

## 1. Track 1—Traditional SWO Path

The reference figure for the Traditional SWO career path to include promotions (indicated on the top ‘Rank’ line), from commissioning to the 11 years-of commissioned service (YCS) point with two distinct division officer tours is shown in Figure 19. Historically it displays the most common career path a SWO is offered regardless of commissioning source. This Track 1, Traditional Career Path will be used for comparison of the other tracks that were introduced in June 2015. On this traditional path, the first division officer tour is approximately two years, followed by six months in the Advanced Division Officer Course (ADOC) and a second division officer tour at another command. Shore duty includes the option to obtain a graduate degree or contribute to a SECNAV Industry tour. Career Intermission Program (CIP) option occurs during shore duty, at approximately the 5.5 YCS point (Black, 2015).

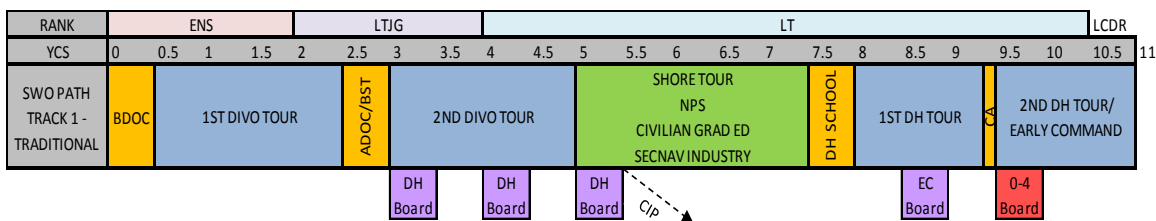


Figure 19. SWO Track 1 Traditional Career Path from Commissioning to 11 YCS. Adapted from Cooper (2015).

The following figures show the Traditional SWO career path for the four accession sources: United States Naval Academy (USNA), Naval Reserve Officer Training Corps (NROTC), Officer Candidate School (OCS) and Seaman-to-Admiral-21 (STA-21). These figures are sub-divided into six-month increments based on the officer’s age and greyed-out with the exception of the five-year optimal childbearing window, which is the focus of this study. The *yellow* represents where the degree is earned, the *gold* where the Navy schools are, *green* is shore duty. E’s indicate the end of the initial obligation and first exit opportunity and *red* stars show where the officer can apply for the Career Intermission Program (CIP). An additional childbearing year (CBY) column

provides a quick reference to the window of opportunity (in years) for SWO women to conceive without disrupting their SWO careers during shore duty.

The reader should view these figures from top to bottom, left to right. For example, the red-circled area identifies the officer's age from 17 to 37, and is sub-divided into six-month increments as shown in Figure 20. The column labeled CBY corresponds to the number of childbearing years an officer is afforded during the "optimum childbearing window" (OCW) of ages 25–30. The first row shows the career path for an officer who begins the USNA or NROTC programs at age 17. Following the traditional career path, when she reaches the OCW at age 25, she will be on the last year of her second division officer tour (indicated in blue), and at age 26, she has fulfilled her commitment to the Navy. At this point, she has the option to leave the Navy (indicated by the "E"), or transfer to shore duty for 2.5 years where she will have a traditional shore tour, earn a graduate degree or complete a SECNAV Industry tour (indicated in green). At age 26.5, during her shore tour, she can apply for the Career Intermission Program (CIP) (indicated by a red star) where she could take up to a three year sabbatical and return to the Navy at a later date. Without taking a sabbatical, at age 28.5, she attends Department Head School and subsequently reports to her first sea-going Department Head Tour at age 29 (indicated in blue). At age 30, she exits the OCW and does not have another opportunity to have children without disrupting her SWO career until she is age 32 or older. In contrast, notice the last line circled in blue. In this case, the officer was not selected until age 23 to attend the USNA or NROTC Programs. At age 25, she is still earning her degree (indicated in yellow). At age 27, she commissions, attends the Basic Division Officer Course (BDOC) (indicated in gold), and reports to her first division officer tour at age 27.5 (indicated in blue). At age 29.5, she attends the Advanced Division Officer Course (ADOC) and Basic Ship-handling Training (BST) (indicated in gold), and reports to her second division officer tour at age 30, leaving her with zero opportunities to conceive without disrupting her SWO career during the OCW. The following sections display similar figures, broken down by SWO Career Track and then separated by accession source. Although the timelines are slightly different, they are all color-coded the same for ease of interpretation.

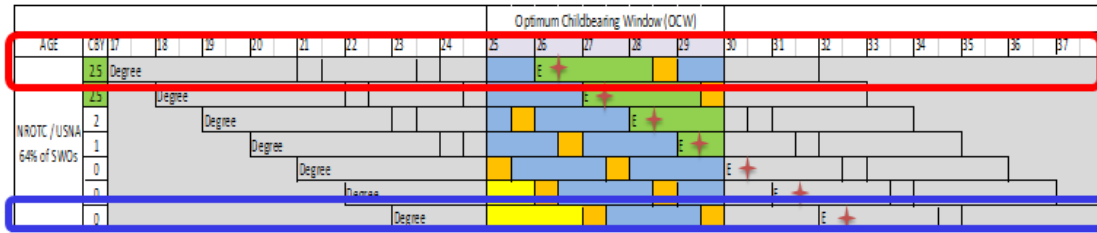
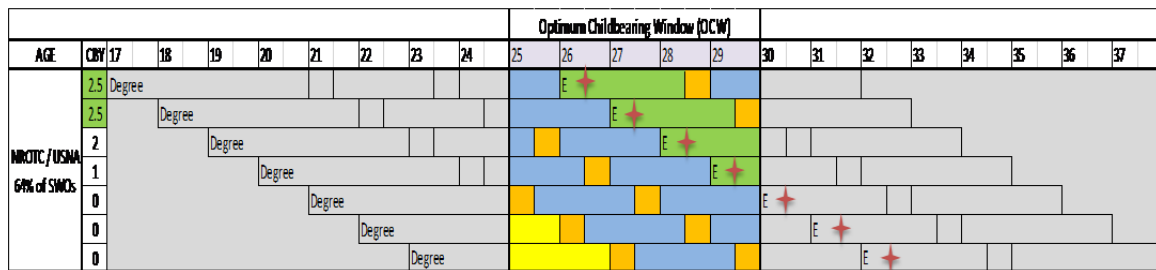


Figure 20. NROTC/USNA Traditional Career Path with 5-year Optimum Childbearing Window for Reference. Adapted from Cooper (2015).

*a. NROTC/USNA*

The Traditional SWO career path with two distinct Division Officer Tours broken down by age in six-month increments for NROTC and USNA graduates combined, making up approximately 64% of all SWOs is shown in Figure 21. Although the entrance requirements into these programs differ, the commissioning age requirements are the same. In each of these programs, officers can begin earning their degrees as early as age 17 but must earn a commission by age 27. Applicants begin on this path toward earning their bachelor's degrees as early as age 17 and can commission as young as 21. This traditional career path was the primary option for SWOs until June 2015 when the Navy opened up other career path options, or “tracks” (Black, 2015). The researcher will use the traditional path as the baseline to compare a woman’s child bearing years (CBY) in the Optimum Childbearing Window (OCW) of each of the new tracks.



Full image appears in Figure 51, in Appendix A.

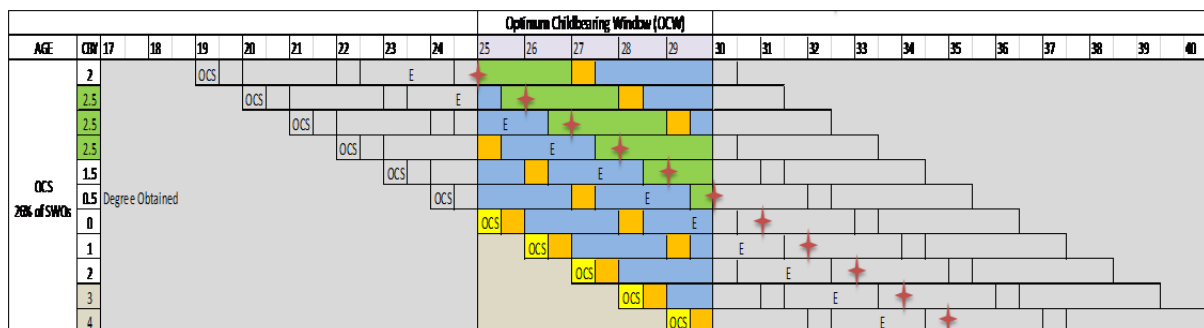
Figure 21. NROTC/USNA Traditional Career Path with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).



On the traditional path, for NROTC and USNA officers, the CBY column indicates the maximum child bearing years allocated during shore duty is 2.5 years, and becomes the basis for comparison for all other career tracks as shown in Figure 21. On the traditional path, this 2.5-year opportunity only occurs for those who have chosen to begin their SWO careers when they are 17 or 18 years old. If an officer selects this path any later, her opportunity to have her first child during the OCW decreases. If she selects at age 21 to 23, her opportunity to have a child during the OCW is zero due to the lateness of starting her SWO career and completing the expected career path milestones on time. Meaning that if she selects for the U.S. Naval Academy or NROTC program at age 21 or later, without disrupting her SWO career path, her first opportunity to conceive her first child is after age 30.

**b. OCS**

The Traditional SWO career path with two distinct Division Officer Tours, broken down by age in six-month increments for OCS graduates, making up approximately 26% of all SWOs is shown in Figure 22. In this program, officers must earn a bachelor's degree before attending Officer Candidate School, be at least 19 years old, and commission by age 29. There is a large age range of initial entry for Officer Candidate applicants as they can enter the program from civilian or military sources as long as they have earned a bachelor's degree and commission by age 29. This is the second largest accession source into the SWO community (Black, 2015).



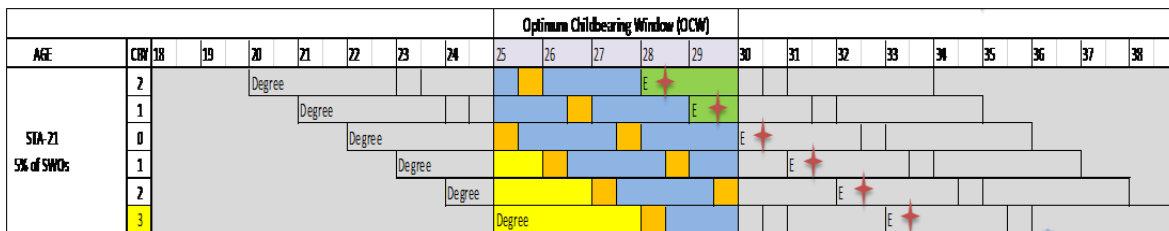
Full image appears in Figure 52, in Appendix A.

Figure 22. OCS Traditional Career Path with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

Notice in the CBY column, on this traditional path for OCS officers, the maximum allocated time allowed to conceive and have a child is up to four years, and this only occurs for those who choose to have children before entering the Navy, earn their degrees and commission at age 29. For comparison, if an OCS applicant chose to follow a similar path as a USNA or NROTC officer, upon high school graduation, she would attend a four-year university and commission at approximately age 22, then attend OCS and report to her first duty station. In this example, when she begins her SWO career at age 22 (greyed out), she would be in ADOC when she enters the childbearing window at age 25 (indicated in gold). She has an obligation to complete her second division officer tour (in blue) and transfer to shore duty at age 27.5 (in green), allowing 2.5 years to conceive during the OCW. If commissioned at age 25, her opportunity to have a child during the OCW is zero, unless she conceived prior to her Naval career. Meaning that there is a greater opportunity to conceive during the OCW if an OCS candidate has children and waits until age 28 or 29 to attend OCS and then begin her Naval career. Of note, on this path, the first exit point (indicated by an “E”), where the officer fulfills her commissioning obligation, occurs during the second division officer tour. Meaning that her first opportunity to exit, if the career path does not fit, is prior to her shore duty assignment and, in many cases, within the OCW.

*c. STA-21*

The Traditional SWO career path with two distinct Division Officer Tours, broken down by age in six-month increments for Seaman to Admiral-21 graduates, making up approximately 5% of all SWOs is shown in Figure 23. In this program, applicants are already serving on active duty in the U.S. Navy and must apply and be selected to attend a NROTC affiliated university to earn a bachelor’s degree in 36 months. They must be at least 20 years old, and commission by age 28 (Black, 2015).



Full image appears in Figure 53, in Appendix A.

Figure 23. STA-21 Traditional Career Path with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

On this traditional path, for STA-21 officers, under the constraints of the SWO career path, the CBY column indicates that the maximum time allowed to conceive and have a child during the OCW is three years for officers who choose to have children while earning their bachelor's degrees as shown in Figure 23. If a sailor is selected for the program at age 20 (greyed out) and earns her degree and commissions by age 23, she has two years during her shore duty tour (in green) that overlap the OCW. Meaning that a STA-21 applicant maximizes her time to conceive during the OCW if she waits until she selects to the STA-21 Program around age 25, keeping in mind that prior to this age, she is already committed to the U.S. Navy and serving on active duty.

## 2. Track 1—Traditional SWO Path with Single Longer DIVO Tour

The reference figure for the Traditional SWO career path to include promotions, from commissioning to the 11 years-of commissioned service (YCS) point with a single, longer division officer tour is shown in Figure 24. The largest difference in this path is that in the single-longer tour, the officer will reach the shore-duty point approximately one year earlier than if selecting the two shorter tours option. She spends that additional time on shore duty and still achieves the Department Head School milestone at approximately the 7.5-YCS point. On this path, officers spend approximately three years onboard the same ship with the Advanced Division Officer Course and Basic Shiphhandling Training occurring near the midpoint. Unlike the two distinct Division Officer Tours, once training is complete, the officer returns to the same command as previously assigned. Shore duty still includes the option to obtain a graduate degree or

contribute to a SECNAV Industry tour. There is no Career Intermission Program (CIP) option identified with this career path (Black, 2015).

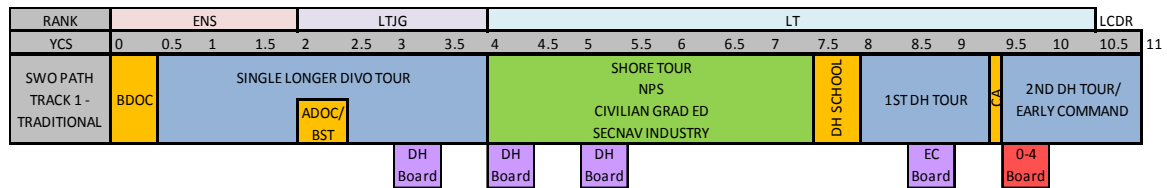
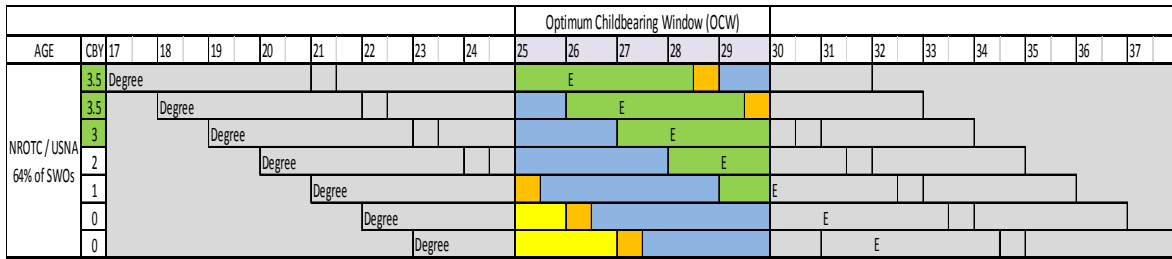


Figure 24. SWO Track 1 Traditional Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS. Adapted from Cooper (2015).

#### a. *NROTC/USNA*

Notice on the traditional path with the single, longer DIVO tour, for NROTC and USNA officers, the maximum allocated time to conceive and have a child increases to 3.5 years (indicated in CBY column), and this only occurs for those who have chosen to begin their SWO careers at ages 17 or 18 as shown in Figure 25. This added year is attributed to the early attainment of shore duty and 7.5-YCS milestone required to attend Department Head School. Similar to the traditional path with two distinct division officer tours, an officer has the greatest opportunity to conceive during the OCW if she begins her career at age 17 or 18. In contrast, if she chooses to begin her SWO career at age 22 or 23, her opportunity to conceive during the OCW is zero. Meaning that if she selects for the U.S. Naval Academy or NROTC program at age 22 or later, without disrupting her SWO career path, her first opportunity to conceive her first child is after age 30.

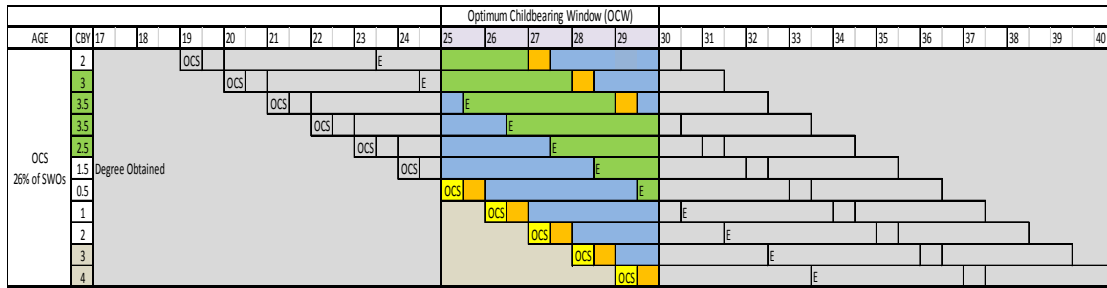


Full image appears in Figure 54, in Appendix B.

Figure 25. NROTC/USNA Traditional Career Path—Single Longer DIVO Tour with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

**b. OCS**

The traditional path with the single, longer division officer tour, for OCS officers is shown in Figure 26. Notice the CBY column where the maximum time in the OCW is four years. This only occurs for those who choose to have children before entering the Navy, earn their degrees and commission at age 29. If an OCS applicant commissions earlier, similar to the USNA and NROTC applicants, due to the extended sea tour and Department Head milestone requirement, she could have up to 3.5 years to conceive during the OCW. If she commissions at age 23 or later, her opportunity to conceive drops again to 2.5 years and decreases until age 25 where her opportunity to have a child during the OCW is 6 months, unless conceiving prior to her Naval career. Similar to the Traditional Path with two distinct tours, for OCS candidates on this path, there is a greater opportunity to conceive during the OCW if she waits until after childbirth to attend OCS and begin her Naval career.

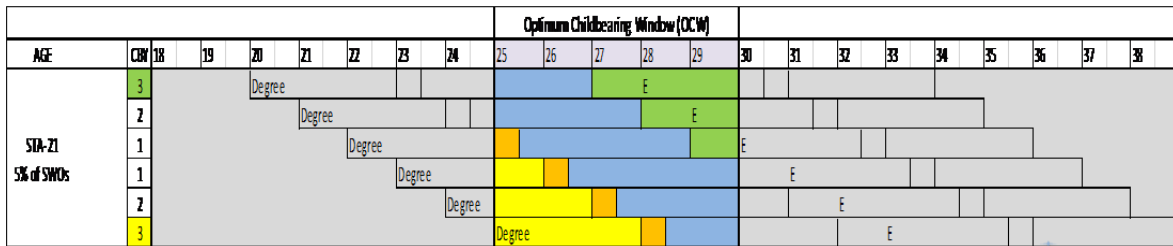


Full image appears in Figure 55, in Appendix B.

Figure 26. OCS Traditional Career Path—Single Longer DIVO Tour with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

### c. STA-21

For STA-21 officers, under the constraints of the Traditional SWO career path with the single-longer division officer tour, the maximum time allowed to conceive and have a child during the OCW is up to three years as shown in Figure 27. This only occurs for those who either select for the program and commission at age 25 or choose to have children while earning their bachelor's degrees, after selecting for the STA-21 program and commissioning around age 28. Meaning that a STA-21 applicant maximizes her time to conceive during the OCW if she selects for the program early-on in her career, at age 20, or she waits until she is selected to the STA-21 Program around age 25.



Full image appears in Figure 56, in Appendix B.

Figure 27. STA-21 Traditional Career Path—Single Longer DIVO Tour with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

### 3. Track 2—Accelerated Warfighter Path with Single Longer DIVO Tour

The reference figure for the Accelerated Warfighter with single, longer DIVO tour career path to include promotions, from commissioning to the 11 years-of commissioned service (YCS) point with a single, longer division officer tour is shown in Figure 28. The largest difference in this track compared to the Traditional Career Path with a single, longer tour is that the officer attends specialized Weapons Tactics Instructor (WTI) training before starting her shore duty WTI Utilization Tour. In addition, at approximately the 6.5 YCS point, there is an option to participate in the SECNAV Industry Tour for 24 months and then take 12 months off-duty to earn a graduate education (Black, 2015). The officers who select this path reach the shore-duty point approximately one year earlier than if selecting the two-shorter tours option and spend that additional time on shore duty, still achieving the Department Head School milestone at approximately the 7.5-YCS point. With the single, longer DIVO tour, officers spend approximately three years onboard the same ship with the Advanced Division Officer Course and Basic Shiphandling Training occurring near the midpoint. Unlike the two distinct Division Officer Tours, once training is complete, the officer returns to the same command as previously assigned. The opportunity to apply for the Career Intermission Program (CIP) option occurs around the 7.5-YCS point (Black, 2015).

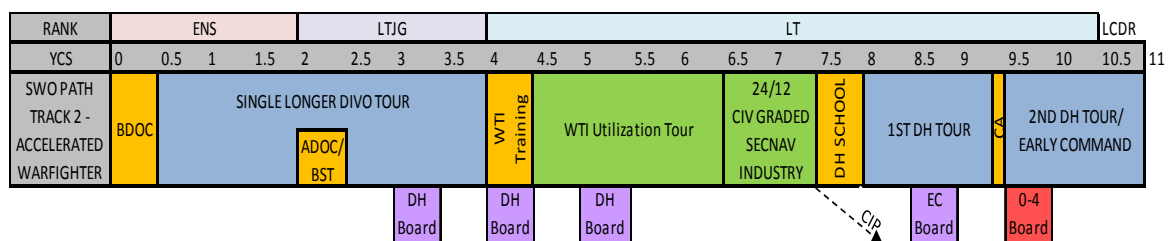
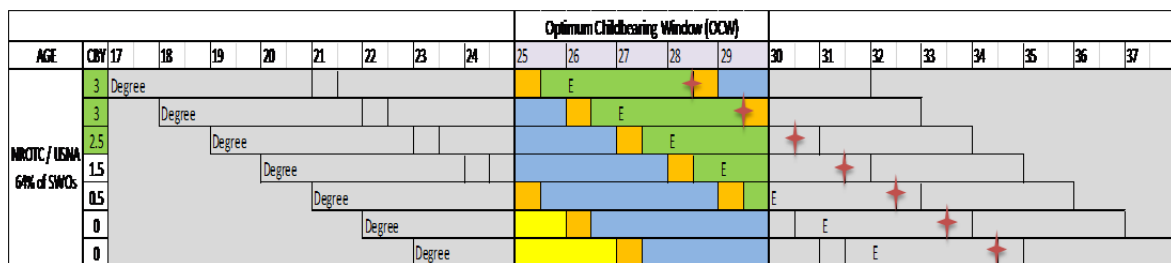


Figure 28. SWO Track 2 Accelerated Warfighter Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS.  
Adapted from Cooper (2015).

**a. NROTC/USNA**

The Accelerated Warfighter path with the single, longer DIVO tour, for NROTC and USNA officers is shown in Figure 29. On this path, the maximum allocated time to conceive and have a child is 3 years (indicated in CBY column), and this only occurs for those who have chosen to begin their SWO careers at ages 17 or 18. This added year is attributed to the early attainment of shore duty during the WTI Utilization Tour. Similar to the traditional path with the single, longer DIVO tour, an officer has the greatest opportunity to conceive during the OCW if she begins her career at age 17 or 18. In contrast, if she chooses to begin her SWO career at age 22 or 23, her opportunity to conceive during the OCW is zero. Meaning that if she selects for the U.S. Naval Academy or NROTC program at age 22 or later, without disrupting her SWO career path, her first opportunity to conceive her first child is after age 30.



Full image appears in Figure 57, in Appendix C.

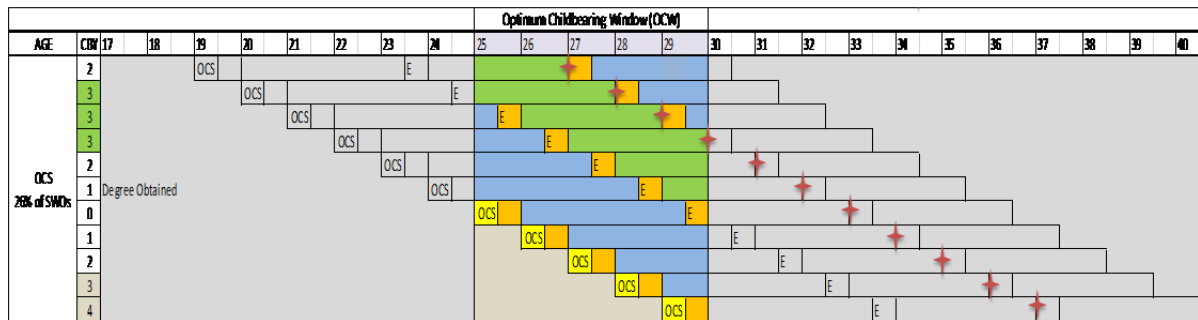
Figure 29. NROTC/USNA Accelerated Warfighter Path—Single Longer DIVO Tour with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

**b. OCS**

The Accelerated Warfighter path with the single, longer division officer tour for OCS officers is shown in Figure 30. Notice the CBY column where the maximum time in the OCW is four years. This only occurs for those who choose to have children before entering the Navy, earn their degrees and commission at age 29. This Accelerated Warfighter path is unique as it offers four other opportunities to maximize the time in the OCW at three years. If an OCS applicant commissions at ages 20–23 or age 28, she could have up to 3 years to conceive during the OCW. If she commissions at age 23–27, her



opportunity to conceive drops below the typical 2.5 years. Similar to the Traditional Path with a single, longer DIVO tour, for OCS candidates on this path, the greatest opportunity to conceive during the OCW is prior to her Naval career.

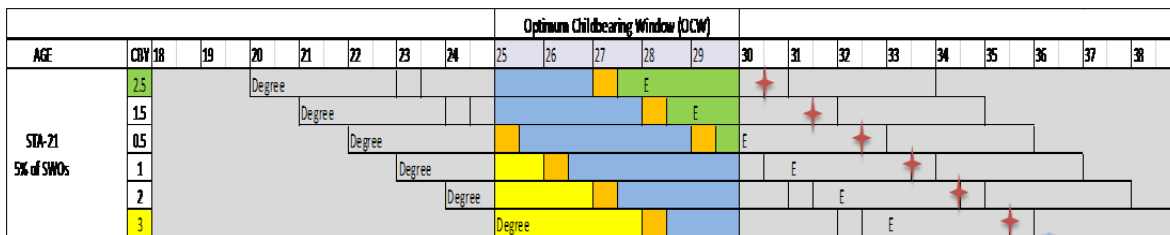


Full image appears in Figure 58, in Appendix C.

Figure 30. OCS Accelerated Warfighter Career Path—Single Longer DIVO Tour with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

### c. STA-21

For STA-21 officers, the Accelerated Warfighter Career Path with the single-longer division officer tour, the maximum time allowed to conceive and have a child during the OCW is up to three years as shown in Figure 31. This only occurs for those who choose to have children while earning their bachelor's degrees, after selecting for the STA-21 program and commissioning at age 28. The next best option is to select and commission at age 23 which would allow for 2.5 years to conceive during the OCW. Meaning that a STA-21 applicant maximizes her time to conceive during the OCW if she selects for the program at age 25 while earning her bachelor's degree.



Full image appears in Figure 59, in Appendix C.

Figure 31. STA-21 Accelerated Warfighter Career Path—Single Longer DIVO Tour with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

#### 4. Track 3—Enhanced Readiness Path

The Enhanced Readiness career path to include promotions, from commissioning to the 11 years-of-commissioned-service (YCS) point is shown in Figure 32. The largest difference in this track compared to the Traditional Career Path is that the second Division Officer tour is in a designated Engineering Department or Navigation Officer billet. Officers on this path will reach the shore-duty point near five-YCS, still achieving the Department Head School milestone at approximately the 7.5-YCS point. On this path, the first division officer tour is approximately two years, followed by six months in the Advanced Division Officer Course and a second division officer tour at another command. Shore duty includes the option to obtain a graduate degree or accept an assignment to a training or teaching command. Career Intermission Program (CIP) option occurs near the end of shore duty, at approximately the 7.5 YCS point prior to attending Department Head School (Black, 2015).

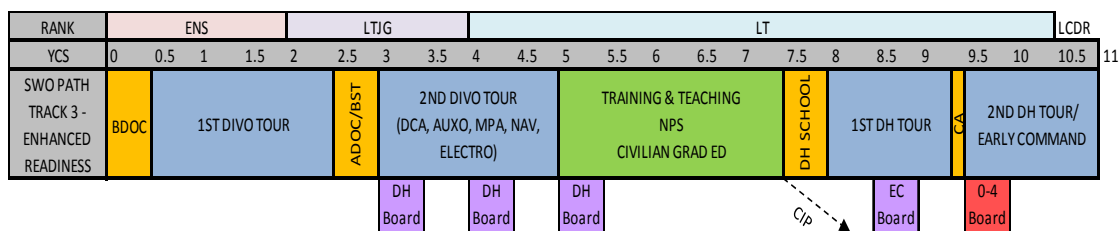
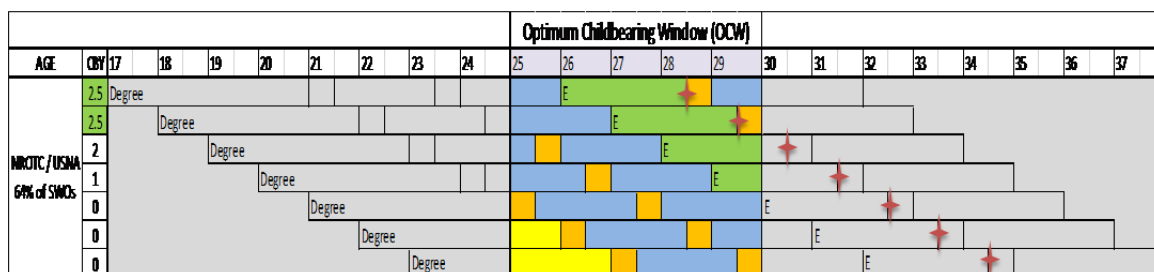


Figure 32. SWO Track 3 Enhanced Readiness Career Path—from Commissioning to 11 YCS. Adapted from Cooper (2015).

**a. NROTC/USNA**

The Enhanced Readiness path, for NROTC and USNA officers, the maximum allocated time during shore duty allowed to conceive and have a child is 2.5 years, the same as the traditional path as shown in Figure 33. On this path, the 2.5-year opportunity only occurs for those who have chosen to begin their SWO careers when they are 17 or 18 years old. If an officer selects for this path any later, her opportunity to have her first child during the OCW decreases. If she selects at age 21 to 23, her opportunity to have a child during the OCW is zero due to the lateness of starting her SWO career and completing the expected career path milestones on time. Meaning that if she selects for the U.S. Naval Academy or NROTC program at age 21 or later, without disrupting her SWO career path, her first opportunity to conceive her first child is after age 30. Although the amount of time allowed during the OCW is the same as the traditional path, the largest difference is on this path is that CIP is offered immediately following the shore duty tour, as opposed to at the beginning of the shore duty tour.



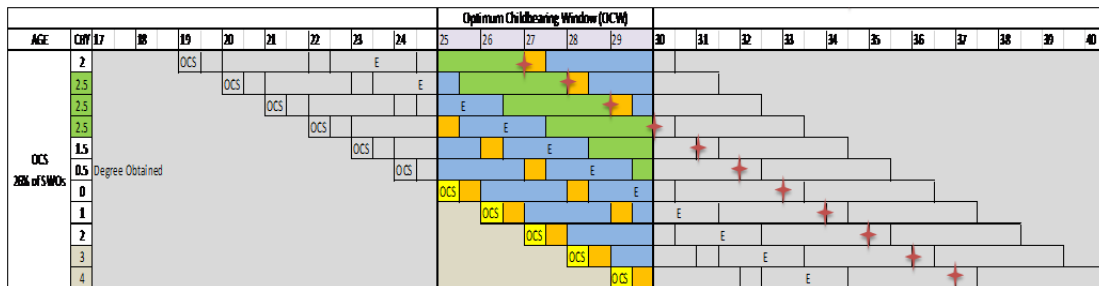
Full image appears in Figure 60, in Appendix D.

Figure 33. NROTC/USNA Enhanced Readiness Career Path with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

**b. OCS**

The maximum time allowed to conceive and have a child on the Enhanced Readiness path for OCS graduates is up to four years, and this only occurs for those who choose to have children before entering the Navy and commission at age 29 as shown in the CBY column in Figure 34. Other than the differentiation of billets offered during the second division officer tour, this path and opportunities during the OCW are identical to

the traditional path as well. Therefore, an OCS candidate maximizes her opportunity to conceive during the OCW on the Enhanced Readiness path if she waits until age 28 or 29 to attend OCS and then begins her Naval career.

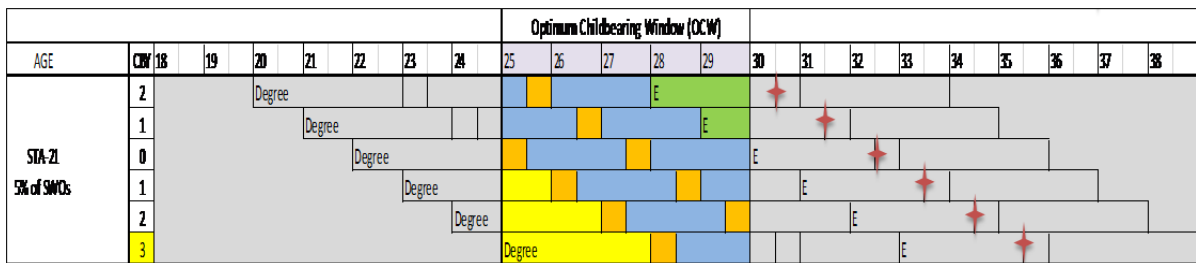


Full image appears in Figure 61, in Appendix D.

Figure 34. OCS Enhanced Readiness Career Path with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

### c. STA-21

The CBY column indicates the maximum time allowed to conceive and have a child on the Enhanced Readiness career path during the OCW is three years, as shown in Figure 35. This path also offers the same opportunities in the OCW as the traditional path for STA-21 applicants. This three-year maximum, during the OCW, is for officers who choose to have children while earning their bachelor's degrees. Meaning that a STA-21 applicant maximizes her time to conceive during the OCW if she waits until she selects to the STA-21 Program around age 25, and conceives while in school. If she chooses to focus on her degree instead of starting a family at this time, her next opportunity during shore duty to have children will be out of the OCW at age 33–35.



Full image appears in Figure 62, in Appendix D.

Figure 35. STA-21 Enhanced Readiness Career Path with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

### 5. Track 3—Enhanced Readiness Path with Single Longer DIVO Tour

The reference figure for the Enhanced Readiness career path with the Single Longer DIVO Tour to include promotions, from commissioning to the 11 years-of-commissioned service (YCS) point is shown in Figure 36. The largest difference in this track compared to the Traditional Career Path is that the second Division Officer tour is in a designated Engineering Department or Navigation Officer billet. Officers reach the shore-duty point near their five-years of commissioned service, still achieving the Department Head School milestone at approximately the 7.5-YCS point. On this path, the first division officer tour is approximately two years, followed by six months in the Advanced Division Officer Course and a second division officer tour at another command. Shore duty includes the option to obtain a graduate degree or accept an assignment to a training or teaching command. Career Intermission Program (CIP) option occurs near the end of shore duty, at approximately the 7.5 YCS point prior to attending Department Head School (Black, 2015).

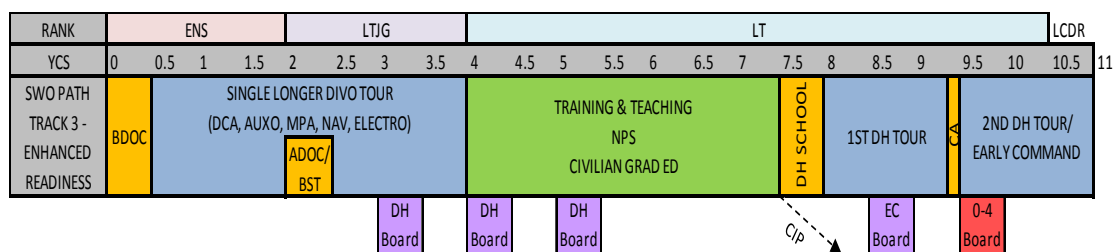
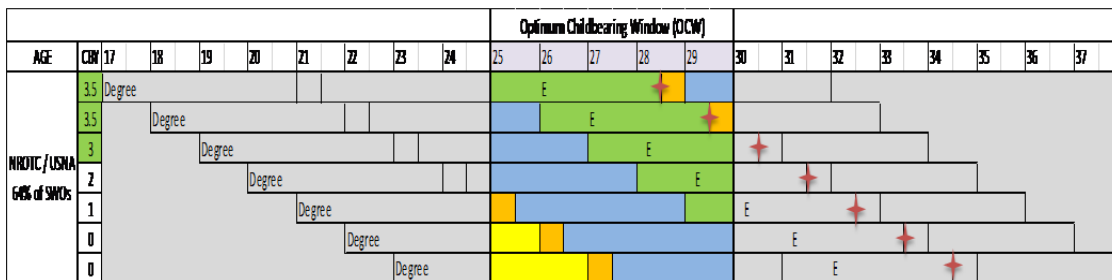


Figure 36. SWO Track 3 Enhanced Readiness Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS. Adapted from Cooper (2015).

**a. NROTC/USNA**

For NROTC and USNA officers on The Enhanced Readiness path with the single, longer DIVO tour, the maximum allocated time to conceive and have a child is 3.5 years (indicated in CBY column), and this only occurs for those who begin their SWO careers at ages 17 or 18 as shown in Figure 37. If an officer chose to begin at age 19, she would still have three years in the OCW, which is more than the Traditional Career Path but less than the maximum opportunity on this path. This added year is attributed to the early attainment of a shore duty Training and Teaching assignment or obtaining a graduate degree. Similar to the traditional path with the single, longer DIVO tour, an officer has the greatest opportunity to conceive during the OCW if she begins her career at age 17 or 18. In contrast, if she chooses to begin her SWO career at age 22 or 23, her opportunity to conceive during the OCW is zero. Meaning that if she selects for the U.S. Naval Academy or NROTC program at age 22 or later, without disrupting her SWO career path, her first opportunity to conceive her first child is after age 30.



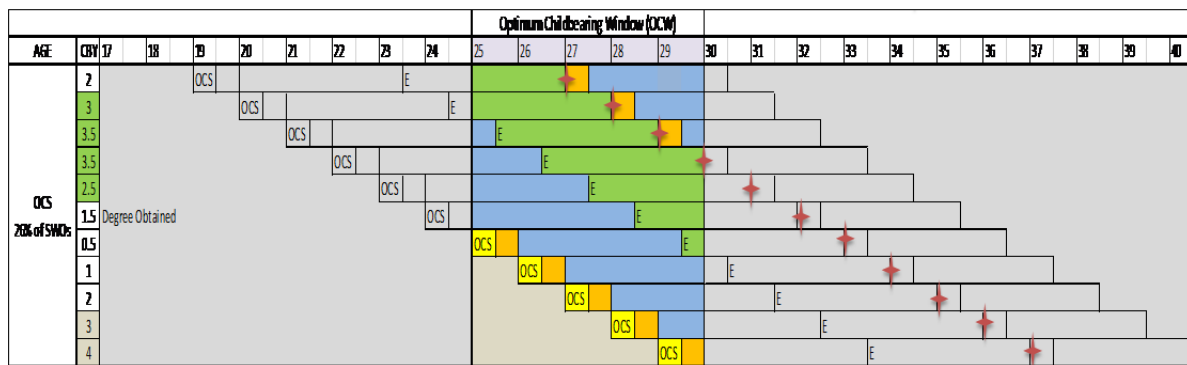
Full image appears in Figure 63, in Appendix E.

Figure 37. NROTC/USNA Enhanced Readiness Career Path—Single Longer DIVO Tour with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

**b. OCS**

The Enhanced Readiness path with the single, longer division officer tour for OCS officers is shown in Figure 38. Notice the CBY column where the maximum time in the OCW is four years, similar to the other OCS options with the single, longer DIVO tour. Again, this only occurs for those who choose to have children before entering the

Navy, earn their degrees and commission at age 29. This Enhanced Readiness path is unique as it offers four other opportunities to maximize the time in the OCW at three years or more. If an OCS applicant commissions at ages 20–22 or age 28, she could have up to 3.5 years to conceive during the OCW. If she commissions at age 23, her opportunity is the same 2.5 years as the Traditional path. If she commissions at ages 24–27, her opportunity to conceive drops below the typical 2.5 years. Like the other OCS paths, the greatest opportunity to conceive during the OCW is prior to her Naval career. This path overall offers greater opportunities than most of the other programs because commissioning at ages 21 or 22 will also allow for 3.5 years in the opportunities in the OCW where most other paths only allow for 2.5 to 3 years in the OCW.

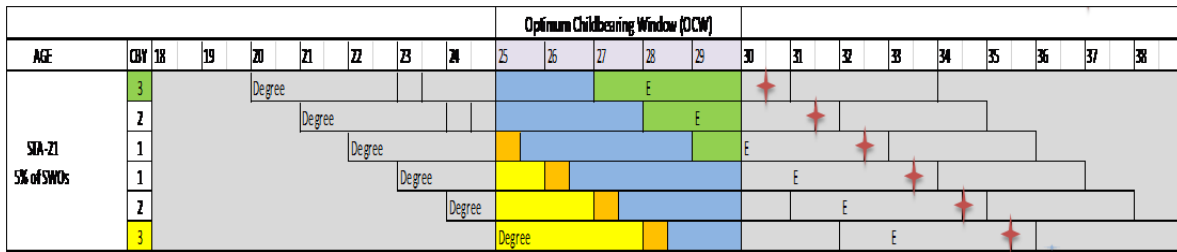


Full image appears in Figure 64, in Appendix E.

Figure 38. OCS Enhanced Readiness Career Path—Single Longer DIVO Tour with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

### c. STA-21

For STA-21 officers, the Enhanced Readiness Career Path with the single-longer division officer tour, the maximum CBY in the OCW is up to three years as shown in Figure 39. This only occurs for two groups: those who are selected for the program at age 20 and commission at age 23, or those who are selected at age 25 and are in the OCW while earning a bachelor's degree and commissioning at age 28. Meaning that at any other time on this career path, a STA-21 applicant has fewer CBY in the OCW than if she were to stay on the traditional path.



Full image appears in Figure 65, in Appendix E

Figure 39. STA-21 Enhanced Readiness Career Path—Single Longer DIVO Tour with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

## 6. Track 4—Accelerated Skillset Development Path

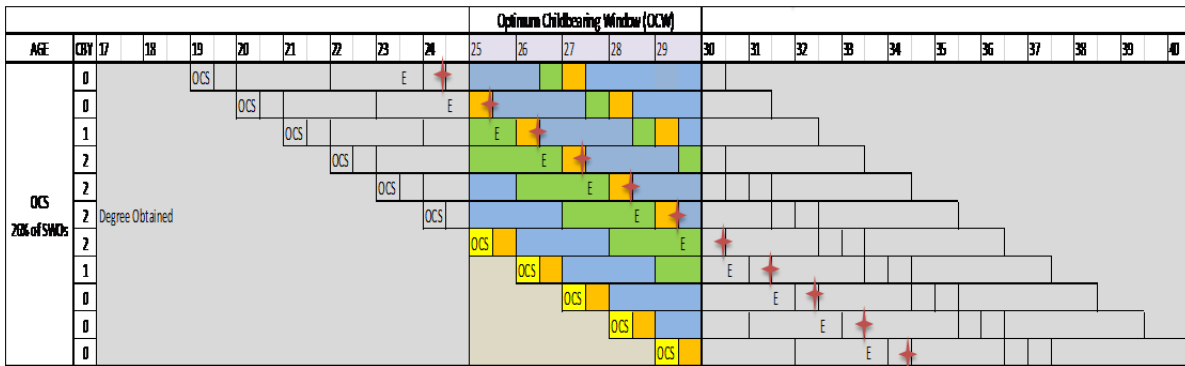
The reference figure for the Accelerated Skillset Development career path to include promotions, from commissioning to the 11 years-of commissioned service (YCS) point is shown in Figure 40. The largest difference in this track compared to the Traditional Career Path is that after the first Division Officer Tour there is only two years in a specialized shore duty assignment to develop skills in the Operations Analysis (OA), Financial Management (FM), Acquisitions (ACQ), Anti-submarine Warfare (ASW) or Combat Systems (CS) fields (Black, 2015). It is important to note that all of the other career paths have shore tours of at least two-and-a-half years, which is usually when female officers would choose to align their pregnancies. This path splits the shore time into a two-year segment and a later, six-month segment. After the specialized shore tour, the officer then attends the Advanced Division Officer Course/Basic Shiphandling Training (ADOC/BST) and a second division officer tour at another command. After completion of the two-year second Division Officer tour, the officer has a six-month shore assignment followed by the Department Head School milestone at approximately the 7.5-YCS point. Career Intermision Program (CIP) option occurs just prior to the second Division Officer tour, at approximately the five YCS point.





**b. OCS**

The Accelerated Skillset Development Career path with two distinct DIVO tours, for OCS officers is shown in Figure 42. This path also differs from the others as the maximum CBY in the OCW is two years, which is six months less than the Traditional Path's 2.5 years. To achieve the maximum CBY in the OCW on this path, an officer would have to begin her SWO career between ages 22 and 25. Beginning at any other time would not allow her to maximize her CBY in the OCW, should she choose to begin a family. Again, choosing the Traditional Path allows for more childbearing years in the OCW than the Accelerated Skillset Development path.

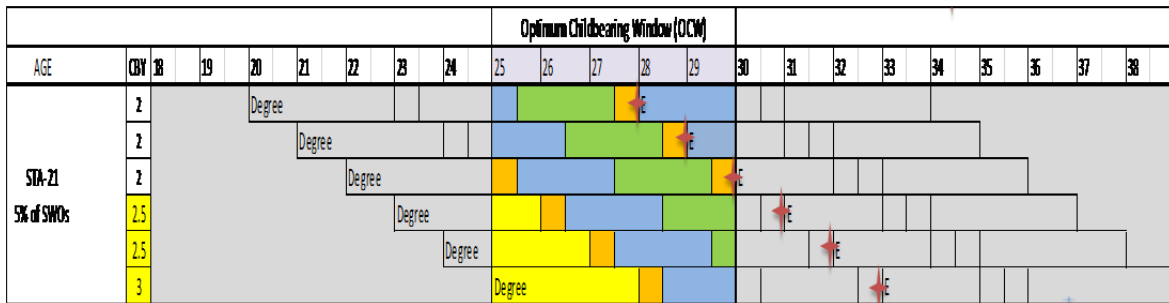


Full image appears in Figure 67, in Appendix F.

Figure 42. OCS Accelerated Skillset Development Career Path with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

**c. STA-21**

The Accelerated Skillset Development path for STA-21 officers allows for more childbearing years in the OCW than the other accession sources as shown in Figure 43. It also allows for more CBY than the traditional path, as long as the officer selects and begins the program at age 25. If selected at age 24, she has 2.5 CBY in the OCW, the same as the Traditional path. Again, similar to other paths for STA-21 officers, the maximum CBY in the OCW is three years and only occurs at age 25 while she is earning her bachelor's degree.



Full image appears in Figure 68, in Appendix F.

Figure 43. STA-21 Accelerated Skillset Development Career Path with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

## 7. Track 4—Accelerated Skillset Development Path with Single Longer DIVO Tour

Finally, the reference figure for the Accelerated Skillset Development Path with the Single Longer DIVO Tour to include promotions, from commissioning to the 11 years-of commissioned service (YCS) point is shown in Figure 44. This path is quite different from the Accelerated Skillset Development Path with two distinct DIVO tours as the skillset development shore tour and a utilization shore tour are concurrent, allowing for up to 3.5 years of shore duty, at two different commands. Officers spend the first shore tour developing skills in the Operations Analysis (OA), Financial Management (FM), Acquisitions (ACQ), Anti-submarine Warfare (ASW) or Combat Systems (CS) fields and then transfer to a two-year utilization tour. Upon completion of the utilization tour, they transfer to Department Head School at approximately the 7.5-YCS point. Career Intermission Program (CIP) option occurs near the end of the sea duty tour, at approximately the 4-YCS point, prior to both shore tours (Black, 2015).

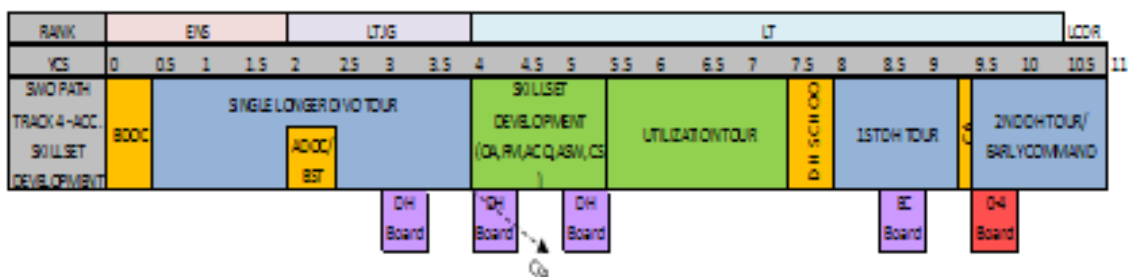
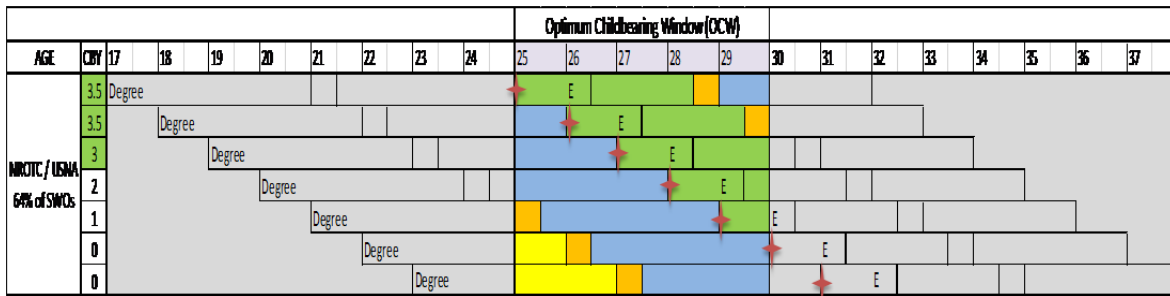


Figure 44. SWO Track 4 Accelerated Skillset Development Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS. Adapted from Cooper (2015).

*a. NROTC/USNA*

On the Accelerated Skillset Development path with the single, longer DIVO tour, for NROTC and USNA officers, the maximum allocated time to conceive and have a child is 3.5 years (indicated in CBY column), and this only occurs for those who begin their SWO careers at ages 17 or 18 as shown in Figure 45. If an officer chose to begin at age 19, she would still have three years in the OCW, which is more than the Traditional Career Path but less than the maximum opportunity on this path. This added year is attributed to the early attainment of the skillset development shore tour and the follow-on utilization tour. An officer has the maximum CBY during the OCW if she begins her career at age 17 or 18. In contrast, if she chooses to begin her SWO career at age 22 or 23, her opportunity to conceive during the OCW is zero. Meaning that if she selects for the U.S. Naval Academy or NROTC program at age 22 or later, without disrupting her SWO career path, her first opportunity to conceive her first child is after age 30.

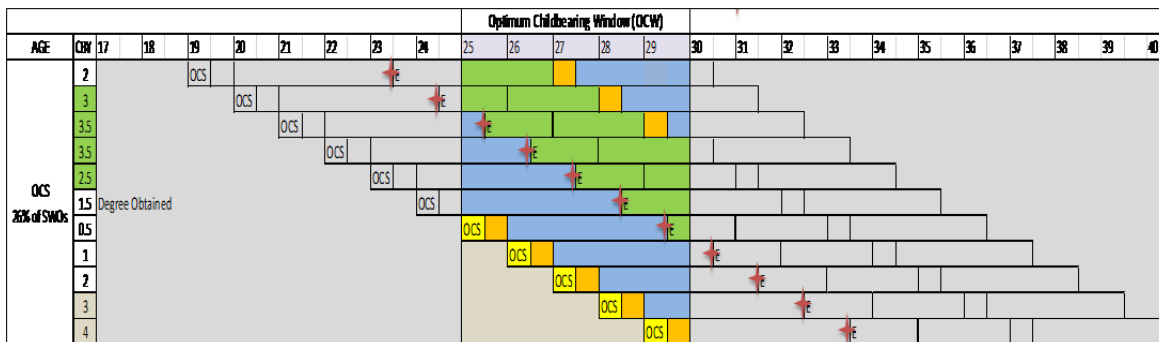


Full image appears in Figure 69, in Appendix G.

Figure 45. NROTC/USNA Accelerated Skillset Development Career Path—  
Single Longer DIVO Tour with 5-year Optimum Childbearing  
Window. Adapted from Cooper (2015).

### b. OCS

The Accelerated Skillset Development path with the single, longer division officer tour for OCS officers is shown in Figure 46. Notice the CBY column where the maximum time in the OCW is four years, similar to the other OCS options with the single, longer DIVO tour. Again, this only occurs for those who choose to have children before entering the Navy, earn their degrees and commission at age 29. This Accelerated Skillset Development path offers four other opportunities to maximize the time in the OCW at three years or more. If an OCS applicant commissions at ages 20–22 or age 28, she could have up to 3.5 years to conceive during the OCW. If she commissions at age 23, her opportunity is the same 2.5 years as the Traditional path. If she commissions at ages 24–27, her opportunity to conceive drops below the Traditional path’s 2.5 years. Like the other OCS paths, the greatest opportunity to conceive during the OCW is prior to her Naval career. This path overall offers greater opportunities than most of the other programs because commissioning at ages 21 or 22 will also allow for 3.5 years in the opportunities in the OCW, one year more than the Traditional path with the single, longer DIVO tour.

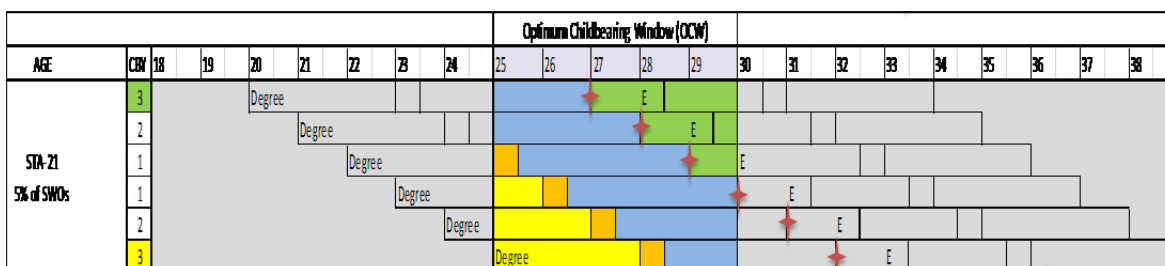


Full image appears in Figure 70, in Appendix G.

Figure 46. OCS Accelerated Skillset Development Career Path—Single Longer DIVO Tour with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

### c. STA-21

For STA-21 officers, the Accelerated Skillset Development Path with the single-longer division officer tour, the maximum CBY in the OCW is up to three years as shown in Figure 47. Again, this only occurs for two groups: those who are selected for the program at age 20 and commission at age 23, or those who are selected at age 25 and are in the OCW while earning a bachelor's degree and commission at age 28. Meaning that at any other time on this career path, a STA-21 applicant has fewer CBY in the OCW than if she were to stay on the traditional path.



Full image appears in Figure 71, in Appendix G.

Figure 47. STA-21 Accelerated Skillset Development Career Path—Single Longer DIVO Tour with 5-year Optimum Childbearing Window. Adapted from Cooper (2015).

## **B. FIVE STAGES OF FEMALE MILITARY IDENTITY**

To better understand the level of psychological commitment to the organization a female officer has during different stages in her career, the researcher took Bailey's 2007 Proposed Developmental Framework for Female Military Personnel and placed it on an age continuum by accession source. Depending on the age at which a woman begins her SWO career, she will be in different developmental stages at different career decision points. As human decision-making is unpredictable, Bailey's frameworks are dynamic and not intended to have a definitive start or stopping point through each stage. These frameworks help examine a female SWOs level of commitment to the military and how age at accession, and subsequently age at the exit points, may influence her retention decisions.

Bailey's model describes five developmental identity stages:

- Stage 1: Civilian Identity—occurs prior-to beginning a military career where the choice is made to enter the military and applicants are unaware of demands, expectations and double-standards of military life
- Stage 2: Inductee Identity—occurs during onset of military service, during initial training, where applicant is tested on level of commitment to military service and begins to conform or is separated from service
- Stage 3: Masculinization/Militarization—occurs once submerged in military culture and the warrior role dominates the woman's role; may begin during first duty assignment to initial exit opportunity
- Stage 4: Synthesis—occurs once established in military role and understand hierarchy of expectations between personal, civilian, feminine and military values; Status quo—can remain at synthesis until separation from service
- Stage 5: Duty Identity—Duty, honor and country are primary philosophies in the developed warrior; some never reach duty identity due to discipline and commitment required

### **1. NROTC/USNA**

Bailey's proposed stages of military identity, adapted for the NROTC/USNA officer career path is shown in Figure 48. The age at program entry shifts the stages of military identity accordingly. The blue stars indicate the first exit point opportunity along

the career path. Notice that the later a NROTC/USNA candidate begins the program, the developmental stage she achieves during the OCW also shifts. Whereas, officers who are accepted to the NROTC or USNA programs at ages 17–19 are approaching the synthesis stage at the first career exit point, within the Optimum Childbearing Window (OCW). According to this model, the officers who struggle with adapting to the military lifestyle or have conflicting values will remain in the Masculinization/Militarization stage and exit at the first opportunity, while the others will remain and progress into the Synthesis stage and continue their military careers. Also, notice that the older officers who select for the NROTC or USNA programs at ages 20–24 may not reach the synthesis stage during the OCW. As NROTC and USNA graduates comprise of 64% of all SWOs, this later timing may influence retention decisions and level of commitment if unable to begin a family until age 29 or later.

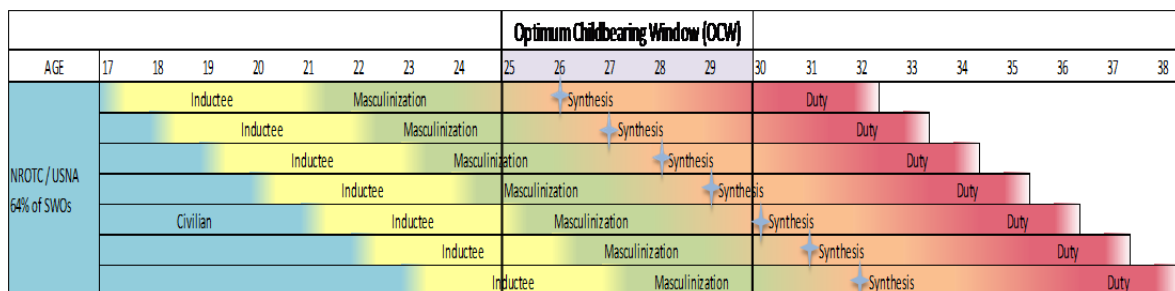


Figure 48. NROTC/USNA Stages of Military Identity.  
Adapted from Bailey (2007).

## 2. OCS

The OCS program is unique and due to the variations of prior military service members' entry points, exit points and Bailey's developmental framework, the prior military service OCS applicants are not included in this portion of analysis. As the variation of time in service, age and stage each officer achieved prior to the OCS program, Bailey's frameworks would differ on an individual basis. In general, considering age at program entry, a prior-service OCS applicant's stages would be a combination of the non-prior service OCS stages and the STA-21 stages.



Bailey's proposed stages of military identity for non-prior service, OCS applicants is shown in Figure 49. Notice the minimal amount of time allocated in the Inductee stage. This is due to an OCS officer's 12-week military schooling requirement prior-to commission. Similar to the NROTC/USNA stages, non-prior service OCS officers reach their first exit opportunity between the Masculinization/Militarization Stage and the Synthesis Stage. For officers entering the program at ages 20 or 21, the first exit point is before entering the OCW. This option may influence officers whose values do not align with the military to exit before starting a family. As the OCS program offers a 10-year entry window and makes up 26% of all SWOs, it also offers more first-time exit opportunities in the OCW.

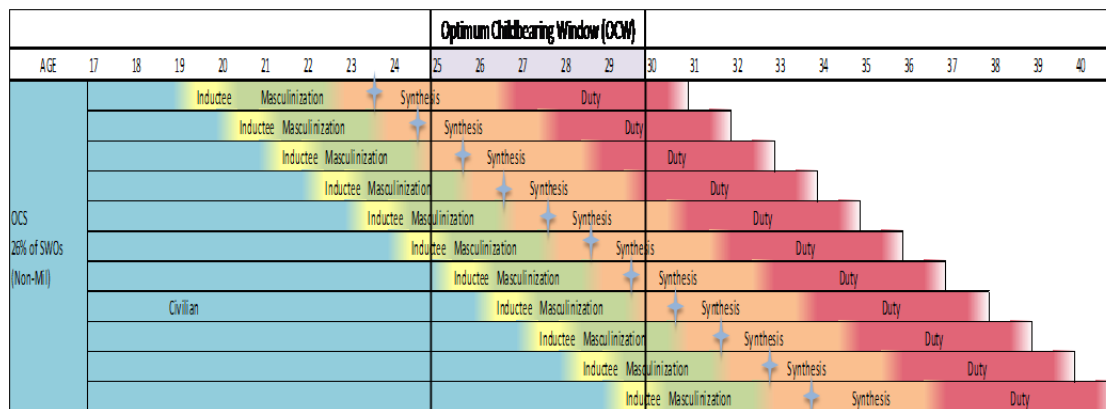


Figure 49. Non-prior Service OCS Stages of Military Identity.  
Adapted from Bailey (2007).

### 3. STA-21

Bailey's proposed stages of military identity, adapted for one version of the STA-21 officer career path is shown in Figure 50. This assumes the Officer Candidate enlists in the Navy at age 18 and enters the STA-21 program between ages 20 and 25, meeting STA-21 age requirements. Of note, not all STA-21 officers begin their careers at age 18 and commission between ages 20 and 25. In this regard, these candidates can enlist in the Navy after age 18 provided they are accepted to the STA-21 program and commission by age 28. After program acceptance, these candidates have a maximum of 36 months to earn a bachelor's degree while in an active-duty status.

For ease of interpretation, Figure 50 also assumes the STA-21 officer's military career began as an enlisted service member, in boot camp, at age 18 (the earliest age possible) and the green stars display the STA-21 program entry point along each path. As these officers began as enlisted sailors, they progress through the military stages at different points than the other accession sources. These officers achieve the Synthesis and possibly the Duty Identity Stages in the OCW, after STA-21 program acceptance and well before the first exit opportunity due to the uninterrupted time in the military, beginning at age 18. This is significant, as these officers will already have 10 years or more of active-duty service when they reach the first exit point in the OCW, so they are more likely to consider a longer military career, being halfway to retirement. Although STA-21 officers make up only 5% of all SWOs, the level of commitment to the military during the OCW and at the first exit opportunity may be higher due to the amount of time already invested in their military careers. For candidates selected to the STA-21 Program at age 25, the first exit point is at age 33 when the officer has 15 years of military service. With the current military retirement options, it is unlikely that these officers will choose to leave the military before committing the final five years.

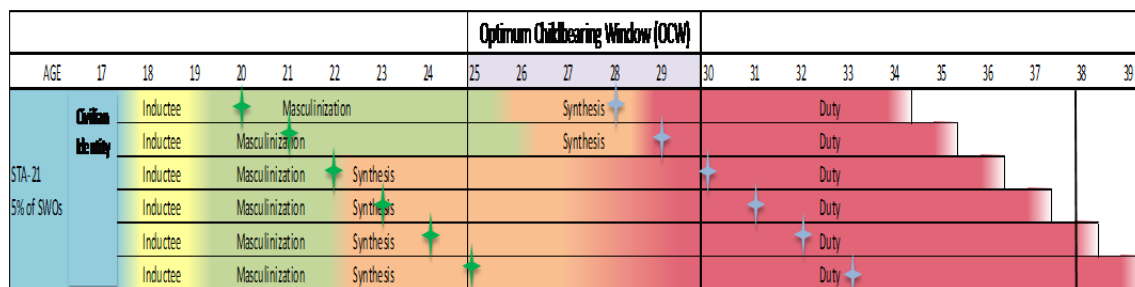


Figure 50. STA-21 Stages of Military Identity. Adapted from Bailey (2007).

### C. FINDINGS

Women are an integral part of the work force, providing unique perspectives, contributions and diversity in the workplace. The Navy also employs women in a variety of ways, but it struggles to keep them in the Surface Warfare community. Prior studies revealed that family related factors were a primary reason women chose to leave the SWO community. Each study concluded that age, accession source, or the SWO career

path contributed to female SWO retention, but until now, no study has addressed these factors simultaneously.

### **1. Optimum Childbearing Window Comparison**

Focusing on how the SWO career path aligns with the five-year “optimum childbearing window” (OCW) during ages 25 to 30, the researcher developed a minimum childbearing requirement. Considering a 40-week gestational period and one-year operational deferment postpartum, the minimum amount of time a female SWO would require to have a child without affecting her SWO career is approximately 22 months, provided there are no complications and she conceives immediately upon entering the OCW. For the purpose of this study, the researcher rounded the gestational and operational deferment time to 24 months to coincide with the timeline’s six-month increments for ease of interpretation. Therefore, the absolute minimum time in the OCW should be no less than two years. Any career path and accession source with fewer than two childbearing years in the OCW has a greater risk of affecting a female SWO’s career timing.

### **2. Maximum Years in the Optimum Childbearing Window**

The maximum years in the OCW by age, career path, and accession source are summarized in Table 2. This table includes the age at program entry and age at which the officer will maximize her years in the OCW on the chosen career path. For example, the maximum opportunity in the OCW a female SWO has on any path is four years. This only occurs for OCS graduates who choose to begin a family before joining the Navy, enter the program at age 29, and select Tracks 1, 3, or 4 with either the single longer DIVO tour or two distinct DIVO tours.

Table 2. Summary Table of Maximum Years in Optimum Childbearing Window by Age, Career Path, and Accession Source

SWO Career Path	DIVO Tours	Commissioning Source	Max Childbearing Years in OCW	Age at Program Entrance	Age at Max Years in OCW
Track 1 - Traditional	Two Distinct DIVO Tours	NROTC/USNA	2.5	17	26
				18	27
		OCS	4*	29	25
			2.5	20	25.5
				21	26.5
				22	27.5
	STA-21	3	25	25	
	One Single DIVO Tour	NROTC	3.5	17	25
				18	26
		OCS	4*	29	25
			3.5	21	25.5
		22		26.5	
		STA-21	3	20	27
		25	25		
Track 2 - Accelerated Warfighter	One Single DIVO Tour	NROTC/USNA	3	17	25.5
				18	26.5
		OCS	3	20	25
				21	26
			22	27	
STA-21	3	25	25		
Track 3 - Enhanced Readiness	Two Distinct DIVO Tours	NROTC/USNA	2.5	17	26
				18	27
		OCS	4*	29	25
			2.5	20	25.5
				21	26.5
				22	27.5
	STA-21	3	25	25	
	One Single DIVO Tour	NROTC/USNA	3.5	17	25
				18	26
		OCS	4*	29	25
			3.5	21	25.5
		22		26.5	
		STA-21	3	20	27
		25	25		
Track 4 - Skillset Development	Two Distinct DIVO Tours	NROTC/USNA	2	19	25.5
				20	26.5
				21	27.5
		OCS	4*	29	25
			2	22	25
				23	26
				24	27
				25	28
	STA-21	3	25	25	
	One Single DIVO Tour	NROTC/USNA	3.5	17	25
				18	26
		OCS	4*	29	25
			3.5	21	25.5
		22		26.5	
		STA-21	3	20	27
				25	25

\* Before entering Navy

The next best option to maximize OCW years is for OCS or NROTC/USNA officers to choose one single, longer DIVO tour on Tracks 1, 3, or 4. These career paths allow a maximum time of 3.5 years in the OCW during a SWO career. The maximum years in the OCW only occurs for OCS officers who begin the program at ages 21 or 22 and NROTC/USNA officers who begin at ages 17 or 18. As the table shows, a NOTC or USNA officer beginning at ages 17 or 18 is age 25 or 26, respectively, when she enters the OCW without disrupting her career.

Of all career paths and accession sources, maximizing three childbearing years in the OCW is most common, with nine occurrences. Unique to other career paths, Track 2 only offers a three-year maximum OCW for all accession sources. This three-year maximum on Track 2 only occurs for NROTC/USNA officers who begin the program at ages 17 or 18, for OCS officers who begin the program at ages 20 to 22 and for STA-21 officers who begin the program at age 25. Unlike NROTC/USNA or OCS options, STA-21 SWOs on all tracks (single longer and two distinct tours) maximize their opportunity in the OCW at three years. This only occurs if the STA-21 officer enters the program at age 25 and has her child while earning her Bachelor's Degree. If she enters the STA-21 program at any other age, she will have less than three years in the OCW. For planning purposes, gestational time and the one-year operational deferment, a minimum of 2.5 years in the OCW is suggested (Chief of Naval Operations, 2007). The career paths with a maximum of 2.5 years in the OCW is for NROTC/USNA officers and OCS graduates who select the two distinct division officer tours on Tracks 1 or 3. This only occurs for NROTC/USNA officers who enter the program at ages 17 or 18 or for OCS officers who enter the program at ages 20–22. In this case, both NROTC/USNA and OCS officers are better off choosing a single, longer division officer tour on Tracks 1 or 3 to have more time in the OCW. Or, for OCS officers who would prefer the two distinct tours, choosing to start a family early and waiting to enter OCS at age 29 will then maximize the time in the OCW at four years, prior to program entry.

The final option to maximize years in the OCW for NROTC/USNA and OCS officers is at two years. This option is risky when considering gestational time and the one-year operational deferment postpartum, without disrupting the SWO career. For these

officers, Track 4 with two distinct division officer tours maximizes at two-years in the OCW. This only occurs for NROTC/USNA officers who enter the program at ages 19–21 and for OCS officers who enter the program at ages 22 to 25.

### 3. Opportunities in the Optimum Childbearing Window

The SWO career paths and accession sources are compared in four opportunity categories: 2.5 CBY or greater in the OCW, exactly two CBY in the OCW, less than two CBY in the OCW and zero CBY in the OCW as shown in Table 3. Based on the age at which a female SWO enters each program and chooses a path, this table depicts how many opportunities she has to conceive in the OCW without disrupting her SWO career. At the bottom, the table also summarizes the total number of opportunities each accession source offers overall, regardless of career path.

Table 3. Summary of Maximum and Minimum Childbearing Year (CBY)  
Opportunities in the Optimum Childbearing Window

SWO Career Path	DIVO Tours	Commissioning Source	# of Opportunities with 2.5 or more CBY in OCW	# of Opportunities with exactly 2 CBY in OCW	# of Opportunities with less than 2 CBY and greater than 0 CBY in OCW	# of Opportunities with 0 CBY in OCW
Track 1 - Traditional	Two Distinct DIVO Tours	NROTC/USNA	2	1	1	3
		OCS	5*	2	3	1
		STA-21	1	2	2	1
	One Single DIVO Tour	NROTC	3	1	1	2
		OCS	6*	2	3	0
		STA-21	2	2	2	0
Track 2 - Accelerated Warfighter	One Single DIVO Tour	NROTC/USNA	3	0	2	2
		OCS	5*	3	2	1
		STA-21	2	1	3	0
Track 3 - Enhanced Readiness	Two Distinct DIVO Tours	NROTC/USNA	2	1	1	3
		OCS	5*	2	3	1
		STA-21	1	2	2	1
	One Single DIVO Tour	NROTC/USNA	3	1	1	2
		OCS	6*	2	3	0
		STA-21	2	2	2	0
Track 4 - Skillset Development	Two Distinct DIVO Tours	NROTC/USNA	0	3	4	0
		OCS	2*	5	2	2
		STA-21	3	3	0	0
	One Single DIVO Tour	NROTC/USNA	3	1	1	2
		OCS	6*	2	3	0
		STA-21	2	2	2	0
TOTAL		NROTC/USNA	24		25	
		OCS	53**		24	
		STA-21	27***		15	

\* 2 of total opportunities are before entering Navy

\*\* 14 of total opportunities are before entering Navy

\*\*\* 9 of total opportunities are while earning a bachelor's degree

Although two CBY in the OCW is sufficient, ideally a female SWO will have 2.5 CBY or more to start a family without affecting her career. For comparison, across all career paths, based on age, NROTC/USNA officers have 16 opportunities with 2.5 CBY or more in the OCW. Additionally, there are eight opportunities for NROTC/USNA officers with exactly the minimum of two years in the OCW for a total of 24 opportunities with two CBY or more in the OCW. In contrast, NROTC/USNA officers also have 25 opportunities with less than two CBY in the OCW and, in some cases, zero CBY in the OCW.

OCS officers have the most opportunities in the OCW due to the 19 to 29-year age-range for program entry. Overall, there are 53 opportunities with two or more CBY in the OCW for OCS officers; 14 of these opportunities are prior to entry into the Navy. Considering only opportunities after entering naval service, OCS officers have 39 total opportunities with two or more CBY in the OCW and 24 opportunities with less than two CBY in the OCW without affecting their SWO careers. In contrast, STA-21 officers have 27 opportunities with two or more years in the OCW; nine of these opportunities are during shore duty while earning a bachelor's degree. Additionally, STA-21 officers have 15 opportunities with less than two CBY in the OCW.

In summary, OCS officers have the most CBY opportunities in the OCW followed by STA-21 officers and then NROTC/USNA officers. NROTC/USNA officers are slightly disadvantaged as they are the only programs that the number of opportunities with less than two CBY in the OCW is greater than the number of opportunities with two or more CBY in the OCW. This is significant because 64% of SWOs access through NROTC or USNA programs and the timing of CBY in the OCW could influence the level of commitment to the military versus starting a family.

#### **4. Exit Points**

In general, officers can honorably exit the SWO community permanently or temporarily through separation, lateral transfer, or the Career Intermission Program (CIP). Due to the lateral transfer option requiring an application, record review process, acceptance and varying by individual timing and community quotas, it is outside the

scope of this study. Instead, this study plots the initial SWO exit point and the CIP options on the career path timelines to compare how career path exit points influence female SWO retention.

Each accession source requires a minimum military commitment upon commissioning. The age that an officer reaches the minimum military commitment and can exit, provided she began the program at her earliest opportunity is summarized in Table 4. Based on the accession source, many of these exit points occur along the career path during the OCW and present the “perfect” permanent exit opportunity for female SWOs who want to have children.

Table 4. Exit Point Summary by Career Path, Accession Source and Age

SWO Career Path	DIVO Tours	Commissioning Source	Age at 1st Exit Opportunity	1st Exit On Sea Duty?	1st Exit On Shore Duty?	Age at Shore Completion
Track 1 - Traditional	Two Distinct DIVO Tours	NROTC/USNA	26	N	Y	28.5
		OCS	23.5	Y	N	27
		STA-21	28	N	Y	30.5
	One Single DIVO Tour	NROTC	26	N	Y	28.5
		OCS	23.5	N	Y	27
		STA-21	28	N	Y	30.5
Track 2 - Accelerated Warfighter	One Single DIVO Tour	NROTC/USNA	26	N	Y	28.5
		OCS	23.5	N	Y	27
		STA-21	28	N	Y	30.5
Track 3 - Enhanced Readiness	Two Distinct DIVO Tours	NROTC/USNA	26	N	Y	28.5
		OCS	23.5	Y	N	27
		STA-21	28	N	Y	30.5
	One Single DIVO Tour	NROTC/USNA	26	N	Y	28.5
		OCS	23.5	N	Y	27
		STA-21	28	N	Y	30.5
Track 4 - Skillset Development	Two Distinct DIVO Tours	NROTC/USNA	26	Y	*N	25.5
		OCS	23.5	N	Y	24
		STA-21	28	Y	*N	27.5
	One Single DIVO Tour	NROTC/USNA	26	N	Y	28.5
		OCS	23.5	N	Y	27
		STA-21	28	N	Y	30.5

\* Occurs at the beginning of second Divo sea tour

For example, officers who enter NROTC/USNA at age 17 can exit at age 26 (within the OCW), OCS officers who enter at age 19 can exit at age 23.5 (within the OCW), and STA-21 officers who enter at age 20 can exit at age 28 (outside the OCW).



Table 4 also displays columns to indicate whether the first exit opportunity occurs during a sea or shore tour. Notice, most of these exit opportunities occur during shore duty, giving female SWOs the opportunity to complete their Division Officer tours and then choose to complete a shore tour before separating or separate as soon as they reach the first exit point.

An alternate, temporary, exit opportunity is through the Career Intermission Program (CIP) where qualifying officers can take a one to three-year sabbatical to take care of personal or professional goals. This program requires a two-month commitment for every one-month in the program (Black, 2015; Cooper, 2015). The researcher developed Table 5 to summarize the options available when considering the CIP combined with the SWO career paths. Based on accession source and SWO career path, Table 5 displays:

- The age at which CIP is offered
- Whether the officer will exit the career path before, during, or after her shore tour
- How many years of commissioned service (YCS) she has at the time CIP is offered
- The maximum combined shore tour and CIP time (i.e. “break” from sea duty)
- The age she will be when resuming her Naval career, assuming the officer takes the entire three-year CIP period
- The earliest age she meets the CIP obligation, considering the other variables
- The total Years of Commissioned Service (YCS) she will have upon meeting the CIP obligation

Table 5. Career Intermission Program (CIP) Summary Table

SWO Career Path	DIVO Tours	Commissioning Source	Age at CIP Exit Opportunity	CIP Exit (B)efore, (D)uring or (A)fter Shore Tour?	YCS at CIP	Max Years Shore with CIP	Latest Age at Navy Return	Youngest Age at Payback	YCS at Payback
Track 1 - Traditional	Two Distinct DIVO Tours	NROTC/USNA	26.5	D	4	5.5	29.5	35.5	10
		OCS	25	D	4	5.5	28	34	10
		STA-21	28.5	D	4	5.5	31.5	37.5	10
	One Single DIVO Tour	NROTC	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		OCS	N/A	N/A	N/A	N/A	N/A	N/A	N/A
		STA-21	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Track 2 - Accelerated Warfighter	One Single DIVO Tour	NROTC/USNA	28.5	A	7.5	6	31.5	37.5	13.5
		OCS	27	A	7.5	6	30	36	13.5
		STA-21	30.5	A	7.5	6	33.5	39.5	13.5
Track 3 - Enhanced Readiness	Two Distinct DIVO Tours	NROTC/USNA	28.5	A	7.5	5.5	31.5	37.5	13.5
		OCS	27	A	7.5	5.5	30	36	13.5
		STA-21	30.5	A	7.5	5.5	33.5	39.5	13.5
	One Single DIVO Tour	NROTC/USNA	28.5	A	7.5	6.5	31.5	37.5	13.5
		OCS	27	A	7.5	6.5	30	36	13.5
		STA-21	30.5	A	7.5	6.5	33.5	39.5	13.5
Track 4 - Skillset Development	Two Distinct DIVO Tours	NROTC/USNA	26	A	5	3	29	35	11
		OCS	24.5	A	5	3	27.5	33.5	11
		STA-21	28	A	5	3	31	37	11
	One Single DIVO Tour	NROTC/USNA	25	B	4	6.5	28	34	10
		OCS	23.5	B	4	6.5	26.5	32.5	10
		STA-21	27	B	4	6.5	30	36	10

Unlike the age at first exit point opportunity, which varies based on accession source, the age an officer is eligible for the CIP varies based on the career path. For instance, an officer pursuing the traditional path, with two distinct division officer tours will be able to apply for the CIP at age 26.5 (in the OCW) and only has four YCS at CIP. She could return to the Navy at age 29.5 and incur obligated service (OBLISERV) until age 35. This would allow her to have up to 5.5 years on shore (shore tour and CIP combined), and ultimately have 10 years of commissioned service (YCS) when reaching the end of her commitment.

For comparison, if choosing the accelerated warfighter path, the same officer would be age 28.5 (in the OCW) and have 7.5 YCS at CIP. She could return to the Navy as late as age 31.5 and incur OBLISERV to age 37.5 and have 13.5 YCS at the end of her commitment. This would allow her to have up to six years on shore. Although six years on shore sounds encouraging to female SWOs who want to start a family, it may not be feasible considering the current program parameters. Of note, if given the maximum

allowed time in CIP, all career tracks will have at least 10 years of commissioned service (YCS), which may be what actually influences retention, not the CIP itself.

When the accelerated warfighter begins CIP, she has already completed 7.5 years of commissioned service and, most recently, three years of shore duty. This officer then leaves the military on Inactive Ready Reserve (IRR) time and does not return to the fleet until up to six years of shore time has passed. At this point, she returns to the SWO community, attends Department Head School and a follow-on sea duty assignment after separation from the surface fleet for six years. Although policymakers introduced CIP to enhance retention and provide flexibility in career paths, it may require refining for the female SWO community.

## **5. Bailey's (2007) framework**

Considering the timing of the SWO career path, optimum childbearing window (OCW) and exit points, the researcher addresses the psychological element of retention decisions by estimating how the SWO career path aligns with Bailey's (2007) Proposed Developmental Framework for Female Military Personnel. Incorporating Bailey's (2007) identity continuum to the SWO timelines revealed that at the initial exit opportunity, female NROTC, USNA and OCS graduates are between the Masculinization/Militarization stage and the Synthesis stage. These three accession sources combined account for 90% of SWOs who, if not committed to the military and reaching the Synthesis stage, will leave at the initial exit point. Conversely, STA-21 officers account for only 5% of the SWO population but, due to their accession timeline, female STA-21 SWOs have inevitably entered the Synthesis stage and will have a minimum of 10 years of service already committed to the Navy at the first exit point opportunity. At their initial exit point, these officers are halfway invested in retirement; so, the greater concern for policymakers regarding female STA-21 SWOs should be the opportunity to exit via the lateral transfer process.

## **D. LIMITATIONS**

Throughout the study, the researcher encountered four limitations. The first limitation concerned economic fluctuations that influence future trends. Data from

previous studies often pre-dates the 1994 Combat Exclusion Act where women were not allowed to serve in many military roles. Since the repeal, the military's overall culture of acceptance of women has changed as well as society's acceptance of women serving in military roles. Because of this, the population of military women has increased which results in a greater variance of data that derived previous conclusions. As retention decisions are dynamic and can change with the economy, conclusions made from prior studies may not be applicable in today's society; consequently, conclusions made today may not be applicable in the future.

The second limitation concerned the ability to obtain specific demographic data for female SWOs. Each of the five theses queried had various qualitative and quantitative data that helped derive the questions for this thesis. When obtaining specific data for the SWO community, the researcher requested additional demographic data specific to female SWOs such as marital status, accession source, age at accession, and age at conception or childbirth from the Office of Women's Policy and the Surface Warfare Community Manager but none were available.

The third limitation concerned estimations made for the SWO career paths for ease of interpretation and continuity. Due to the dynamic nature of SWO career entry and progression, the researcher generalized the SWO continuum into six-month increments to align with the published SWO career tracks. This allowed for estimation of career path timing and a cleaner output for career path comparisons.

The final limitation concerns this study only addressing the conventional SWO career tracks up to the 11 YCS point where the path continues to the XO and CO tracks. As the career paths split later in the SWO career, if a female SWO chooses to stay to become a XO or CO, it is likely she has committed to being a SWO until retirement. Therefore, the XO, CO and nuclear tracks are not within the scope of this analysis.

## **E. CHAPTER SUMMARY**

This chapter presents the four SWO career path timelines separated by age and accession source. Then, using the 2015 U.S. Department of Health and Human Services report data and the U.S. Navy's biennial Pregnancy and Parenthood Survey, adds the

optimal childbearing window (OCW) to illustrate how pregnancy timing would align between ages 25–30 on each SWO career path. Each diagram also displays two key exit point opportunities: fulfillment of the initial military commitment and the Career Intermission Program (CIP) eligibility point. Then, the researcher introduces Bailey's (2007) frameworks to display the proposed identity stages women encounter throughout a military career. Adding Bailey's frameworks highlights the psychological conflict female SWOs face between family-related factors and the level of commitment to the organization when making retention decisions. The chapter concludes with findings and limitations of the thesis.

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## **V. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **A. SUMMARY**

This study uses a qualitative research approach through exploratory methods to examine female SWO retention to explore how age, accession source, childbearing, and career path influence female SWO retention simultaneously. This study layers age, accession source, and “optimum childbearing window” (OCW) onto the SWO career paths, presenting the window of opportunity a female SWO has to balance her career and children. Bailey’s (2007) female military identity frameworks addressed the additional psychological considerations when making retention decisions around career-path exit points.

Using prior studies concluding that family-related factors are the greatest contributor to female SWO retention, the researcher developed the theoretical framework, research questions and summary tables that focus on the timing of the SWO career paths (Guest, 2002). The goal was to explore how age, accession source, childbearing and the SWO career paths align on a continuum. These charted career paths and summary tables show policymakers the barriers faced by women given the variables of age, accession source and four SWO career path options against the OCW. Given these career timelines, female SWOs can identify childbearing opportunities with a career path, within six-months, based on accession source and accession age.

The research found that currently the SWO career paths allow for a maximum of four childbearing years (CBY) in the OCW but only for OCS graduates who choose to have children prior to joining the Navy. From there, depending upon commissioning source and career track, women may have anywhere from zero to 3.5 CBY in the OCW, with three years in the OCW as most common, among all accession sources and career paths. This is important because when considering a 40-week gestation and one-year operational deferment, women require a minimum of 22 months for pregnancy and childbirth. The current structure of the SWO career paths supports one pregnancy during

a shore rotation; it is unlikely female SWOs can have multiple children without affecting their careers and causing them to exit the community or Navy.

Finally, to understand the psychological conflict when choosing between family factors and a SWO career, the researcher considers Bailey's (2007) Proposed Developmental Framework for Female Military Personnel to coincide with accession source timelines. The researcher estimates that at the first exit opportunity, NROTC and USNA graduates are between the Masculinization/Militarization and Synthesis stages whereas, STA-21 officers are well into the Synthesis stage, having already served a minimum of 10 years in the Navy. The difference in psychological and career progression is significant because it is more likely that a STA-21 SWO will stay, even if she has already started a family because of anticipated retirement benefits and her career investment.

## **B. CONCLUSIONS AND RECOMMENDATIONS**

### **1. Research Question: How Does the SWO Career Path Align with the Five-Year "Optimum Childbearing Window" (OCW) During Ages 25 to 30?**

#### ***a. Conclusion***

The first conclusion is that age is an important factor in retention decisions. Based on the U.S. Department of Health and Human Services report and the biennial U.S. Navy Pregnancy and Parenthood Survey, a majority of women are having children between the ages of 25 to 30. This could influence female SWO family timing considerations and alignment with her career path if she chooses to have children at a later age. Having a clear understanding of the age female SWOs plan on having children will guide policymakers to account for timing of pregnancy and family planning and ultimately better predict retention intentions. Overall, the greatest number of opportunities in the OCW is for OCS officers; many of the opportunities occur before the officer enters the Navy. Conversely, NROTC/USNA officers have the fewest opportunities of childbearing years in the OCW. Policy makers will continue to see low female retention numbers unless the timing of career promotion and milestones in the SWO career path takes family factors and the CBY into account.



***b. Recommendation***

The Chief of Naval Personnel and PERS-41 should reevaluate the rigidity of the SWO career paths and Department Head milestones. Through plotting the career paths on age and accession source timelines, the researcher noticed that the current career paths allow for minimal fluctuations, particularly for women who intend to have children between ages 25 to 30 without affecting their SWO careers and the 7.5-year Department Head milestone. As pregnancy age rises, policymakers will have to consider the potential impact on female SWO career timing and retention decisions. Even with the additional career path options implemented in 2015, the SWO community expects officers to achieve the Department Head milestone at 7.5 years of commissioned service (YCS). Although the implications of adjusting the Department Head milestone requires further research into promotion timing and performance evaluation regulations, greater career flexibility during childbearing years could lead to increased female SWO retention because those who want to bear children do not have to exit the SWO community.

**2. Research Question: How Do the Career Path Exit Points Influence Female SWO Retention?**

***a. Conclusion***

Two exit points along the SWO career path can influence female SWO retention. The first exit point opportunity for 90% of SWOs in NROTC, USNA and OCS programs occurs during the initial shore assignment, around five years of commissioned service (YCS). Conveniently, this tour is in the OCW and accommodates pregnancy timing without a follow-on sea tour, until near the end of the shore tour, which makes it ideal for separation.

The Career Intermission Program (CIP) offers a second exit point opportunity to mitigate the challenges for female SWOs who separate due to family related factors. The research found that female SWOs maximize CBY in the OCW at 6.5 years if they apply, are approved for CIP, and choose Track 4 with a single, longer DIVO tour. Without requirements to remain engaged of community changes while on CIP, this option introduces greater obstacles upon returning to the SWO community after 6.5 years on

shore duty. The length of separation from fleet experience and lack of military training during CIP may cause female SWOs to separate prior to applying for CIP because they know the expectations upon return. Not only does it cause concern for reintegration to the SWO community but also presents steep learning curves upon program completion. CIP participants should have a designator-specific required reading and training program to help reduce skill atrophy and maintain a connection with the community while participating in CIP.

***b. Recommendations***

To address retention after the first exit point, the Chief of Naval Personnel (CNP) and Navy Recruiting Command (NRC) must target recruiting efforts toward female SWOs who retain longer in the community within each accession source. These officers can focus on how the childbearing opportunities align on the new SWO career tracks based on the female SWO accession source mix. The CNP must also track female CIP SWO participants. Though CIP may appear to increase retention, the required OBLISERV may just postpone the permanent exit point to later in the career.

**3. Research Question: How Does the SWO Career Path Align with Bailey's (2007) Proposed Developmental Framework for Female Military Personnel?**

***a. Conclusion***

STA-21 females achieve Bailey's (2007) synthesis stage earlier in their officer careers. As family related factors are influential in female SWO retention, it is worth considering how exit points align with the OCW and Bailey's (2007) identity stages using Bailey's (2007) Proposed Developmental Model for Female Military Personnel. Once a female SWO achieves the Synthesis stage, Bailey suggests that she has achieved a balance between personal, civilian, feminine and military values. In this case, the STA-21 officer is less likely to separate from the military with the 10-year minimum time already invested. The other accession sources are outside the synthesis stage.

***b. Recommendations***

The research shows that a majority of female SWOs separate at the initial exit point, the Chief of Naval Personnel should adjust the accession source input. Rather than having the majority of officers commission through NROTC, USNA, or OCS channels, female SWO retention may require an increase of STA-21 commissioned officer quotas or an increase of NROTC, USNA or OCS quotas that target applicants who align with the maximum CBY in the OCW. The second recommendation is for the CNP to conduct further research into programs and policies that female SWOs value, increasing their level of commitment to the community. If CNP can increase the female level of commitment to the SWO community by offering incentives, other than money, in exchange for Department Head tours, retention numbers will follow.

**C. FURTHER RESEARCH**

The study uncovered a variety of important relevant areas that were beyond the scope of this research. The following areas of study are recommend for further research:

- Determine at what point on the career paths female SWOs separate based on age and accession source.
- Conduct detailed research into female SWO childbearing windows to allow for pregnancy timing during a SWO career.
- Consider trends in childbearing age to better target the female SWO population for retention.
- Continue to research childbearing age to see where the trends lie and if the age significantly differs from the general population.
- Conduct further research into promotion timing and performance evaluation regulations to see whether the SWO community can accommodate changes to allow female SWOs to be successful while having children during their SWO careers.
- Conduct further demographic research into which accession source a majority of female SWOs come from and at what ages and point in their careers that they enter and exit.
- Conduct deeper research into the longevity of female SWOs and instead of asking why female SWOs are leaving, find out which ones stay and why.

- Conduct a follow-on study by adjusting the accession source input through targeted recruiting efforts for female SWOs who retain longer in the SWO community. Then, follow the selected cohorts to see whether female retention increases over time.
- Conduct a detailed cost-benefit analysis for all stakeholders to determine whether female SWOs are using CIP to have children.
- Track female SWOs who participate in CIP to determine whether they stay after completing the obligated service or whether they complete the “payback” tour and then separate anyway.
- Conduct a follow on study/survey of female SWOs to answer targeted questions proposed in Appendix H.

#### **D. BENEFITS OF THIS STUDY**

Women are an integral part of the work force, providing unique perspectives, contributions and diversity in the workplace. The Navy also employs women in a variety of ways, but it struggles to keep them in the Surface Warfare community. Prior studies revealed that family related factors were a primary reason women chose to leave the SWO community. Each study concluded that age, accession source, or the SWO career path contributed to female SWO retention, but until now, no study has addressed these factors simultaneously. This study explores female SWO retention and combines factors of age, accession source, childbearing years, and the SWO career path by placing them on a continuum and over-lapping the “optimum childbearing window” (OCW). Then, the researcher introduces Bailey’s Proposed Developmental Framework for Female Military Personnel to show how the five identity stages align with exit points along the career paths.

This research uses literature from previous studies, theses and published SWO career path timelines to model the expected SWO career paths for each accession source by age. The study adds an Optimal Childbearing Window (OCW) to the timeline from ages 25–30 based on the 2015 U.S. Department of Health and Human Services report indicating the highest rate of pregnancy. The researcher then added the first exit point opportunity, based on initial contract fulfillment, and the Career Intermision Program (CIP) opportunity. The research is limited by the demographic data available for female

SWOs and is summarized into six-month increments for ease of timeline calculations and interpretation. Once the researcher compared all tracks to the traditional path, it was clear that regardless of the career path, the timing of exit points actually promotes separation for female SWOs who may value family over career. At a basic level, considering accession sources and the SWO career paths, planning for a pregnancy without disrupting the SWO career is challenging, particularly if the officer desires more than 1 year with her child or to have multiple children.

The benefits of this study are to provide decision makers with added insight to female SWO retention through an analysis of prior case studies, theses and the introduction of age, accession source, and the optimum childbearing window (OCW) into published SWO career paths. Additionally, Bailey's (2007) female military identity stages provide a unique perspective into how intrinsic, psychological elements and timing of exit points along the career path can influence female SWO retention. The information gained provides policymakers detailed timelines with considerations for age, accession source, the SWO career path and OCW when contemplating ways to increase female SWO retention.

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## APPENDIX A. SUPPLEMENTAL TRADITIONAL CAREER PATH FIGURES FOR FIGURES 21–23

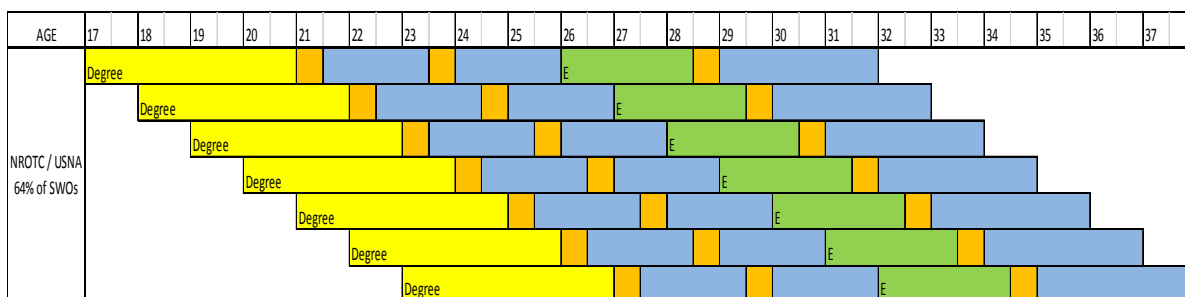


Figure 51. NROTC/USNA Traditional Career Path from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

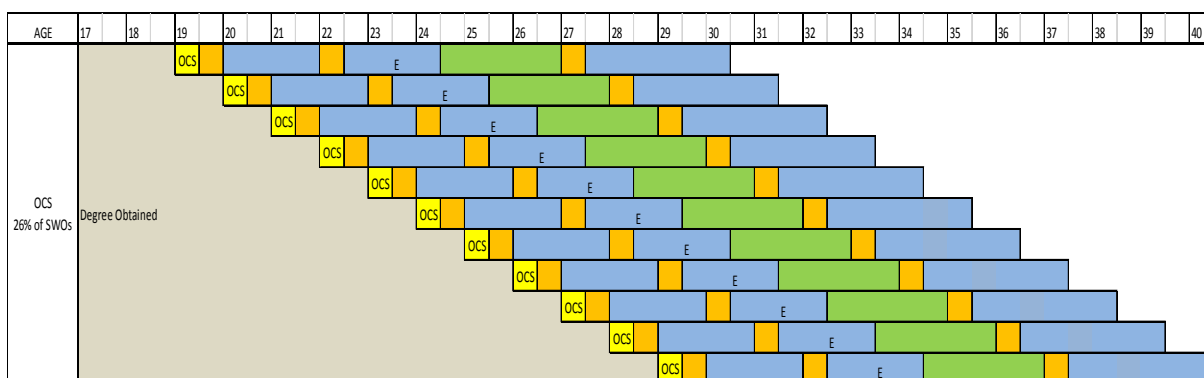


Figure 52. OCS Traditional Career Path—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

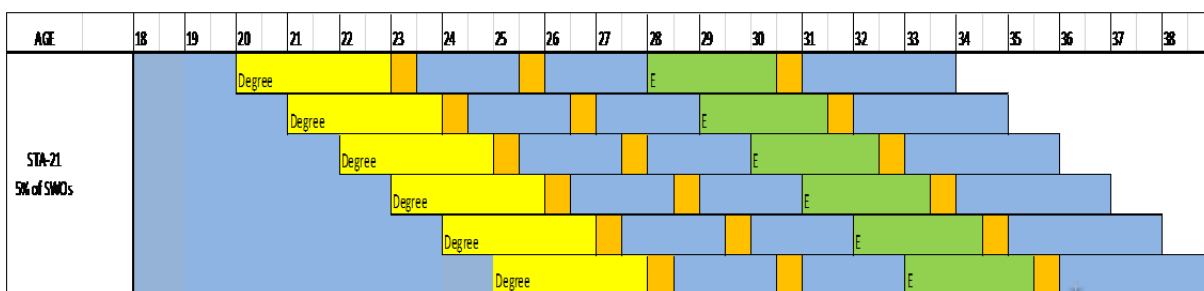


Figure 53. STA-21 Traditional Career Path—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

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## APPENDIX B. SUPPLEMENTAL TRADITIONAL CAREER PATH FIGURES WITH SINGLE-LONGER DIVO TOUR FOR FIGURES 25–27

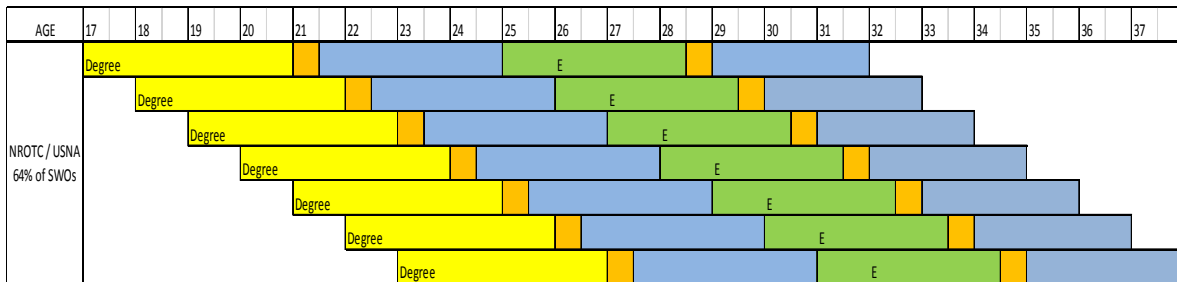


Figure 54. NROTC/USNA Traditional Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

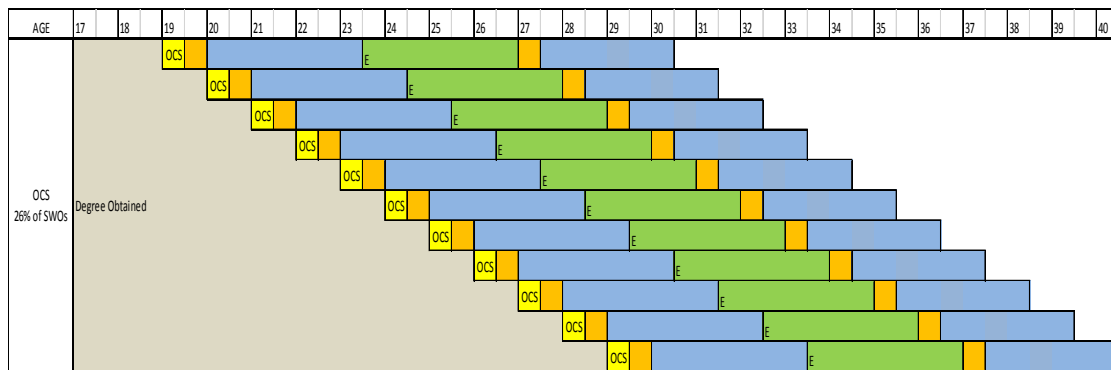


Figure 55. OCS Traditional Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

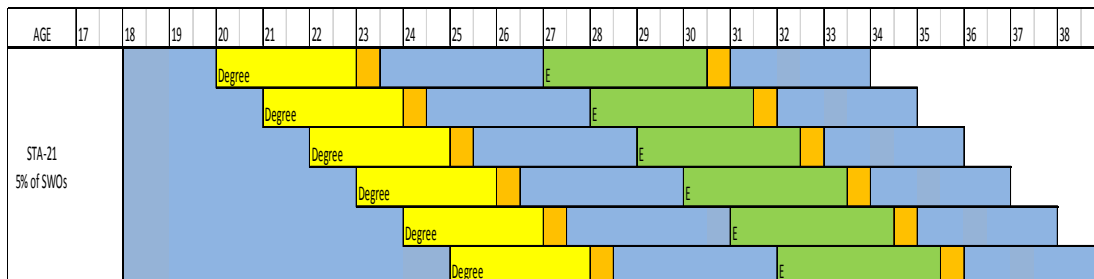


Figure 56. STA-21 Traditional Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

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## APPENDIX C. SUPPLEMENTAL ACCELERATED WARFIGHTER CAREER PATH WITH SINGLE LONGER DIVO TOUR FIGURES FOR FIGURES 29–31

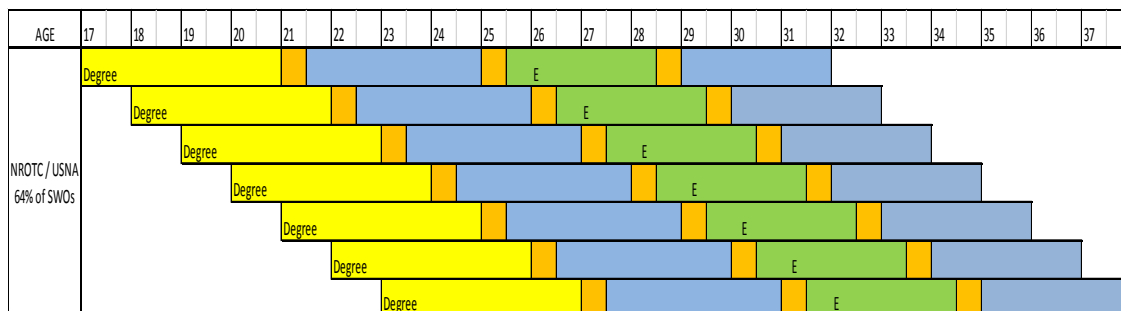


Figure 57. NROTC/USNA Accelerated Warfighter Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

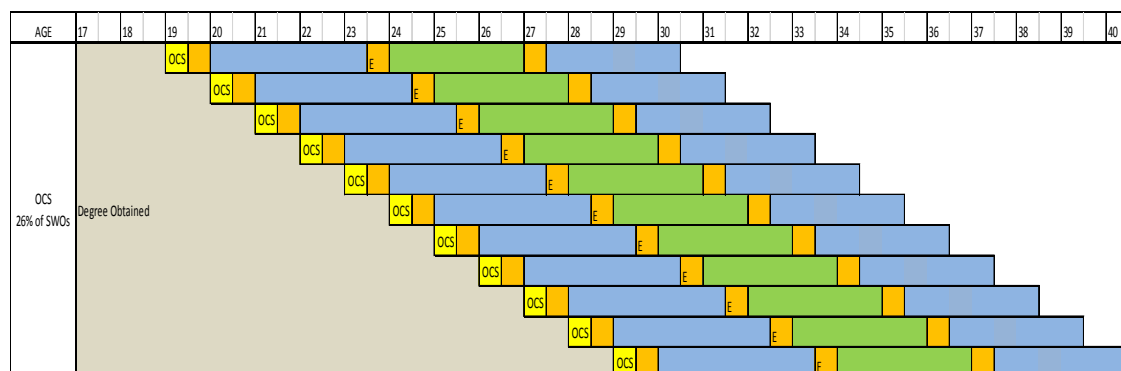


Figure 58. OCS Accelerated Warfighter Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

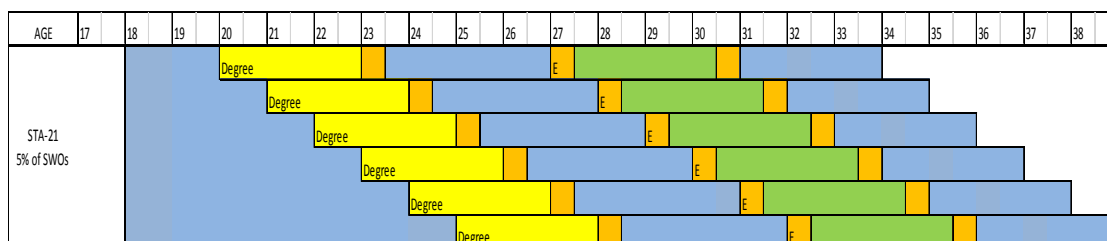


Figure 59. STA-21 Accelerated Warfighter Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

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## APPENDIX D. SUPPLEMENTAL ENHANCED READINESS CAREER PATH FIGURES FOR FIGURES 33–35

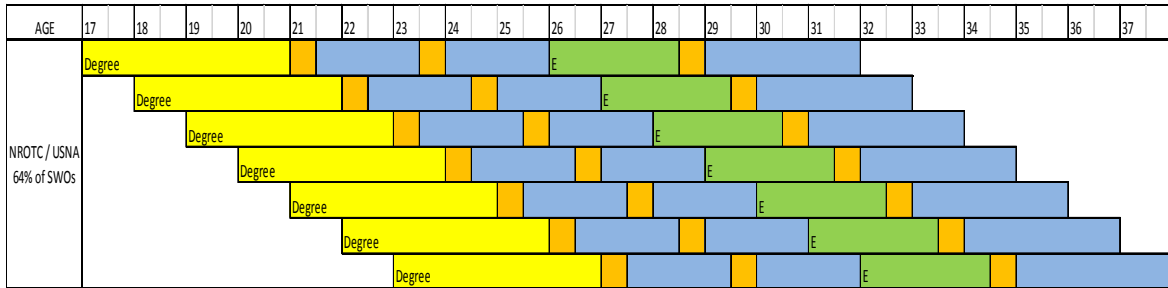


Figure 60. NROTC/USNA Enhanced Readiness Career Path—from Commissioning to 11 YCS Based on Age and Accession Source.  
Adapted from Cooper (2015).

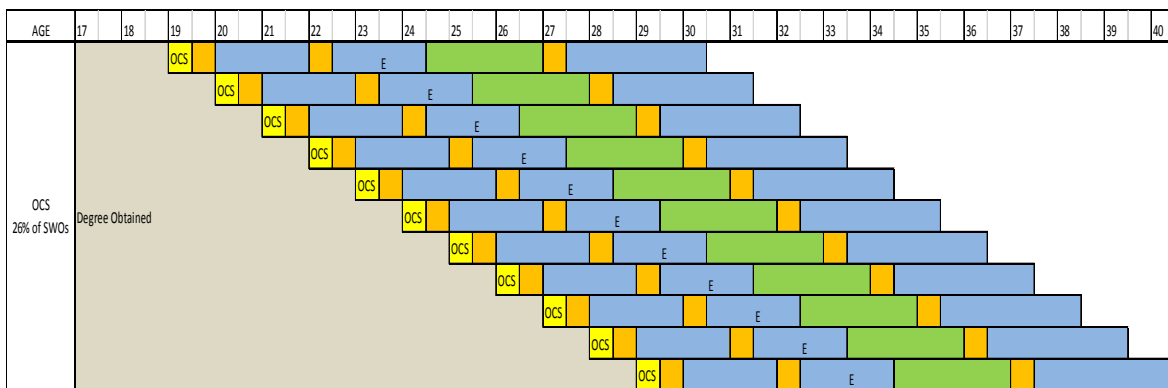


Figure 61. OCS Enhanced Readiness Career Path—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

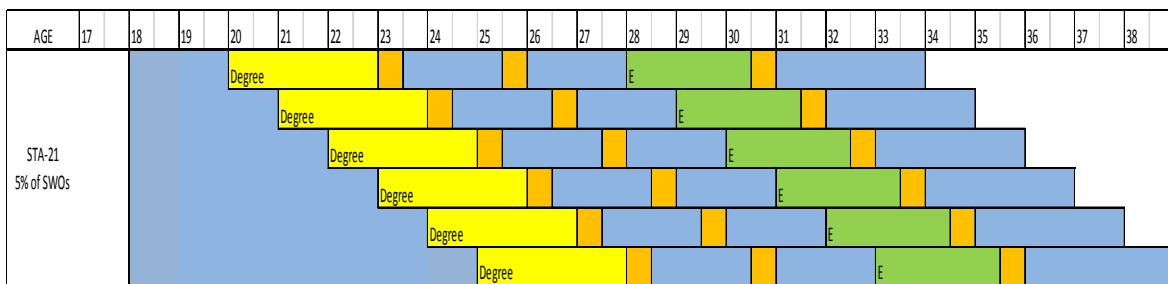


Figure 62. STA-21 Enhanced Readiness Career Path—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

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## APPENDIX E. SUPPLEMENTAL ENHANCED READINESS CAREER PATH WITH SINGLE LONGER DIVO TOUR FIGURES FOR FIGURES 37–39

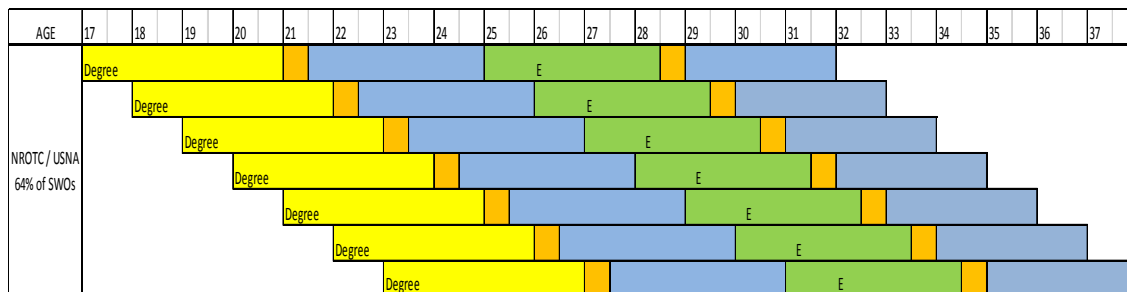


Figure 63. NROTC/USNA Enhanced Readiness Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

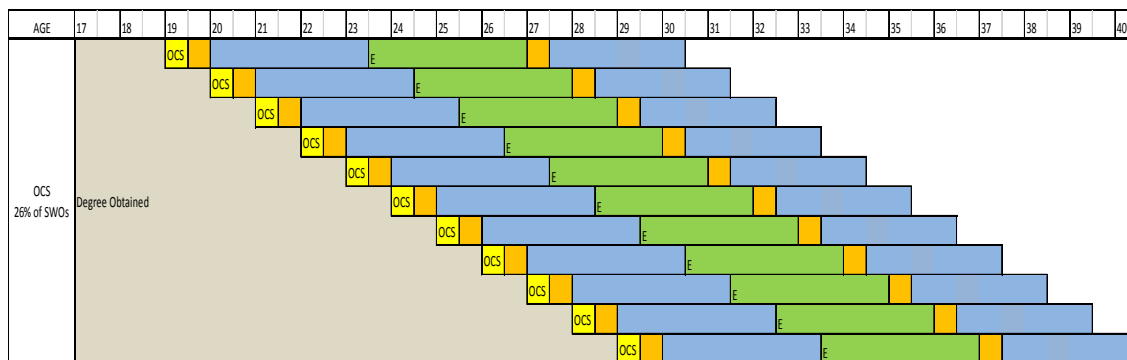


Figure 64. OCS Enhanced Readiness Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

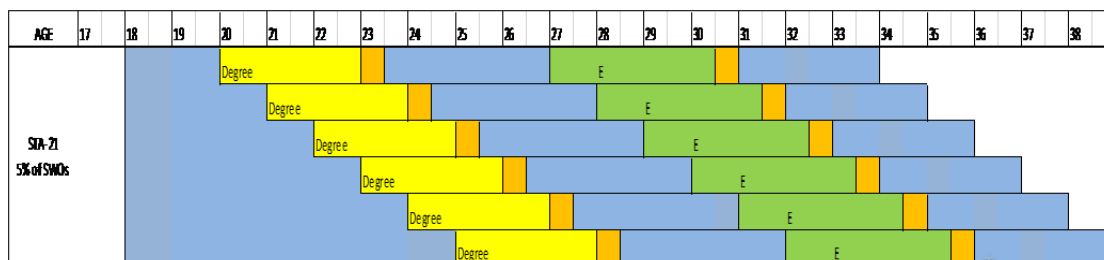


Figure 65. STA-21 Enhanced Readiness Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

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## APPENDIX F. SUPPLEMENTAL ACCELERATED SKILLSET DEVELOPMENT CAREER PATH FIGURES FOR FIGURES 41–43

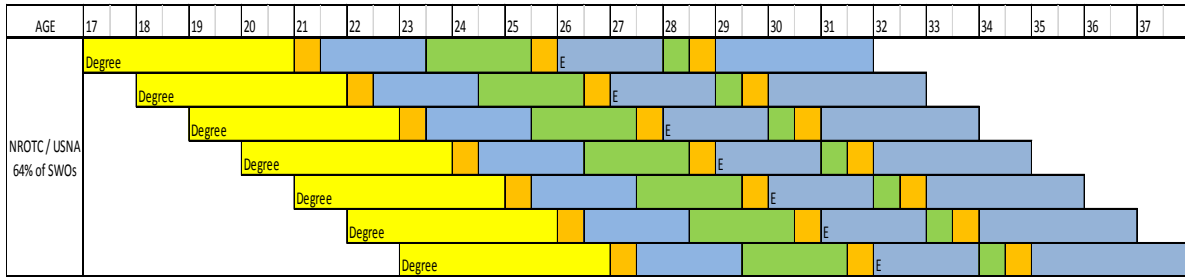


Figure 66. NROTC/USNA Accelerated Skillset Development Career Path—from Commissioning to 11 YCS Based on Age and Accession Source.  
Adapted from Cooper (2015).

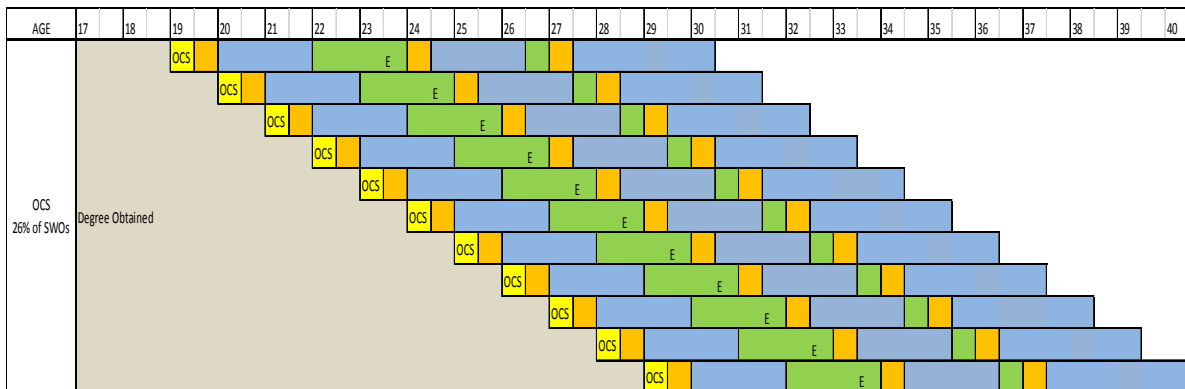


Figure 67. OCS Accelerated Skillset Development Career Path—from Commissioning to 11 YCS Based on Age and Accession Source.  
Adapted from Cooper (2015).



Figure 68. STA-21 Accelerated Skillset Development Career Path—from Commissioning to 11 YCS Based on Age and Accession Source.  
Adapted from Cooper (2015).

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## APPENDIX G. SUPPLEMENTAL ACCELERATED SKILLSET DEVELOPMENT WITH SINGLE LONGER DIVO TOUR CAREER PATH FIGURES FOR FIGURES 45–47

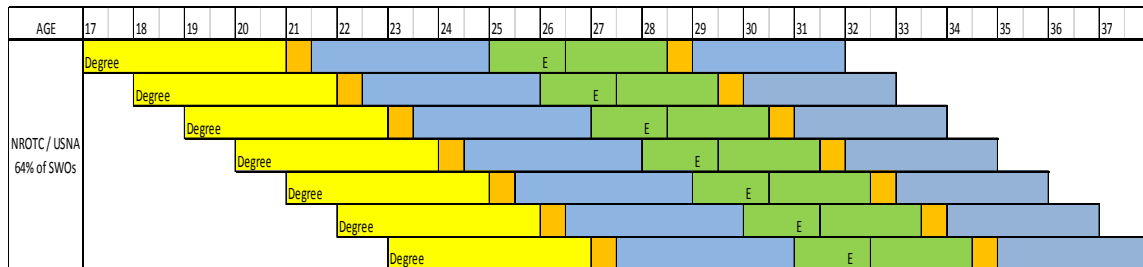


Figure 69. NROTC/USNA Accelerated Skillset Development Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

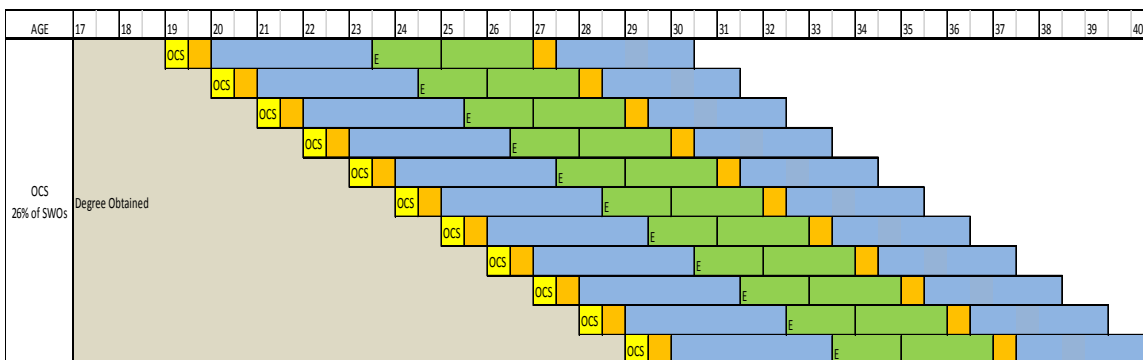


Figure 70. OCS Accelerated Skillset Development Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).



Figure 71. STA-21 Accelerated Skillset Development Career Path—Single Longer DIVO Tour—from Commissioning to 11 YCS Based on Age and Accession Source. Adapted from Cooper (2015).

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## **APPENDIX H: PROPOSED FOLLOW-ON TARGETED SURVEY QUESTIONS FOR FEMALE SWOS**

- 1. What is your accession source?**
- 2. Do you have prior military service (before commissioning), how many years?**
- 3. At what age did you enter the military (to nearest 6 months)?**
- 4. Do you plan to, or have you had children, during your SWO career?**
- 5. How old were you for birth of your child(ren) (to nearest 6 months)?**
- 6. How many years of military service did you have at birth of your child(ren)?**
- 7. Were you on sea duty when you found out that you were pregnant with your 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> child?**
- 8. How many years of service did you have when you knew you were going to exit the military (nearest 6 months)?**
- 9. At point in SWO career lateral transfer/age at transfer/family status: with children, pregnant, planning for children?**
- 10. How much time is acceptable to for women to leave for family and return to the SWO career path? At what age of your child are you comfortable returning?**

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