

**NAVAL POSTGRADUATE SCHOOL**  
**Monterey, California**



**THESIS**

**THE COST AND BENEFITS OF THE NAVY NURSE  
CORPS ACCESSION SOURCES**

by

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December 1999

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**20000306 036**

<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved OMB No. 0704-0188</i>	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE December 1999		3. REPORT TYPE AND DATES COVERED Master's Thesis
TITLE AND SUBTITLE : THE COST AND BENEFITS OF THE NAVY NURSE CORPS ACCESSION SOURCES				5. FUNDING NUMBERS
6. AUTHOR(S) Maeder, Tamara K.				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000				8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A				10. SPONSORING / MONITORING AGENCY REPORT NUMBER
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.				12b. DISTRIBUTION CODE
13. ABSTRACT (maximum 200 words) The study analyzes the various Navy Nurse Corps accession sources' costs and benefits. The study also uses a logistic regression to model "success." "Success" is defined as the ability to retain past initial obligation or the five-year point. Specific accession sources examined are the Naval Reserve Officer Training Corps (NROTC), Nurse Commissioning Program (NCP), Medical Enlisted Commissioning Program (MECP), direct procurement, and previous programs such as the Health services Commissioning Program (HSCP), Baccalaureate Degree Completion Program (BDCP), and Full-Time Out-Service Training (FTOST). Cohort files for FY 1992, 1993, and 1994 were developed from Navy Officer Master Files maintained at the Defense Manpower Data Center (DMDC), and the Naval Medical Information Management Center's (NMIMC) Bureau of Medical Information System (BUMIS) database. The findings indicate that both males and individuals that entered the NC through the MECP were more likely to retain. The NROTC program costs \$86,000, the most expensive source, and has the lowest retention rate, 47.1 percent. The MECP costs \$74,781 and has the best retention rate, 90.2 percent. The NCP costs \$30,045 and has a 61.2 percent retention rate.				
14. SUBJECT TERMS Manpower Supply, Retention, Recruiting, Accession Sources, Nursing				15. NUMBER OF PAGES 71
				16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified		18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified		19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified
				20. LIMITATION OF ABSTRACT UL

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)  
Prescribed by ANSI Std. Z39-18



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**THE COST AND BENEFITS OF THE NAVY NURSE  
CORPS ACCESSION SOURCES**

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Submitted in partial fulfillment of the  
requirements for the degree of

**MASTER OF SCIENCE IN MANAGEMENT**

from the

**NAVAL POSTGRADUATE SCHOOL  
December 1999**

Author:

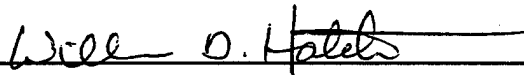


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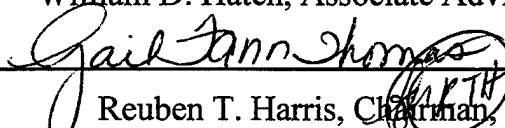
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## ABSTRACT

The study analyzes the various Navy Nurse Corps accession sources' costs and benefits. The study also uses a logistic regression to model "success." "Success" is defined as the ability to retain past initial obligation or the five-year point. Specific accession sources examined are the Naval Reserve Officer Training Corps (NROTC), Nurse Commissioning Program (NCP), Medical Enlisted Commissioning Program (MECP), direct procurement, and previous programs such as the Health services Commissioning Program (HSCP), Baccalaureate Degree Completion Program (BDCP), and Full-Time Out-Service Training (FTOST). Cohort files for FY 1992, 1993, and 1994 were developed from Navy Officer Master Files maintained at the Defense Manpower Data Center (DMDC), and the Naval Medical Information Management Center's (NMIMC) Bureau of Medical Information System (BUMIS) database. The findings indicate that both males and individuals that entered the NC through the MECP were more likely to retain. The NROTC program costs \$86,000, the most expensive source, and has the lowest retention rate, 47.1 percent. The MECP costs \$74,781 and has the best retention rate, 90.2 percent. The NCP costs \$30,045 and has a 61.2 percent retention rate.



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## ACKNOWLEDGEMENT

I wish to extend my appreciation to the many individuals who contributed to this study. In particular, the assistance of Dennis Mar and Kathy Kocher both of the Naval Postgraduate School, in obtaining, merging, and processing the data. I would like to acknowledge those individuals who provided their support throughout the information gathering phase of this thesis particularly Senior Chief David Reed of the Defense Manpower Data Center (DMDC), Judy Willis of the Naval Post Graduate School, CDR Rebecca Powers, and CDR Paula Jonak. I would like to also recognize the efforts of Dr. William Gates and CDR William Hatch of the Naval Postgraduate School. Last, I would like to thank my husband, Kreg and our three children Krystle, Luke and Lindsey for their understanding and patience during this entire process.





## I. INTRODUCTION

### A. BACKGROUND

Following a decade of budgetary cuts and "rightsizing" within the entire military, the Navy Nurse Corps (NC) changed its accession programs. In March 1998, a thesis entitled "An Analysis of the Effects of Accession Source as A Predictor of Success of Navy Nurse Corps officers" was completed (Jonak & Paradis). That study examined changes in the various avenues for entering the NC. The study focused on NC officers who entered the Navy in fiscal years (FY) 1983, 1987, and 1990. The thesis examined whether accession source and other identifying explanatory variables were consistent among NC officers classified as "successful." This information could then be used to predict successful NC Officers. "Success" was defined as those officers who completed and were retained beyond their initial obligation, and were promoted to Lieutenant Commander (LCDR). The study's objective was to produce a model that could help the NC community manager make effective policy and planning decisions.

This follow-on study will analyze the feasibility of using accession sources to predict military career behavior, and examine the cost and benefits of these sources. However, this study will define "success" differently and will analyze the "cost" for different entry sources. For the purpose of this study, "success" is

defined as "those individuals who continue on active duty past the initial obligation."

## **B. PURPOSE**

This research compares different accession sources of the NC and examines if there is a significant difference in the military career behaviors of individuals entering the NC among these accession sources. The results are used to develop accession policy, time allocation and budgeting for NC recruitment.

## **C. SCOPE AND METHODOLOGY**

The scope of this study will compare the different accession sources entering the NC in FY 1992, 1993, and 1994. These accession sources include the Naval Reserve Officer Training Corps (NROTC), Nurse Commissioning Program (NCP), Baccalaureate Degree Completion Program (BDCP), Health Service Commissioning Program (HSCP), Medical Enlisted Commissioning Program (MECP), full-time Out-Service Training (FTOST), and Direct. These various accession sources will be analyzed for their ability to predict "success." For the purpose of this research, "Success" is defined: as completing and continuing past initial obligated service. This model will not predict or attempt to predict individuals who successfully promote or continue service until eligible for military retirement.

The study incorporates multivariate regression modeling techniques and statistical analysis. These statistical frequencies and multivariate regression analysis will help compare the “success” rate of individuals entering through different accession sources.

#### **D. ORGANIZATION OF STUDY**

Chapter II discusses the nursing labor market, external challenges and present considerations in recruiting and retaining nurses. This chapter also discusses past attrition and promotion behaviors. Chapter III provides background and cost analysis of the various NC accession sources. Chapter IV discusses the data set and its components regarding the research methodology and multivariate regression analysis. Chapter V explains the statistical analysis results. Chapter VI offers the conclusions and recommendations for this study.

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## II. LITERATURE REVIEW

### A. BACKGROUND

For some time, the Navy has had problems in recruiting and retaining service members. The NC reportedly is not experiencing the same phenomena. According to a recent report, the NC was 30 nurses short of meeting endstrength goals at the end of FY 1999 (Perspective," September-October, 1999). A shortfall of 30 nurses equates to one percent below endstrength goal. The NC community manager is examining the adequacy of future manpower. A recent article indicates that the Registered Nurses (RN) labor market may soon experience a shortage (Glen, 1999). Historically, the nurse labor market has had shortages. These shortages result from both increases in demand for RNs, and decreases in the RN supply. Shortages are a real concern because nursing shortages threaten the quality of patient care (Shigley, 1988; Turner, 1990; Kocher & Thomas, 1988).

The increase in demand is attributed to several factors. First, the AIDs epidemic has increased the patient care load. Second, attempts to contain healthcare costs have increased the demand for RNs. Nurses are considered a healthcare bargain because their real wage is low relative to physicians and other healthcare professionals. Nurses can be trained to do jobs and perform tasks done traditionally by other healthcare professionals. Third, higher acuity rate patients

are now sent to the wards and lower acuity patients are discharged (Barbee & Samuelson, 1993; Kocher & Thomas, 1988). Even though the number of patients assigned to one nurse has decreased, these higher acuity patients require more intensive and specialized care.

While demand for RNs has been increasing, the supply has been decreasing. Historically, nurses tended to drop out of the labor market to pursue homemaking and motherhood. Today, the nursing field competes in the labor market with other professions that offer better pay and benefits (Barbee & Samuelson, 1993).

Historically, recession in our nation's economy has affected the supply of RNs. When a recession occurs, the vacancy rate of RN positions declines. During prosperous economic periods, RN vacancies rise as nurses choose to increase their leisure time and pursue these other roles. When recession adversely affects a spouse's income, a RN will choose to return to the labor market (Buerhaus 1994).

## **B. ATTRITION, RETENTION, AND PROMOTION THEORIES**

Whenever personnel shortages became a concern, management responds by emphasizing recruiting and retention. Traditional turnover theories hold that before individuals decide to quit their positions, they examine job satisfaction, alternative employment opportunities, and estimate a subjective expected utility. Job satisfaction occurs when a nurse's expectations are matched with the employing 'institutions' goals (Lee, Mitchell, Wise, and Fireman, 1996).

## 1. Pay

Pay is one aspect of job satisfaction. Edward Schumacher conducted a longitudinal study of RNs and their sensitivity to real wages from 1983 through 1994. He hypothesized that RN jobs require a high degree of occupation-specific training, therefore RNs should be less mobile between occupations than secretaries. Furthermore, trained RNs are less sensitive to outside wages. Schumacher ran three regression models. The first consisted of those RNs who had stayed within the nurse labor market. The second involved those who had switched to a different occupation. The third featured those who had left the labor market. He examined each group's years of experience, education, marital status, age, number of children, and real wage. He also attempted to measure quality by predicting a nurse's wage from the coefficients of the regression and then comparing it to the actual wage. Schumacher reasoned that an overpaid nurse was probably of higher quality than an underpaid nurse. The last comparisons he made were between nurses and secretaries who left the labor market or switched occupations. He concluded that relative wage had little significant impact on the decision to switch occupations, and even less impact on the probability of leaving the labor market (1997).

In 1988, a study on factors influencing NC Officer retention concluded that pay was not a significant factor in a NC Officer's decision to leave military



service. The author believed, however, that satisfaction with pay was possibly captured in the satisfaction with promotion and/or freedom variables, which were significant (Shigley, 1988).

In Turner's 1990 study, pay did have a positive affect on a NC officer's decision to stay in the military. Turner's findings were not consistent with past research, which found quality of the work environment to be more important and significant. She attempted to explain this pay finding as a reflection of the significance promotion holds for NC Officers. Turner (1990) reported that pay scales around the United States were beginning to rise and opportunities were opening for nurses to receive better pay. These facts could have influenced the survey responses.

## **2. Promotion**

Since promotion equates to an increase in pay and status, promotion is another factor affecting a NC officer's career plans. In 1989, Karen Doyle examined the Defense Officer Personnel Management Act of 1981, (DOPMA) and the effect of this legislation on promotion. It has been theorized that Navy promotion problems come from DOPMA. DOPMA gives Congress considerable control over grades O-4 through O-6. It controls the number of nurses promoted and requires those who Fail to Select (FOS) to leave the NC. This created a "choke point" that hindered the NC from meeting targeted requirements. Since

1989, the NC has successfully presented their case to Congress and received DOPMA relief. It is unknown how this change has effected satisfaction with promotion. It is also unknown if the length of time a Navy nurse is on active duty increases the likelihood of retention.

### **3. Scheduling**

In addition to wages and promotion, scheduling is another job satisfaction variable. Turner's 1990 retention study conducted among NC officers indicated that longer working hours and uncompensated overtime negatively influenced a nurse's decision to stay in the military. A study of civilian nurse's scheduling indicated that scheduling was a major factor in nurses' job choice (Kocher & Thomas, 1988).

Other important factors in choosing a job are assigned duties and responsibilities. Shigley's 1980 thesis found that as direct patient care increased, NC officers reported a decrease in job satisfaction. Shigley concluded that promotions among NC officers were associated with changing roles from direct nursing care to more administrative roles (1988). Civilian nurses, on the other hand, became less satisfied when direct patient care decreased (Krali & Prus, 1995).

#### **4. Demographics**

Demographic factors also need to be considered when researching retention. It has been found that age is one of the single most important determinants in retention. Workers tend to settle into career paths as age increases. They also become less willing to switch jobs because they fear losing benefits associated with seniority (Maguire, 1993). Scott Payne concluded a study of all United States Air Force officers. Payne found age was a factor in predicting retention (1988). In the civilian nurse market, young RNs are more likely to change nursing occupations (Schumacher, 1997).

In addition to age, other retention studies have examined race and gender factors. Civilian retention studies suggest that men are more likely to stay within the workforce (Schumacher, 1997). A United States Air Force study found that men are more likely to stay on active duty than women (Payne, 1988). Nursing has been predominantly a female dominated labor market. In 1964, the NC allowed the entrance of men (Sterner, 1996).

Another factor examined as a predictor of retention is marital status. NC studies have shown marriage is not a significant predictor for those planning to stay (Shigley, 1988). Civilian studies showed that marital status is a predictor, and that married civilian RNs were less likely to switch occupations than nonmarried civilian RNs (Schumacher, 1997).

## **C. ACCESSION SOURCES**

The purpose of this section is to introduce the different accession sources that are compared and contrasted in this study. The various programs are described. A summary of these programs is provided in Table I.

### **1. Naval Reserve Officer Training Corps**

In FY 1992, the NC began to commission new nurses through the Naval Reserve Officer Training Corps (NROTC). While quotas are derived by NC the community manager, both the Chief of Naval Education and Training (CNET) and the Naval School of Health Sciences (NSHS) manage the NROTC program. Applicants are required to meet the following entrance qualifications: commissioned before their 26<sup>th</sup> birthday (unless a waiver is obtained due to prior active duty), and maintain a 3.0 overall Grade Point Average (GPA) in a full-time program leading to a baccalaureate or master's degree in nursing.

Midshipmen may be in the program for up to four years or 40 academic months. During this program they receive money for tuition, books, fees, uniforms, and a subsistence of \$150 per month. Their summer training program is 45 days during which they receive O-1 pay and allowances. After graduation and commissioning, midshipmen require no additional military training prior to reporting to their first duty station.

**Table I. Nurse Corps Accession Initiatives Summary**

SOURCE	EDUCATION	AGE	TIME	PAY	OBLIGATION
NROTC	<ul style="list-style-type: none"> <li>- Managed by CNET</li> <li>- GPA 3.0</li> <li>- Enter any year</li> </ul>	Commission before age 35	48 months max	<ul style="list-style-type: none"> <li>- Tuition, books fees, uniforms \$150 / month</li> </ul>	<ul style="list-style-type: none"> <li>- 4 years Active Commissioned Service (ACS)</li> <li>- 8 year total obligation (SELRES or IRR)</li> </ul>
NCP	<ul style="list-style-type: none"> <li>- Managed by CNRC</li> <li>- GPA 3.0</li> <li>- In 2<sup>nd</sup> or 3<sup>rd</sup> year of BSN program</li> </ul>	Commission before age 35	24 months max	<ul style="list-style-type: none"> <li>- \$500 / month</li> <li>- \$5000 bonus</li> </ul>	<ul style="list-style-type: none"> <li>- 4 year for 1<sup>st</sup> year</li> <li>- 5 year for 2<sup>nd</sup> year</li> <li>- 8 year total obligation (SELRES or IRR)</li> </ul>
MECP	<ul style="list-style-type: none"> <li>- Managed by NSHS</li> <li>- GPA 2.5</li> <li>- Open to all ratings enrolled or accepted in BSN program</li> <li>- Completed 1 year of education</li> </ul>	Commission before age 35	36 months max	<ul style="list-style-type: none"> <li>- Rating pay / allowances</li> </ul>	<ul style="list-style-type: none"> <li>- 4 year ACS</li> </ul>
DIRECT	<ul style="list-style-type: none"> <li>- Managed by CNCR</li> <li>- Must have BSN</li> </ul>	Age 20 – 35	Not applicable	<ul style="list-style-type: none"> <li>- 01 entry level</li> <li>- eligible for entry grade credit</li> </ul>	<ul style="list-style-type: none"> <li>- 3 year ACS without bonus</li> <li>- 4 year ACS with bonus</li> <li>- 8 year total obligation (SELRES or IRR)</li> </ul>
HSCP/ BDCP	<ul style="list-style-type: none"> <li>- Managed by NSHS</li> <li>- GPA 3.0</li> <li>- Enrolled or accepted in BSN program</li> <li>- Completed 2 year education</li> </ul>	Age 18 – 35	24 months max	<ul style="list-style-type: none"> <li>- E3 pay/ allowances</li> <li>- Promote to E5 possible</li> </ul>	<ul style="list-style-type: none"> <li>- 4 year Active Commissioned Service (ACS)</li> <li>- 8 year total obligation (SELRES or IRR)</li> </ul>
FTOST	<ul style="list-style-type: none"> <li>- Managed by NSHS</li> <li>- GPA 3.0</li> <li>- Must have BSN</li> <li>- Enrolled or accepted in MSN program</li> </ul>	Able to complete 20 year ACS before age 55	27 months max	<ul style="list-style-type: none"> <li>- 01 pay/ allowances promotion eligible</li> </ul>	<ul style="list-style-type: none"> <li>- 3 year for 1<sup>st</sup> year, 6 months for each 6 months or portion there after</li> <li>- 8 year total obligation (SELES or IRR)</li> </ul>

Source: Appendix. Obtained from MED-524; OCT 99.

Mandatory active duty obligation is three to four years depending on when they enrolled. This program requires a total military obligation of eight years, which may be served in the reserves after the active duty obligation is completed (Program Authorization 130A as cited in Jonak & Paradis, 1998).

## **2. Nurse Commissioning Program**

The Nurse Commissioning Program (NCP) became a NC accession source in FY 1993. This program provides financial assistance to students enrolled in a baccalaureate-nursing program. The program is managed by NSHS, with the NC community manager setting the quota. Recruiting is done by Commander, Navy Recruiting Command (CNRC). The NC Professional Review Board (PRB) selects individuals for this program after they have met the following qualifications: commissioned before 35<sup>th</sup> birthday, maintain a 3.0 GPA, and complete baccalaureate degrees within 24 months. Participants are considered inactive reservists while attending school, and receive a \$5000 accession bonus and a subsistence of \$500 per month. Upon graduation and commissioning, individuals are sent to Officer Indoctrination School (OIS) for military training. The active duty obligation is four to five years depending on enrollment time. This program requires an eight-year total military service commitment. (Program Authorization 116C as cited in Jonak & Paradis, 1998).

### **3. Medical Enlisted Commissioning Program**

The Medical Enlisted Commissioning Program (MECP) is available to personnel in all Navy enlisted ratings. Managed by NSHS, the quota is set by the NC community manager. Applicants must be at least 18 years of age, be able to complete 20 years of active commissioned service by age 55, and have completed at least three years on active duty. Individuals are recommended by their Commanding Officer (CO); they must be enrolled or accepted into a baccalaureate degree-nursing program, maintain a 2.5 GPA, and complete their education within 36 months.

While in school, participants maintain their enlisted status and receive full pay and allowances. They do not receive funding for tuition, books, or fees, but may use their veteran's educational benefits. Participation in the program requires individuals to sign a six-year reenlistment contract, which is superseded upon commissioning. Once commissioned, participants must attend OIS for training. The obligation for this program is 48 months, with a total military service obligation of eight years (Program Authorization 116B as cited in Jonak & Paradis, 1998).

### **4. Direct Accession**

Registered Nurse Direct Accession is used only as a supplement to the training pipeline. This source is managed by the CNRC, with the NC community

manager setting the quota. Currently, the NC community manager is attempting to gain more nurses through this source; The number of years experience required for consideration has been lowered to under two years due to recruiting shortfalls.

Applicants must be at least 20 years of age and must not have reached their 35<sup>th</sup> birthday. Qualified individuals must have graduated from an accredited baccalaureate or masters degree program and be a licensed registered nurse. Upon commissioning, individuals must attend OIS for training.

The military service obligation for this program is 36 months with a total obligation of eight years. A \$5000 sign-up bonus is available. Accepting the bonus increases the active duty obligation to 48 months (Program Authorization 116A as cited in Jonak & Paradis, 1998).

#### **5. Health Services Commissioning Program/ Baccalaureate Degree Completion Program**

The Health Services Commissioning Program (HSCP) was a program available for commissions in the dental, nurse, or medical service corps. HSCP preceded the NCP and overlapped the Baccalaureate Degree Completion Program (BDCP). The BDCP also preceded the NCP. Both programs were managed by the CNRC and provided financial incentives for students completing degree requirements and obtaining reserve commissions.

Applicants had to be commissioned before their 35<sup>th</sup> birthday, maintain a 3.0 GPA, and able to complete a baccalaureate degree in 24 months. Those



enrolled in this program were considered active duty E-3's and received full pay and allowances. Individuals also were eligible for advancement to E-4 and E-5 by making the dean's list and making a referral that resulted in an accession. Upon commissioning, individuals were sent to OIS for training. Obligations were 48 months with a total military service obligation of eight years (Program Authorization 132 as cited in Jonak & Paradis, 1998).

#### **6. Full-Time Out-Service Training (FTOST)**

The Full-Time Out-Service Training (FTOST) program was an accession source used to fill critical subspecialty gaps during the late eighties. No longer available, it was managed by NSHS. Applicants had to be able to complete 20 years of active commissioned service by age 55. Participants must have been enrolled or accepted into a Master of Science in Nursing Program and maintain a 3.0 GPA to qualify.

While in school, participants received O1 pay and allowances and also were eligible for promotion. They did not receive funding for tuition, books, or fees. Upon graduation and commissioning, participants attended OIS for military training. The obligation for this program was 36 months service for the first year and six months for each additional six months in the program, with a total military service obligation of eight years (Program Authorization 116B as cited in Jonak & Paradis, 1998).

### **III. COST ANALYSIS**

The Navy Nurse Corps (NC) has various entry sources. Knowing which sources are most effective and cost efficient enables the NC community manager to discriminate between accession sources and make recommendations to the recruiting command. This chapter identifies and compares the direct costs of these different accession sources.

#### **A. BACKGROUND**

A 1998 report, "The Cost of a Sailor Study/Comet Model," defined direct and indirect personnel costs. Direct personnel costs basically include the categories reported on the Leave and Earnings Statement (LES). These costs include base pay, special pay, and allowances. Other direct costs include retirement accrual and Permanent Change of Station (PCS). Indirect costs include variables like recruiting, training, and support personnel. Calculating indirect costs is more difficult, and beyond the scope of this study. Therefore, a rough cost analysis is provided to compare the personnel costs across programs.

#### **B. COST TABLE CONSTRUCTION**

The cost estimation provided in Table II contains the accession source, and the candidate's pay and allowances while enrolled in the program. The table also calculates any bonus individuals may receive, the candidate's pay during OIS, and the cost of OIS. These costs are totaled, and averaged across paygrades as appropriate in the estimate column. The estimate column allows programs to be

compared on a consistent basis. Pay and allowances were obtained from current military pay charts.

**Table II. Accession Cost Estimates**

Source	***Pay & allowance	Bonus	OIS	**Pay during OIS	Total	Estimate
<b>NROTC</b>						
4 years	N/A	N/A	N/A	N/A	*86,000	\$ 86,000
<b>NCP (1993)</b>						
1 year	6,000	5,000				
2 years	6,000	N/A	10,275	2,870	30,045	\$ 30,045
<b>MECP</b>						
1 year E-3	17,716	N/A				
2 years E-3	18,212	N/A				
3 years E-3	18,868	N/A	10,275	3,841	68,912	
1 year E-4	19,520	N/A				
2 years E-4	20,066	N/A				
3 years E-4	21,467	N/A	10,275	3,841	75,169	
1 year E-5	20,999	N/A				
2 years E-5	21,589	N/A				
3 years E-5	23,558	N/A	10,275	3,841	80,262	\$ 74,781
<b>Direct with bonus</b>						
	N/A	5,000	10,275	2,870	17,969	\$ 18,145
<b>Direct without bonus</b>						
	N/A	N/A	10,275	2,870	12,969	\$ 13,145
<b>BDCP/HSCP</b>						
1 year E-3	16,398	N/A				
2 years E-3	16,985	N/A	10,275	2,870	46,528	
<b>BDCP/HSCP</b>						
1 year as an E-3	16,398	N/A				
Year 2 as an E-4	17,874	N/A	10,275	2,870	47,417	\$ 46,973
<b>FTOST</b>						
1 year at O1	25,751	N/A				
Year 2 as an O1	26,680	N/A				
Last quarter O1	6,670	N/A	10,275	3,256	65,962	\$ 79,302

\*Obtained from N131

\*\* Obtained from CNET

\*\*\* Obtained from Basic pay & allowance pay charts 1999, 1998, and 1997.

The NROTC program's average cost was obtained from the officer community manager office (N131). This average cost, which included advertising costs, was \$86,476. The cost of advertising could only be obtained for the NROTC program. This advertising cost is not included in any of the calculations to keep them consistent among the programs. The cost of OIS was obtained from CNET and includes per diem for the six-week school. Per diem for Newport, RI was calculated at \$42.00 a day.

Several assumptions were used to construct Table II. First, individuals were assumed to enroll in the different programs for the maximum possible months. For example, if the program can be used for a maximum of 24 months, then participants are assumed to enroll for 24 months. However, the costs reported here are undiscounted current year costs. Some of the cost data, particularly NROTC costs, were provided in a format that precluded net present value calculations.

Second, costs were calculated by year to reflect the different pay tables used in the past three years. For example, if a program lasts two years, the first year's pay and allowances are estimated by multiplying the 1998 monthly allowances by 12 months; the second year is estimated by multiplying the 1999 monthly allowances by 12 months. To estimate the housing allowance, participants are assumed to be single with no dependents.

Third, to calculate the average costs of the MECP program, participants are assumed to be an E3, E4, or E5, and they do not promote while in the program. Data from the Defense Manpower Data Center (DMDC) database was not sufficient to determine the range and average rank of those participants while enrolled in this program. The costs for the different pay rates are totaled and averaged to give a rough estimate of the MECP program cost.

Fourth, the BDCP/HSCP programs are two-year programs in which an individual might promote. Promotion in these programs is based on making the dean's list. Cost for two scenarios is estimated. In both scenarios, the participants are an E3 after the first year. In the second year, the participant may be either an E3 or E4. These two costs are averaged to estimate the BDCP/HSCP cost.

### **C. COSTS ANALYSIS RESULTS**

The cost estimates indicate that the NROTC, MECP, and FTOST programs are all very expensive at \$86,000, \$74,781, and \$79,320, respectively. The least expensive programs are the direct accession programs. Both are under \$20,000. The NCP is around \$30,000. The BDCP/HSCP programs are \$46,973.

#### IV. DATA AND RESEARCH METHODOLOGY

##### A. DATA SET

The data set was constructed by merging files from DMDC and the Naval Medical Information Management Center's (NMIMC) Bureau of Medical Information System (BUMIS) database. Information was pooled from NC officers, who were commissioned during FY 1992, 1993, and 1994. The number of nurses for each program and each FY is provided in Table III. These three cohort groups are used to ensure an adequate sample size of individuals.

**Table III. Database Composition and Size**

Source	FY 1992	FY 1993	FY 1994	Total
MECP	50	53	50	153
Direct no bonus	46	20	6	72
Direct with bonus	67	21	40	128
NROTC	7	9	20	36
BDCP	292	175	129	596
NCP	0	21	28	49
FTOST	16	6	0	22
*Recall	10	10	2	22
*Others	1	3	3	6
Total	489	318	277	1084

Obtained for BUMIS files \*Unused files

The files from the two databases were merged by social security numbers. Duplicate files and the accession sources not used in this study were deleted. A total of 28 files were deleted from the data set.

Cohort data allows NC officers to be tracked from a specific point in time to an endpoint. The individuals in FY 1992 and 1993 were tracked for 60 months. The FY 1994 cohort was tracked for 59 months. The 60<sup>th</sup> month for FY 1999 was not available.

The NC officers who extended beyond their initial obligation are defined as “successful.” The initial obligation is 48 months or less for all programs, except for the 2-year NCP program. The initial obligation for individuals enrolled in the two year NCP program is five years. At 60 months, the NC officers in this study should have reached the end of their initial obligation.

The variables from the data files, the multivariate regression model, and the logistic regression analysis model are listed in Table IV.

**Table IV. Database Variables and Descriptions**

<b>Variable</b>	<b>Description</b>
DEGREE	Highest Degree obtained at time of commissioning
EDUC	Highest level of education obtained at time of commissioning
EDUC5	Highest level of education obtained at end of five years
FY	Fiscal year officer entered the NC
ENTRYAGE	Age at time of entering the NC
ACCESOU	Accession Source Category
BDCP/HSCP	Baccalaureate Degree Completion Program/Health Services Commissioning Program; value of 1 otherwise 0
MECP	Medical Enlisted Commissioning Program; value of 1 otherwise 0

**Table IV (Continued)**

<b>Variable</b>	<b>Description</b>
NCP	Nurse Commissioning Program; value of 1 otherwise 0
DIRB	Direct from civilian nursing sign-on bonus; value of 1 otherwise 0
DIR	Direct from civilian nursing; value of 1 otherwise 0
FTOST	Full-Time Out-Service Training; value of 1 otherwise 0
NROTC	Naval Reserve Officer Training Corps; value of 1 otherwise 0
RANK	Rank when commissioned
DTYSTA	First duty station
SIZE	Size of the first duty station coded as small, medium, large, overseas, or other
SMALL	Indicates a small first duty station; value of 1 otherwise 0
MEDIUM	Indicates a medium first duty station; value of 1 otherwise 0
LARGE	Indicates a large first duty station; value of 1 otherwise 0
OVERSEAS	Indicates a first duty station overseas; value of 1 otherwise 0
OTHER	Indicates a first duty station other than small, medium, large or overseas; Value of 1 otherwise 0
GENDER	Gender of officer; coded either female or male
FEMALE	Value of 1 otherwise 0
MALE	Value of 1 otherwise 0
DEPSTAT	Dependent status at time of commissioning
FAMSTAT	Family status at time of commissioning; coded as SNC, SWC, MNC, MWC
SNC	Family status at commissioning; single with no children value of 1 otherwise 0
SWC	Family status at commissioning; single with children value of 1 otherwise 0
MNC	Family status at commissioning; married with no children value of 1 otherwise 0
MWC	Family status at commissioning; married with children value of 1 otherwise 0
MONTHSER	Total months of federal service
PRIORSER	Individuals with months of federal service > maximum accession program time have prior military service; value of 1 otherwise 0
RACE	Race of NC officer may be coded white, black or other
BLACK	Value of 1 otherwise 0
WHITE	Value of 1 otherwise 0
OTHERR	A race other than Black or white; value of 1 otherwise 0
RANK	Commissioning rank
ENS	Commissioning rank; Ensign value of 1 otherwise 0
LTJG	Commissioning rank; Lieutenant Junior Grade value of 1 otherwise 0



**Table IV (Continued)**

<b>Variable</b>	<b>Description</b>
LT	Commissioning rank; Lieutenant value of 1 otherwise 0
RETAIN	Those retained on active duty at the five year endpoint; value of 1 otherwise 0

**B. CREATED VARIABLES**

The five-year files were compared with the initial files to determine which individuals had remained on active duty. This combined information was used to create the variable retain. Other created variables include prior service and family status. These variables are based on the following DMDC data files.

**1. Prior Military Service**

Examining an individual's months of federal service created a prior military service variable. The "monthser" variable in the DMDC files contains all months of federal service, including the time spent in these accession programs. Federal service is assumed to be military service. The months spent in these accession programs must be considered to calculate a prior service variable. The NCP, BDCP, and HSCP programs allow a maximum of 24 months to complete. If an individual entered the Navy through the NCP or BDCP/HSCP programs, and has more than 24 months of federal service, they are assumed to have prior military service. The FTOST program allows a maximum of 27 months to complete.

FTOST participants entering the Navy with more than 27 months-federal service are assumed to have prior military service.

The months of federal service for RNs entering the Navy directly from civilian nursing were also examined. Many direct accession nurses had less than 12 months of government service. This maybe a result of RNs signing up and then waiting for an OIS class. Therefore, only direct accessions with more than 12 months of federal service are assumed to have prior military service.

The NROTC program allows participants a maximum of 48 months to complete their degrees. Those participants in the NROTC program with greater than 48 months of federal service are assumed to have prior military service. MECP is only available to active duty personnel. All individuals entering the NC through MECP are assumed to have prior military service.

## **2. Family Status**

Combining DMDC's marital status and dependent status variables created the family status variable. If an individual is not married and has no dependents, they are assumed to be single with no children (SNC). If an officer is married and has no dependents, they are assumed to be married with no children (MNC). Officers not married and claiming dependents are assumed to be single with children (SWC). Officers married and claiming more than 1 dependent are assumed to be married with children (MWC). Unfortunately, officers who are

married to other active duty members may have been miss-classified under these assumptions. These officers appear as married, but with no dependents. They may have children who are claimed as their spouse's dependents. There are fewer than 20 individuals married to other active duty members. These officers are classified as MNC.

### **3. Size**

A variable for the first duty station size was created from the BUMIS files. Patient load, services, and location were the factors considered in creating the different hospital categories. The "overseas" category included overseas duty stations. The NC community manager verified the commands' categories. The "large" category included Naval Hospitals in San Diego, Portsmouth, Oakland, and Bethesda. The "medium" category included Naval Hospitals in Jacksonville, Pensacola, Camp Pendleton, Camp Lejune, and Bremerton. The "small" category included Naval Hospitals in Millington, Orlando, Charleston, Cherry Point, Corpus Christi, Groton, Great Lakes, Beauford, Long Beach, and LeMoore. The "other" category included all other duty stations.

### **4. Fiscal Year**

A variable for the individual's fiscal year group also was created. This information was obtained from the BUMIS files and indicates the FY in which an individual entered the NC.

### C. RESEARCH METHODOLOGY

Previous studies have used multivariate analysis to model behavior. In a 1989 retention study, McMahon used a multivariate model to examine factors that influence a Navy physician's decision to remain on active duty or resign. This study hypothesized that independent variables like pay differentials, family status, source on entry, career progression, and field of specialty could be used to model retention. In 1992, Cooke & Quester examined characteristics of "successful" male recruits. Their study used independent variables like education, marital status, entry age, race/ethnicity, and program of entry to model reenlistment. These studies used multivariate regression and logistic regression models. Multivariate regression uses independent variables to "explain" the change in the dependent variable, while holding everything else constant.

A logistic regression model is used here to measure the probability a NC officer remains on active duty beyond their initial obligation.

Equation 1. The logistic regression model.

**Retain =  $f$  (accession source, family status, entryage, race, gender, rank, first duty station, and prior service)**

The rationale for selecting the independent variables used in this logistic model are described below. Individuals who enter the service under different accession programs have different retention rates. Married personnel could

possibly be more motivated to stay and complete a Navy career. Older personnel seem to understand the job market better, and are closer to retirement benefits. The race and sex variables identify differences between individuals. This does not indicate discrimination, but merely hypothesizes that these factors help explain resignation and extension decisions. Finally, individuals with prior military service are believed to be more likely to remain on active duty, because they understood the military organization and culture upon enrollment. Those with higher rank, upon entering the NC, are believed to remain on active duty because increased rank assumes greater status and pay.

Other variables, which help determine retention probability include, annual fitness reports (“fitreps”), promotion, and personality information, but were unavailable. Similarly, education and degree have been used in the prior studies to explain retention, however, these variables do not vary enough to be useful; so they are omitted in this model. (Cooke & Quester)

## V. FINDINGS

### A. BIVARIATE FINDINGS

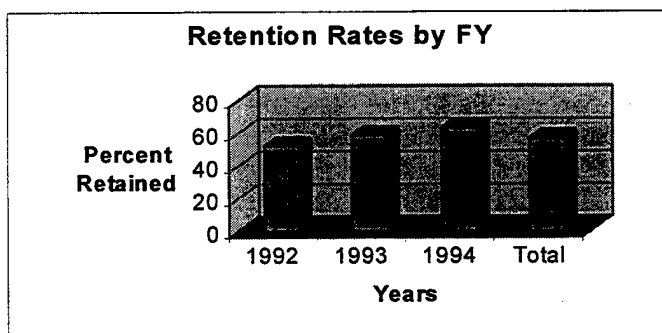
The tables and figures in this section provide retention rates, demographic characteristics, and categorical descriptions of the sample.

#### 1. FY Retention Rates

The retention rate of the cohorts at five years is presented in Table V and Figure 1. The rates range from 52.3 percent to 63.4 percent. The total mean is 57.1 percent. A one-way analysis of variance (ANOVA) is used to determine if a significant difference exist among the cohorts' retention rates. The null hypothesis assumes retention rates are equal. The null hypothesis is not rejected at the five-percent level. The cohorts' retention rates do not vary significantly, and therefore are examined as one.

**Table V. Retention by FY**

<b>FY Retention Rates</b>	<b>Retention Rate (percent)</b>
1992	52.30
1993	59.02
1994	63.37
Total	57.10



**Figure 1. Cohort Retention Rates**

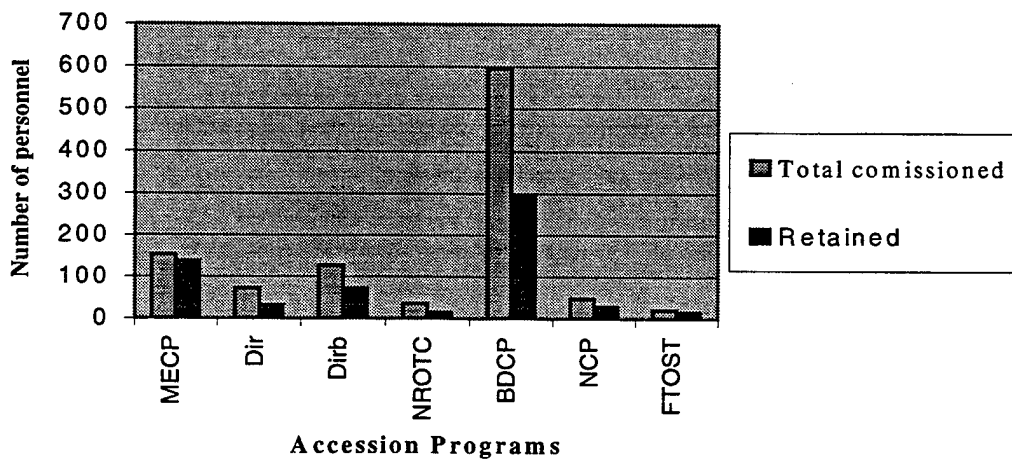
## 2. Accession Source Retention Rates

The distribution and retention rates of the accession programs are examined in Table VI and Figure 2. MECP has the highest retention rate at 90.2 percent. The NROTC program has the lowest rate at 41.7 percent. The overall retention rate for the sample is 57.1 percent.

**Table VI. Accession Source Retention Rates**

Retention of Accession Sources	Total Commissioned	Totals (percent)	Total Retained	Total Retained (percent)
MECP	153	14.5	138	90.2
Dir	72	6.8	32	44.4
Dirb	128	12.1	73	57.0
NROTC	36	3.4	15	41.7
BDCP	596	56.4	298	50.0
NCP	49	4.6	30	61.2
FTOST	22	2.1	17	77.3

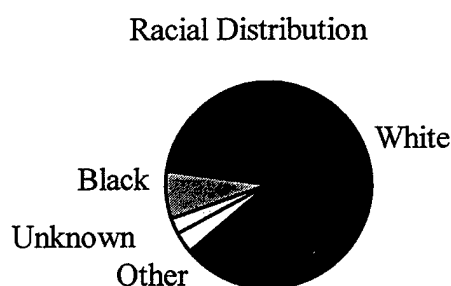
**Retention by Accession Source**



**Figure 2. Retention by Accession**

### 3. Race

The majority of individuals, 86.7 percent, entering the NC during FY 1992, 1993, and 1994 are reported as white; 7.1 percent are reported as black. The remaining individuals are reported as either unknown (2.5 percent) or other (3.1 percent). The distribution is graphically shown in Figure 3.



**Figure 3. Racial Distribution**

The highest percentage of blacks occurs in the NROTC program, while the other race category is not represented in this program. The number of blacks in the NCP was zero. There are no significant differences across the races.

**Table VII. Racial Distribution of Accession Sources**

Accession Source	Black	White	Other	Unknown
MECP	9.2	79.7	3.92	7.2
NROTC	16.7	80.6	0	2.8
Direct	8.6	90	1.4	0
Direct with bonus	7.9	85	4.7	2.4
NCP	0	98	2	0
BDCP/HSCP	7.4	88	3	1.5
FTOST	4.6	81.8	4.6	9
Total	7.7	86.7	3.4	2.4



#### 4. Gender

The distribution of male and females by accession source are presented in Table VIII. The NC is a predominately female, averaging approximately 80 percent of all accessions. The MECP is the only accession program in which males exceed females. Males account for approximately 60 percent of MECP.

**Table VIII. Gender Distribution by Accession Source**

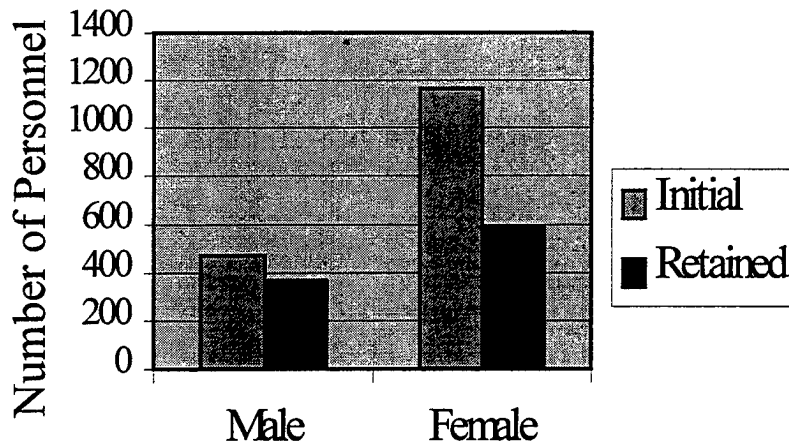
<b>Accession Source</b>	<b>Males</b>	<b>Percent</b>	<b>Females</b>	<b>Percent</b>
MECP	93	60.8	60	39.2
NROTC	5	13.9	31	86.1
Direct no bonus	15	20.8	57	79.2
Direct with bonus	26	20.3	102	79.7
BDCP/HSCP	135	22.7	461	77.3
NCP	13	26.5	36	73.5
FTOST	5	22.7	17	77.3

The gender retention rates are presented in Table IX and Figure 4. The male five-year retention rate is 76 percent; the female five-year retention rate is 50 percent. This indicates that males are more likely to stay on active duty than females.

**Table IX. Retention by Gender**

<b>Gender</b>	<b>Initial</b>	<b>Retained</b>
Male	471	366
Female	1163	590

### Retention by Gender



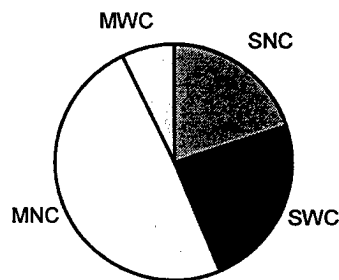
**Figure 4. Retention by Gender**

### 5. Family Status

The frequencies of the various family status categories at the time of commissioning are provided in Table X and Figure 5. Married with no children accounts for 49 percent of the sample, the largest family status category. Single with children includes 23.9 percent of the sample, the second largest category.

**Table X. Family Status Distribution**

Family Status	Number	Percent Rate
SNC	209	19.9
SWC	251	23.9
MNC	514	49.0
MWC	75	7.1



**Figure 5. Family Status of Sample**

Single with no children, 19.9 percent, and married with children, 7.1 percent, are the smallest groups.

The retention rates of the different family status groups are provided in Table XI. The MWC group has the highest retention rate, at 70.5 percent.

**Table XI. Retention Rates of the Family Status Groups**

<b>Family Status Group</b>	<b>MNC</b>	<b>MWC</b>	<b>SNC</b>	<b>SWC</b>
Retention Rate	57.4	70.5	51.2	57.3

**6. Rank**

Ninety-four percent of individuals entering the NC are commissioned as Ensigns (ENS). Retention rates are predicted to increase as rank increases, because individuals with more rank have more tenure, and better pay. Both seniority and better pay are associated with greater job satisfaction. The rank distributions and rank retention rates are provided in Table XII.

**Table XII. Rank Retention's and Distribution**

<b>Rank at Commissioning</b>	<b>Number of Individuals</b>	<b>Percent of Accessions</b>	<b>Number Retained</b>	<b>Retention Rate (percent)</b>
Ensign (ENS)	995	94.2	564	56.7
Lieutenant Junior Grade (LTJG)	48	4.6	29	60.4
Lieutenant (LT)	13	1.2	10	76.9

The majority of individuals participating in the MECP, NCP, BDCP/HSP, and NROTC programs were commissioned Ensigns. Those who participated in FTOST and entered as direct accessions were commissioned as Ensigns, Lieutenant Junior Grade or Lieutenant.

#### **7. Entry Age**

The difference in the entry age of those who remained on active duty and those who left is very small. The mean entry age is 23.8 years. The mean entry age of those individuals who remained on active duty is 23.5 years. The mean entry age of those individuals who did not remain on active duty is 24.1 years.

#### **8. Prior Service**

The retention rate is predicted to be better for individuals with prior service. Those in the study with prior service had a 62.9 percent retention rate; those with not prior service had a 46.5 percent retention rate.

#### **9. First Duty Station**

The majority of NC officers were first assigned to a large duty station. The distribution and retention rates of these first assignments are presented in Table XIII. The assignments to small and medium commands involved 23.1 and 20.1 percent of the sample, respectively; the corresponding retention rates were 55.7 and 60.4 percent. Large commands had a 54.1 percent retention rate, which is the lowest.

**Table XIII. First Duty Station Distribution and Retention**

<b>First Duty Station Size</b>	<b>Number Assigned</b>	<b>Percent of Sample</b>	<b>Number Retained</b>	<b>Retention Rate (percent)</b>
Large	499	47.3	270	54.1
Medium	212	20.1	128	60.4
Small	244	23.1	136	55.7
Overseas	75	7.1	49	65.3
Other	26	2.4	20	76.9

The results indicate that accession sources attract individuals who possess similar characteristics and these characteristics are beneficial in predicting retention. For example, the MECF program attracts and retains more males with prior service than any other source.

## **B. MULTIVARIATE ANALYSIS**

A multivariate analysis was used to estimate the relationship between those remaining on active duty and accession sources, while controlling for several independent variables. The variables included in the initial model were accession source, FY group, gender, race, prior service, family status, rank, and age at time of commissioning.

### **1. Multicollinearity**

The variables were examined for multicollinearity. Multicollinearity occurs when variables are highly correlated and possibly measure the same characteristic

(Gujarati, 1999). The examination concluded that none of the variables were highly correlated.

## 2. Goodness of Fit

Goodness of fit explains the variation in the retain variable using the independent variables. The study's  $-2 \text{ Log L Likelihood}$  statistic p-value was .0001, indicating that at least one of the coefficients of an explanatory variable is nonzero; therefore this model has value in explaining retention.

The model was run several times omitting selected variables. After each run, the Akaike Information Criterion (AIC), which adjusts the  $-2 \text{ Log}$ , was examined. The model with the lowest AIC value is considered the best predictor (Peterson & Harrel, 1990). In this study, the model with the lowest AIC value omitted the FY groups.

## 3. Estimated Coefficients

The estimated regression coefficients for retaining are provided in Table XIV.

**Table XIV. Estimated Regression Coefficients**

Variable	Coefficient Estimates	Standard Error	Pr> Chi-square
Intercept	-0.0738	(0.4693)	0.8751
Black	-0.1717	(0.2526)	0.4968
Otherr	0.3434	(0.3223)	0.2867
Male	0.8136	(0.1718)	0.0001 **
MNC	.0827	(0.1784)	0.6430
MWC	0.3722	(0.2026)	0.0662 *
SWC	0.1410	(0.2823)	0.6174

Table XIV (Continued)

Variable	Coefficient Estimates	Standard Error	Pr> Chi-square
LTJG	0.3734	(0.3630)	0.3026
LT	1.1388	(0.8742)	0.1927
Priorser	0.2903	(0.1685)	0.0850 *
Entryage	-0.0162	(0.0184)	0.3796
Medium	0.1572	(0.1802)	0.3830
Small	-0.3021	(0.1816)	0.0962 *
Other	-0.0692	(0.2970)	0.8157
Overseas	0.8506	(1.0615)	0.4229
NROTC	-0.0408	(0.3728)	0.9130
NCP	0.6179	(0.3279)	0.0595 *
FTOST	0.2460	(1.1701)	0.8335
MECP	1.7839	(0.3019)	0.0001 **
DIR	-0.1739	(0.2845)	0.5410
DIRB	0.4322	(0.2315)	0.0620 *

Note: The base case is a white female, single with no children, who entered the NC through the BDCP/HSCP, and was assigned to a large command.

Entries with two asterisks are significant at the  $\alpha=0.05$  confidence level.

Entries with an asterisk are significant at the  $\alpha=0.10$  confidence level.

#### 4. Partial Effects

Using a logistic regression model, the probability that an individual will retain was calculated. Partial effects compare the different probabilities. At all confidence levels, the results indicated that male NC officers are 20 percent more likely to retain than female NC officers, holding constant all other variables (*ceteris paribus*). The results also indicated that NC officers who entered the NC

through the MECP were 40.2 percent more likely to retain than NC officers who entered through the BDCP/HSCP, *ceteris paribus*.

At the .10 confidence level, the results indicated that NC officers who entered with a family status of MWC were nine percent more likely to retain than NC officers entering with a family status of SNC, *ceteris paribus*. Those with prior military service were seven percent more likely to retain than those without prior military service, *ceteris paribus*. New NC officers assigned to a small command were seven percent less likely to retain than new NC officers assigned to a large command, *ceteris paribus*. Officers entering the NC through the NCP were 15 percent more likely to retain than those entering through the BDCP/HSCP, *ceteris paribus*. Officers entering the NC by direct accession with a bonus were eleven percent more likely to retain, than officers entering the NC through the BDCP/HSCP, *ceteris paribus*.



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## VI. CONCLUSIONS AND RECOMMENDATIONS

### A. EVALUATING THE ACCESSION SOURCES

The different accession sources with their estimated costs and retention rates are presented in Table XV. The accession sources are ranked by cost from most expensive to least expensive.

**Table XV. Accession Source Comparison**

<b>Accession Source</b>	<b>Estimated Cost (dollars)</b>	<b>Retention Rate (percent)</b>
NROTC	\$ 86,000	41.7
FTOST	\$ 79,302	77.3
MECP	\$ 74,781	90.2
BDCP/HSCP	\$ 46,973	50.0
NCP	\$ 30,045	61.2
Direct with bonus	\$ 18,145	57.0
Direct without bonus	\$ 13,145	44.4

#### 1. NROTC

The number of individuals entering the NC through this program has increased in the last nine years. According to MED-526, this program has the largest authorization (60) for new individuals. The comparison of programs found that NROTC has the lowest retention rate and the highest estimated cost.

#### 2. FTOST

This program was the second most expensive, and had the second highest retention rate, at 70.3 percent. The majority of the NC officers entering this

program entered at higher ranks, explaining the high retention rate. Past studies have shown retention increases as pay and seniority (rank) increase. Higher rank brings both increases in pay and seniority.

### **3. MECP**

The MECP had the highest retention rate, at 90 percent, and ranked as the third most expensive. The information about the pay of participants was not available, leaving the cost estimate considerable room for error. Despite the high retention rate, the data does not indicate how long these individuals have until they are eligible for retirement.

The high MECP retention rate was consistent with the Jonak and Paradis study. Jonak and Paradis concluded that the MECP retention rate made it a good NC accession source. Today, this accession source is one of the three accession sources used by the Navy, and has a current annual authorization of 50 participants.

### **4. BDCP/HSCP**

Both programs were discontinued with the last inputs entering in 1995. The programs had a median cost of \$46,973 and a retention rate of 50 percent. These programs accounted for 56 percent of the study's sample.

## **5. NCP**

This program replaced the BDCP/HSCP. Today, the total annual authorization is 40 to 50 participants. The program appears to be an excellent bargain; it costs \$30,045 per accession and retains 61.2 percent of accessions. However, this retention rate may be deceptive. All the other programs have obligations of three or four years. By examining the retention rate at the five-year point, individuals not retaining have time to process out. Individuals participating in NCP for two years are obligated for five years of active duty service; therefore, the data may not reflect "unsuccessful" accessions who may not yet have processed out of the service.

## **6. Direct Accessions**

The direct accession program, which allowed civilian RNs to directly enter the NC, has been discontinued. These direct accessions may or may not have included a bonus, but both had the lowest costs. The bonus obligated NC officers to serve four years; without the bonus NC officers were obligated for three years. The direct source with the bonus was more expensive of the two, and had the better retention rate (57 percent vice 44 percent).

## **B. RECOMMENDATION**

The accession source comparison table (Table XV) showed comparisons based on cost and retention rates. In the future, this table could contain more

information to allow for an extensive comparison. Without a thorough comparison, policy makers may not take into consideration all aspects of whom and how the Navy attracts, trains and retains high quality productive personnel capable of meeting the demands and challenges of the NC mission.

### **1. Considerations for Future Studies**

This study calculated rough costs to compare accession sources. The cost analysis section could be improved by incorporating more accurate costs and extensive cost analysis. For example, if the ranks of individuals who participated in the MECP, BDCP/HSCP and NCP programs were available the calculations could have been refined.

The comparison table (Table XV) provides retention rates by accession source, but is correlated to a desirable retention rate. The NC does not require 100 percent retention. Construction of a Markov model would help determine steady-state. The model could predict retention rates and accessions as defined by steady-state.

Accession source attrition rates, before completing the initial tour of duty, may indicate screening or recruiting problems. Some accession sources may be targeted at individuals who are not compatible with military service.

Other tools worth investigating are psychological testing tools, such as the Myers-Briggs Type Indicators. Psychological tests could develop profiles, that

could help predict which individuals might be "successful" in the NC. Psychological profiles could also be used to place NC officers at commands and jobs; placement might improve performance and retention.

## **2. Model Problems**

This study examined retention over a five-year period. The model does not predict which individuals might continue military service to retirement. The model does not indicate who are top performers or how to measure top performance. The model does not explain all of the behaviors and reasons for retaining or not retaining. Longitudinal studies, exit interviews and personnel surveys could prove beneficial in explaining these additional performance and retention patterns.

## **C. SUMMARY**

This study examined the costs and benefits of various NC accession sources. This information was used to construct a table, which compared the costs and retention rates of alternative accession sources. In the future, other information, like attrition rates, could be added to the comparison table. This study also used logistic regression to model "success." This study defined "success" as the ability to retain past initial obligation or the five-year point. This logistic regression model indicated that both males and individuals that entered the NC through the MECP were more likely to retain. These findings were significant,

and support the findings of past studies. The model also demonstrated that accession sources could be used to predict "success" of NC officers. In the future, other logistic regression models may be developed that could include variables that measure behaviors and attitudes. Psychological tools and information obtained from longitudinal studies, surveys and exit interviews may provide this information.

**APPENDIX. NURSE CORPS PROGRAMS - FY99**

Prepared by MED-526; 13 May 99; revision #7

Prog	Age Req.	Education	Prof. Qual	Svc. Ob	Auth.	Output	PAY	Time Req.	Special Notes
MECP Annual selection board in December	Commissioned before age 35	Open to all ratings; Accepted in Nationally accredited BSN program; 30 sem hrs credit	Must be AD Navy	4 years AD	~ 50/yr	FY90 - 25 FY91 - 27 FY92 - 50 FY93 - 53 FY94 - 52 FY95 - 46 FY96 - 51 FY97 - 55 FY98 - 51 FY99 - 52	Pay and allow of enlisted rate No tuition, books, or fees	Must complete in 36 months or less	Counts as active enlisted strength while in school; Commissioned upon graduation; Attends OIS as soon after graduation as possible
NCP (29052) Subsidized prog	Commission prior to 35th Bday; Must be able to complete 20 yrs ACS before age 55	Must have completed 2nd yr of accredited BSN prog; GPA must be 2.5/4.0 scale; Outputs may vary due to funding & input @ JR/SR	High school graduate (See Education)	1 yr school - 4 yrs ACS 2 yrs school - 5 yrs ACS SELRES or IRR - 8 yrs total mil service	40 to 50/yr	FY93 - 21 FY94 - 30 FY95 - 44 FY96 - 44 FY97 - 45 FY98 - 50 FY99 - 40	\$5000 access bonus; \$500/mon; No tuition or fees	Must complete in 24 months; Not eligible 6 months from graduation	Counts as inactive reserve end strength; Commissioned (inactive) at graduation; Ordered to OIS (& AD) after NCLEX
NROTC Scholarship prog	Commission before age 26, unless prior AD; Waive to 29	Selected by CNET GPA; Must be 3.0 overall C average in related sciences; Outputs change with 4 yr prog	High School graduate (See Education)	4 yrs AD Total of 8 yrs mil service (SELRES or IRR)	60/yr	FY90 - 01 FY91 - 05 FY92 - 07 FY93 - 09 FY94 - 21 FY95 - 63 FY96 - 87 FY97 - 99 FY98 - 81 FY99 - 60	Tuition & Texts; Subsistence of \$100/mon; Uniforms, fees	Not to exceed 4 yrs school; Max of 40 academic mon; Summers are training periods	Counts as NROTC midshipman while in school; Commissioned at time of grad; May request voluntary delay for AD up to 12 months; Does not attend OIS



Prog	Age Req.	Education	Prof. Qual	Svc. Ob	Auth. Output	PAY	Time Req.	Special Notes
TNWOP 7565	Appointed prior to 42nd b'day (waiverable)	Graduate from accredited AA program; Licensed RN in good standing	(see Education)	3 yrs AD, total 8 yrs service, balance served in IRR	Authorized only accept those current in program	Pay & allowances of warrant grade held		
HSCP (29057) subsidized program (last outputs in FY95)	18 - 35	Enrolled or accepted in accred. BSN prog Must have at least 90 qtr hrs credit Cumulative GPA of 3.0 on 4.0 scale (2.8 if minority)		4 yrs ACS; 8 yrs total mil service (SELRES or IRR)	Last outputs in FY95	Full pay & allow of E-3 Meritorious promo: 1) on Deans list X2 consec sem or 3 qtrs 2) refers indiv who is accepted in prog No tuition or fees	Must be able to complete in 24 months	Count as active duty enlisted end strength while in school; Commissioned at time of grad. with no break in active service; Attend OIS as soon after graduation as possible
FTOST (last inputs in FY93)	If unable to complete 20 yrs ACS before 55, must sign stmt re: Ineligible for USN	Enrolled or accepted in Master's prog; Accredited by NLN or AANA; GPA 3.0/4.0 scale Specialty mix determined annually.	BSN	3 yrs initial oblig, starts in school; oblig for school is 3 yrs for 1st yr, 6 mos - every 6 mos or portion of; 8 yrs total mil serv (SELRES of IRR)	Last inputs in FY93  (inputs): FY89 - 4 FY90 - 21 FY91 - 13 FY92 - 16 FY93 - 6	Full pay & allow of grade (elig & comp for advan); No tuition, books, fees	Must be able to complete in 27 months	Active strength when commissioned & commences AD; Attend OIS after graduation

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