

NPS-54-89-10

1423

# NAVAL POSTGRADUATE SCHOOL

## Monterey, California



**1987 U.S. ARMY NURSE MEMBERSHIP,  
ACCESSION AND LOSS PROFILES:  
VOLUME II, ACTIVE DUTY**

George W. Thomas  
Kathryn Kocher  
Benjamin J. Roberts

June 1989

Approved for public release; distribution unlimited.

FedDocs  
D 208.14/2  
NPS-54-89-10

Prepared for: U.S. Army Recruiting Command  
Program Analysis and Evaluation Directorate  
Research and Studies Division  
Ft. Sheridan, IL 60037-6000

DUDLEY KNOX LIBRARY  
NAVAL POSTGRADUATE SCHOOL  
MONTEREY, CALIFORNIA 93943-6002

NAVAL POSTGRADUATE SCHOOL  
Monterey, California

RADM. R. C. Austin  
Superintendent

Harrison Shull  
Provost

The research summarized herein was sponsored by U.S. Army Recruiting  
Command Program Analysis and Evaluation Directorate.

Reproduction of all or part of this report is authorized.

This report was prepared by:

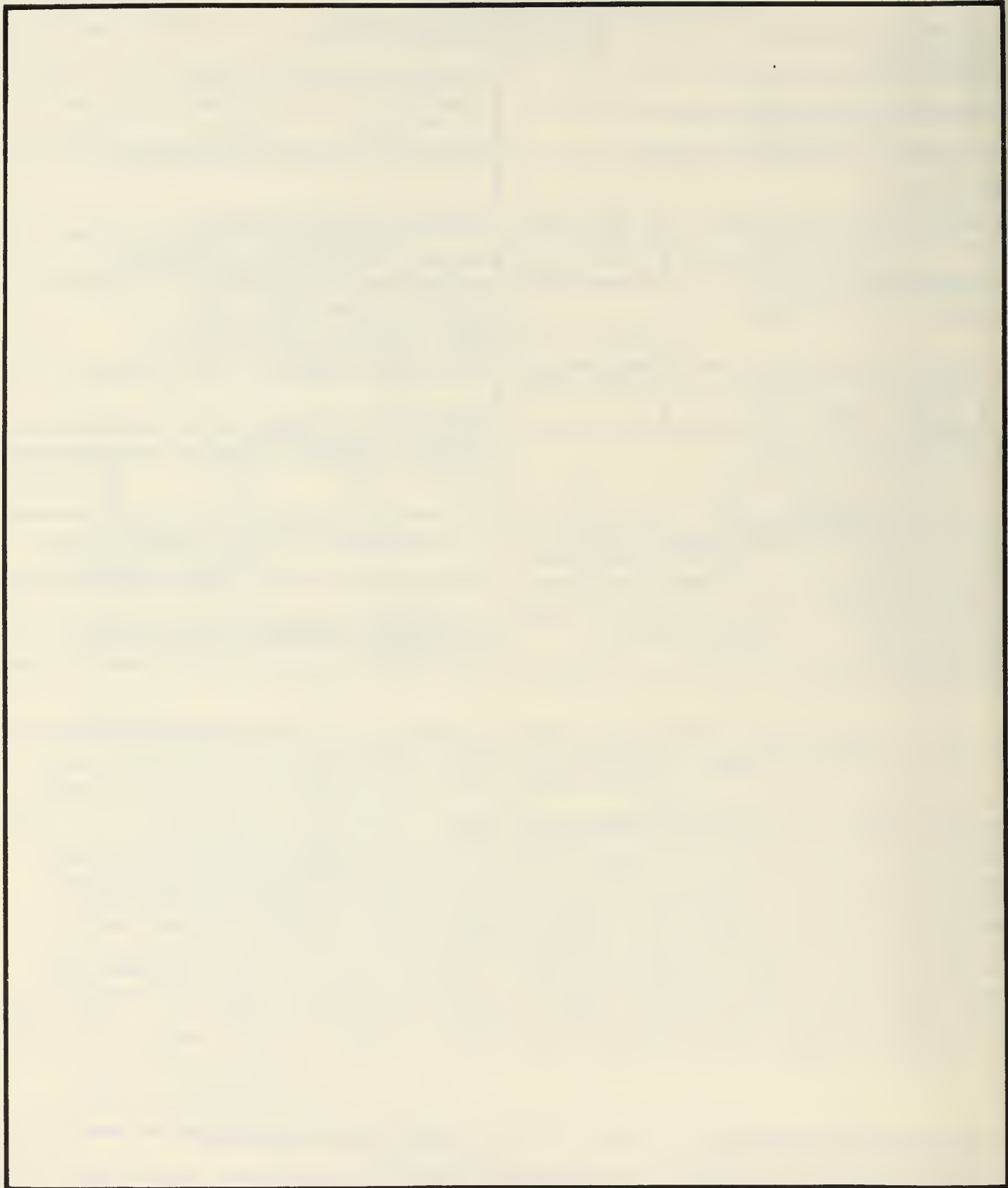
UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE

REPORT DOCUMENTATION PAGE

Form Approved  
 OMB No 0704-0188

1a REPORT SECURITY CLASSIFICATION Unclassified			1b RESTRICTIVE MARKINGS			
2a SECURITY CLASSIFICATION AUTHORITY			3 DISTRIBUTION / AVAILABILITY OF REPORT Approved for public release; distribution is unlimited			
2b DECLASSIFICATION / DOWNGRADING SCHEDULE			4 PERFORMING ORGANIZATION REPORT NUMBER(S) NPS-54-89-10			
4 PERFORMING ORGANIZATION REPORT NUMBER(S) NPS-54-89-10			5 MONITORING ORGANIZATION REPORT NUMBER(S)			
6a NAME OF PERFORMING ORGANIZATION Naval Postgraduate School		6b OFFICE SYMBOL (If applicable) 54		7a NAME OF MONITORING ORGANIZATION U. S. Army Recruiting Command, Program Analysis and Evaluation Directorate		
6c ADDRESS (City, State, and ZIP Code) Monterey, CA 93943-5000			7b ADDRESS (City, State, and ZIP Code) HQUSAREC PAE-MM, Bldg. 48-C Fort Sheridan, IL 60037-6000 Attn: LTC R. Moore			
8a NAME OF FUNDING / SPONSORING ORGANIZATION U.S. Army Recruiting Command (same as 7a)		8b OFFICE SYMBOL (If applicable)		9 PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER MIPR 87-64		
8c ADDRESS (City, State, and ZIP Code) USAREC PAE-MM, Bldg. 48-C Ft. Sheridan, IL 60037-6000 Attn: LTC R. Moore			10 SOURCE OF FUNDING NUMBERS			
			PROGRAM ELEMENT NO	PROJECT NO	TASK NO	WORK UNIT ACCESSION NO
11 TITLE (Include Security Classification) 1987 U.S. ARMY NURSE MEMBERSHIP, ACCESSION AND LOSS PROFILES: VOLUME II, ACTIVE DUTY (Unclassified)						
12 PERSONAL AUTHOR(S) Thomas, George W., Kathryn Kocher and Benjamin J. Roberts						
13a TYPE OF REPORT Final Report		13b TIME COVERED FROM _____ TO _____		14 DATE OF REPORT (Year, Month, Day) June 1989		15 PAGE COUNT 30
16 SUPPLEMENTARY NOTATION						
17 COSATI CODES			18 SUBJECT TERMS (Continue on reverse if necessary and identify by block number)			
FIELD	GROUP	SUB-GROUP	Army nursing; nurse shortage; nurse recruitment; nurse accessions; nurse losses; characteristics of RA nurses			
19 ABSTRACT (Continue on reverse if necessary and identify by block number) The purpose of this report is to provide profiles of Active Duty Army nurses to aid in developing strategies and policies for recruiting, managing, and retaining registered nurses in the face of a national nursing shortage. Data from Defense Manpower Data Center personnel files were used to describe Regular Army (RA) nurse officers as of September 30, 1987 and transactions information was used to identify those who entered and those who left Active service in FY 1987. Profiled characteristics include: age, gender, race-ethnic group, marital status, number of dependents, highest educational level, rank, age at service entry, length of service, and nursing specialty. Comparisons of RA nurses and USAR nurses are made on the basis of Volume I of this series of reports.						
20 DISTRIBUTION / AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT <input type="checkbox"/> DTIC USERS				21 ABSTRACT SECURITY CLASSIFICATION Unclassified		
22a NAME OF RESPONSIBLE INDIVIDUAL George W. Thomas, Associate Professor				22b TELEPHONE (Include Area Code) (408) 646-2741		22c OFFICE SYMBOL Code 54Te



**1987 U.S. ARMY NURSE  
MEMBERSHIP, ACCESSION AND LOSS PROFILES:  
VOLUME II, ACTIVE DUTY**

**BY**

*George W. Thomas  
Kathryn Kocher  
Benjamin J. Roberts*

**JUNE 1989**

**PREPARED BY**

**DEPARTMENT OF ADMINISTRATIVE SCIENCES  
NAVAL POSTGRADUATE SCHOOL  
MONTEREY, CA 93943-5000**

**FOR**

**U S ARMY RECRUITING COMMAND  
PROGRAM ANALYSIS AND EVALUATION DIRECTORATE  
RESEARCH AND STUDIES DIVISION  
FT. SHERIDAN, IL 60037-6000**

**SUBMITTED IN PARTIAL FULFILLMENT OF MIPR No. 87-64**



## TABLE OF CONTENTS

	<u>Page</u>
Table of Contents.....	i
List of Tables.....	ii
List of Figures.....	iii
I. INTRODUCTION.....	1
A. Objectives and Background.....	1
B. Data and Methodology.....	1
II. FY 1987 PROFILES OF RA NURSE MEMBERS.....	4
A. Age.....	4
B. Gender.....	5
C. Marital Status.....	5
D. Number of Dependents.....	5
E. Race-Ethnic Status.....	6
F. Highest Educational Level.....	7
G. Years of Service.....	7
H. Rank.....	8
I. Age at Service Entry.....	9
J. Nursing Specialty.....	9
III. PROFILES OF RA NURSE ACCESSIONS AND LOSSES IN FY 1987.....	11
A. Age.....	11
B. Gender.....	12
C. Marital Status.....	12
D. Number of Dependents.....	13
E. Race-Ethnic Status.....	14
F. Highest Educational Level.....	14
G. Years of Service.....	14
H. Rank.....	15
I. Age at Entry.....	16
J. Nursing Specialty.....	17
IV. COMPARISON OF RA AND USAR NURSE PROFILES.....	18
A. Demographic Characteristics.....	18
B. Military Characteristics.....	19
REFERENCES.....	21

DISTRIBUTION LIST

LIST OF TABLES

		<u>Page</u>
TABLE 1	Age, RA and Civilian Nurses, September 30, 1987.....	4
TABLE 2	Gender, RA and Civilian Nurses, September 30, 1987.....	5
TABLE 3	Marital Status, RA and Civilian Nurses, September 30, 1987...	
TABLE 4	Number of Dependents, not Including Member, RA Nurses, September 30, 1987.....	6
TABLE 5	Race-Ethnic Group, RA and Civilian Nurses, September 30, 1987	7
TABLE 6	Highest Educational Level, RA and Civilian Nurses, September 30, 1987.....	8
TABLE 7	Years of Active Duty Service, RA Nurses, September 30, 1987..	8
TABLE 8	Rank, RA Nurses, September 30, 1987.....	9
TABLE 9	Age at Service Entry, RA Nurses, September 30, 1987.....	9
TABLE 10	Nursing Specialty, RA Nurses, September 30, 1987.....	10
TABLE 11	Age, RA Nurse Accessions and Losses, FY 1987.....	11
TABLE 12	Gender, RA Nurse Accessions and Losses, FY 1987.....	12
TABLE 13	Marital Status, RA Nurse Accessions and Losses, FY 1987.....	13
TABLE 14	Number of Dependents, not including Member, RA Nurse Accessions and Losses, FY 1987.....	13
TABLE 15	Race-Ethnic Group, RA Nurse Accessions and Losses, FY 1987...	14
TABLE 16	Highest Educational Level, RA Nurse Accessions and Losses, FY 1987.....	15
TABLE 17	Years of Commissioned Service, RA Nurse Losses, FY 1987.....	15
TABLE 18	Rank, RA Nurse Accessions and Losses, FY 1987.....	16
TABLE 19	Age at Service Entry, RA Nurse Accessions and Losses, FY 1987	16
TABLE 20	Nursing Specialty, RA Nurse Accessions and Losses, FY 1987...	17

LIST OF FIGURES

	<u>Page</u>
FIGURE 1 Data Elements Selected From the Masters and Transactions Files.....	2



## I. INTRODUCTION

### A. Objectives and Background

The goal of this research is to examine the characteristics of nurse officers who were serving on Active Duty as of September 30, 1987, and also to identify and describe those nurses who entered and those who left Active service in fiscal year 1987. By understanding characteristics both of the stock (membership) of current nurses and the flow (accessions and losses), Army Nurse Corps managers can better understand the dynamics of the nurse population and gain insights for policies to meet the Army's need for nurses.

Background information on the national nursing shortage and the labor market for registered nurses may be found in Volume I of this series of reports (Thomas, et al. 1988). Detailed bibliographic references are available in Recruiting and Retaining Army Nurses: An Annotated Bibliography (Roberts and Kocher, 1988), and a discussion of issues relevant to the supply of Army nurses appears in The Reserve Intentions of Active Duty Army Nurses (Kocher and Thomas, 1988).

### B. Data and Methodology

The data used to conduct this research were obtained from the Defense Manpower Data Center (DMDC), and were derived from the Master and Loss files maintained by that organization. Figure 1 lists the data elements selected for use in developing Regular Army (RA) nurse profiles.

The Defense Manpower Data Center obtains U.S. Army personnel data from the SIDPERS databases at the Total Army Personnel Agency (TAPA). Three files which were obtained for nurse officers are described in the sections which follow:

## MILITARY CHARACTERISTICS

Total Active Federal Military Service  
DOD Primary Occupation Group  
Paygrade  
Source of Commission  
Accession Date  
Loss Date (if applicable)  
Loss Designator (if applicable)  
Transaction Date (for losses and accessions)  
Age at Service Entry

## DEMOGRAPHIC CHARACTERISTICS

Education Certification  
State (home address)  
Date of Birth  
Age (checked against date of birth)  
Race-Ethnic Group  
Marital Status  
Number of Dependents  
Gender

Figure 1

Data Elements Selected From the  
Masters and Transactions Files

1. Nurse Membership File

This file contains information on each nurse member of the Regular Army as of September 30, 1987. The nurse membership file contains 4,548 records.

2. Nurse Accessions File

This file contains information on 535 nurses who joined the u.S. Army during fiscal year 1987. Accessions data were obtained from transactions information.

3. Nurse Losses File

This file contains records for 469 Army nurses who left Active Duty during fiscal year 1987.

Both the accessions and losses data sets are probably missing an unknown number of records of officers who entered or left Active service during fiscal year 1987. This is the result of occasional delays in reporting officer transactions to SIDPERS. We have tried to obtain some of these missing records by extracting the appropriate records from the DMDC transaction files for the first three quarters of fiscal year 1988. (Fiscal year 1987 loss and accession transactions which experience reporting delays are reported in later year DMDC transaction files, rather than in DMDC transaction files for fiscal year 1987). However, it is impossible to know for certain the number of missing transactions remaining for fiscal year 1987.

## II. FY 1987 PROFILES OF RA NURSE MEMBERS

This chapter profiles several important demographic and military characteristics of Regular Army nurses (RA) at the end of fiscal year 1987. Since the US Army Recruiting Command must recruit nurses from the civilian sector, we include selected demographic characteristics for employed registered nurses from a 1984 sample survey of 25,294 registered nurses by the US Department of Health and Human Services (US Department of Health and Human Services, 1986).

### A. Age

The mean age for the RA nurses for whom we had age data was 33.3 years. The youngest nurse was 19 and the oldest was 60. There was a slight negative skew in the age data, as the distribution extended further towards younger ages. The vast majority of nurses were between the ages of 22 and 41 (slightly less than 90% were in this range). Table 1 shows the frequency distribution for age, grouped by increments of ten years. Civilian registered nurses had a mean age of 39 years. There were more nurses both under 35 years and over 55 years of age among this civilian population than among RA nurses.

Table 1  
Age, RA and Civilian Nurses<sup>(a)</sup>, September 30, 1987  
(percent)

Age Group (Years)	RA Nurses (n=4,548)	Civilian Nurses <sup>(a)</sup> (n=25,294)
Under 25	13.0	5.8
25-34	42.8	36.9
35-44	38.2	26.8
45-54	5.6	17.7
55+	0.4	12.8
Total	100.0	100.0
Missing	(0)	(400)

<sup>(a)</sup> November 1984

## B. Gender

Table 2 shows the gender distribution for RA nurses as well as for civilian RNs. For RA nurses, 73.7% were female, while 26.3% were male. Only 3.3% of the employed registered nurse population was male in 1984. Hence, male nurses are about eight times more prevalent in the RA than in the civilian sector.

Table 2  
Gender, RA and Civilian Nurses<sup>(a)</sup>, September 30, 1987  
(percent)

<u>Gender</u>	<u>RA Nurses</u> (n=4,548)	<u>Civilian Nurses<sup>(a)</sup></u> (n=25,294)
Male	26.3	3.3
Female	<u>73.7</u>	<u>96.7</u>
Total	100.0	100.0
Missing	(0)	(0)

(a) November 1984

## C. Marital Status

Table 3 indicates that 33.6% of RA nurses were single (never married), 9% were previously married, and slightly less than 58% were married. Employed civilian sector nurses show a somewhat different marital status distribution with over 69% married and only about 16% single (never married).

## D. Number of Dependents

Table 4 shows the frequency distribution for number of dependents, not including the service member (spouses are included in most cases). Almost one-half (46.5%) of the RA nurses had no dependents. This information was not available for civilian sector nurses in a compatible format.



Table 3  
 Marital Status, RA and Civilian Nurses<sup>(a)</sup>, September 30, 1987  
 (percent)

<u>Marital Status</u>	<u>RA Nurses</u> <u>(n=4,546)</u>	<u>Civilian Nurses<sup>(a)</sup></u> <u>(n=25,294)</u>
Single, never married	33.6	15.7
Single, previously married	9.0	15.0
Married	<u>57.4</u>	<u>69.3</u>
Total	100.0	100.0
Missing	(2)	(241)

<sup>(a)</sup>November 1984

Table 4  
 Number of Dependents, not Including Member, RA Nurses  
 September 30, 1987  
 (percent)

<u>Number of Dependents</u>	<u>(n=4,547)</u>
0	46.5
1	18.6
2	13.7
3	13.8
4 or more	<u>7.4</u>
Total	100.0
Missing	(1)

#### E. Race-Ethnic Status

Table 5 indicates the race-ethnic distributions for RA and civilian nurses. Compared with the civilian sector, there are slightly fewer hispanic nurses in the RA. Hispanics accounted for 1.4% of RA nurses, compared with 1.6% of employed civilian nurses. Blacks represented 11.7% of the RA nurses. Blacks comprised less than 5% of the population of civilian RNs.



Table 5  
Race-Ethnic Group, RA and Civilian Nurses<sup>(a)</sup>  
September 30, 1987  
(percent)

<u>Race-Ethnic Group</u>	<u>RA Nurses</u> (n=4,548)	<u>Civilian Nurses<sup>(a)</sup></u> (n=25,294)
White	84.5	90.4
Black	11.7	4.6
Hispanic	1.4	1.6
Other	<u>2.4</u>	<u>3.4</u>
Total	100.0	100.0
Missing	(0)	(288)

(a) November 1984

#### F. Highest Educational Level

Nurses in the RA have a much higher level of education than does the overall population of registered nurses. Unfortunately, 5.5% of the RA nurse membership did not have a record for educational level. Table 6 shows the distribution of highest education level for nurses in the RA membership file for whom a specific highest educational level was recorded. The majority of these nurses had at least a Bachelor's degree, (94.1%). These data imply that if recruiting goals target the Bachelor's degree market, then the market is reduced to about one-third of employed civilian registered nurses.

#### G. Years of Service

The majority (64.3%) of RA nurses had served ten years or less on Active Duty, as shown in Table 7. Those with 11 to 20 years of service comprised about 30% of the total membership.

Table 6  
Highest Educational Level, RA and Civilian Nurses  
September 30, 1987  
(percent)

<u>Level</u>	<u>RA Nurses</u> (n=4,296)	<u>Civilian Nurses<sup>(a)</sup></u> (n=25,294)
Diploma/other	0.1	41.9
Associate's Degree	0.3	25.2
Bachelor's Degree	71.4	26.8
Master's Degree	27.7	5.8
Doctorate	<u>0.5</u>	<u>0.3</u>
Total	100.0	100.0
Missing	(252)	(119)

(a) November 1984

Table 7  
Years of Active Duty Service, RA Nurses  
September 30, 1987  
(percent)

<u>Years of Service</u>	<u>(n=4,548)</u>
0-4	36.7
5-10	27.6
11-15	15.0
16-20	14.7
More than 20	<u>6.0</u>
Total	100.0
Missing	(0)

## H. Rank

Table 8 shows the rank distribution for RA nurses as of 30 September 1987. A total of 36.8% were Lieutenants, while slightly over 50% held the rank of Captain or Major. Nearly 12% had attained the rank of Lieutenant Colonel or Colonel.

Table 8  
Rank, RA Nurses, September 30, 1987  
(percent)

<u>Rank</u>	<u>(n=4,548)</u>
2LT	15.9
1LT	20.9
CPT	29.5
MAJ	21.8
LTC	9.7
COL	<u>2.2</u>
Total	100.0
Missing	(0)

**I. Age at Service Entry**

A majority (61.0%) of RA nurses entered military service between the ages of 19 and 25 as shown in Table 9. Another 30.8% were between 26 and 34 at service entry.

Table 9  
Age at Service Entry, RA Nurses, September 30, 1987  
(percent)

<u>Age Group (Years)</u>	<u>(n=4,548)</u>
18 and under	3.8
19 - 21	15.0
22 - 25	46.0
26 - 29	17.4
30 - 34	13.4
35 and over	<u>4.4</u>
Total	100.0
Missing	(0)

**J. Nursing Specialty**

The RA nurse membership data set contained information about specific nursing specialty in the form of primary MOS. Table 10 shows the numbers of RA

nurses in each of the nursing specialties. About 48% of RA nurse officers were medical-surgical nurses. Nurse anesthetists and operating room nurses are extensively utilized in military settings and their supply is very limited. These two specialties made up 8.0% and 5.4% of all RA nurses, respectively.

Table 10  
Nursing Specialty, RA Nurses, September 30, 1987  
(percent)

<u>Specialty (Primary MOS)</u>	<u>(n=4,548)</u>
66A Administrator	6.6
66B Community Health	3.2
66C Psychiatric	2.9
66D Pediatrics	7.0
66E Operating Room	8.0
66F Nurse Anesthetist	5.4
66G OB-Gyn	6.1
66H Medical-Surgical	47.8
66J Clinical	<u>13.1</u>
Total	100.0
Missing	(0)

### III. PROFILES OF RA NURSE ACCESSIONS AND LOSSES IN FY87

This chapter profiles demographic and military characteristics both of the nurses who entered the Regular Army Nurse Corps and those who left during fiscal year 1987. Frequency distributions are given for the same characteristics profiled in the previous membership chapter. A comparison of these "flow" values with the "stock" values in Chapter II will provide a measure of changes in the makeup of the Active Duty membership of the Army Nurse Corps.

#### A. Age

The mean age for the Regular Army nurses who entered Active service during fiscal year 1987 was 26.4 years. The youngest RA nurse accession was 21 years old, while the oldest was 43. There was a pronounced negative skew in the age data, as the distribution extended towards younger ages. Approximately 75% of nurse accessions were between the ages of 21 and 29. Table 11 shows the frequency distribution for age, grouped by increments of ten years.

Table 11  
Age, RA Nurse Accessions and Losses, FY 1987  
(percent)

<u>Age Group</u> <u>(Years)</u>	<u>Accessions</u> <u>(n=535)</u>	<u>Losses</u> <u>(n=469)</u>
Under 25	53.8	3.2
25 - 34	36.7	51.0
35 - 44	9.5	33.6
45 - 54	0.0	9.9
55+	0.0	2.3
Total	100.0	100.0
Missing	(0)	(0)

The mean age for nurses who left the RA during fiscal year 1987 was 34.8

years. The youngest RA nurse loss was 23 and the oldest was 57. There was a noticeable negative skew in the age data, as the distribution extended towards younger ages. The vast majority of nurse losses were between the ages of 23 and 40 (slightly more than 75% were in this range).

### B. Gender

RA accessions during FY87 were 20.2% male and 79.8% female, as shown in Table 12. Of the nurse losses to the RA during FY87, 73.1% were female, while 26.9% were male.

Table 12  
Gender, RA Nurse Accessions and Losses, FY 1987  
(percent)

<u>Gender</u>	<u>Accessions</u> <u>(n=535)</u>	<u>Losses</u> <u>(n=469)</u>
Male	20.2	26.9
Female	<u>79.8</u>	<u>73.1</u>
Total	100.0	100.0
Missing	(0)	(0)

### C. Marital Status

Table 13 indicates that over 62% of nurse accessions to the RA were single (never married) and 31.6% were married, while only 6.2% were single (previously married). Almost 60% of RA nurse losses were married, and only about 30% were single (never married).



Table 13  
Marital Status, RA Nurse Accessions and Losses, FY 1987  
(percent)

<u>Marital Status</u>	<u>Accessions</u> (n=534)	<u>Losses</u> (n=469)
Single, never married	62.2	29.9
Single, previously married	6.2	10.4
Married	<u>31.6</u>	<u>59.7</u>
Total	100.0	100.0
Missing	(1)	(0)

**D. Number of Dependents**

Table 14 shows the frequency distribution for number of dependents for RA nurse accessions, not including the service member. Over 70% of RA nurse accessions had no dependents, while only 2.3% of RA accessions had four or more dependents. RA losses who had no dependents comprised 42.5% of these departing nurses. Only 8.7% of RA losses had four or more dependents.

Table 14  
Number of Dependents, not Including Member, RA  
Nurse Accessions and Losses, FY 1987  
(percent)

<u>Number of Dependents</u>	<u>Accessions</u> (n=534)	<u>Losses</u> (n=469)
0	70.6	42.5
1	14.6	23.0
2	6.7	12.6
3	5.8	13.2
4 or more	<u>2.3</u>	<u>8.7</u>
Total	100.0	100.0
Missing	(1)	(0)

### E. Race-Ethnic Status

The race-ethnic distribution of RA nurse accessions is shown in Table 15. Blacks represented 12.3% of RA accessions compared to .9% for hispanics. The race-ethnic distribution for nurse losses shows almost identical figures as for accessions. Blacks represented 12.2%, while hispanics made up .9% of nurse losses to the RA.

Table 15  
Race-Ethnic Group, RA Nurse Accessions and Losses, FY 1987  
(percent)

<u>Race-Ethnic Group</u>	<u>Accessions</u> <u>(n=535)</u>	<u>Losses</u> <u>(n=469)</u>
White	83.9	84.4
Black	12.3	12.2
Hispanic	0.9	0.9
Other	<u>2.8</u>	<u>2.6</u>
Total	100.0	100.0
Missing	(0)	(0)

### F. Highest Educational Level

Table 16 shows the distribution of highest educational level for RA accessions. Unfortunately, slightly over 44% of the records for RA nurse accessions for whom data were available did not have valid information on highest degree. Over 99% of RA nurse accessions had at least a Bachelor's degree. Only 15% of RA nurse losses had less than a Bachelor's degree, while holders of Bachelor's and Master's degrees accounted for over 98% of losses.

### G. Years of Service

Table 17 shows the length of service distribution for nurse losses from

the RA for FY1987. Almost 36% of these exiting nurses had served less than five years. Another 31.6% were leaving after five to 10 years. About 14% had completed 20 or more years of service.

Table 16  
Highest Educational Level, RA Nurse Accessions and Losses, FY 1987  
(percent)

<u>Level</u>	<u>Accessions</u> (n=299)	<u>Losses</u> (n=461)
Associate's Degree (or less)	0.3	1.5
Bachelor's Degree	98.7	76.2
Master's Degree	1.0	22.1
Doctorate	<u>0.0</u>	<u>0.2</u>
Total	100.0	100.0
Missing	(236)	(8)

Table 17  
Years of Commissioned Service, RA Nurse Losses, FY 1987  
(percent)

<u>Years of Service</u>	<u>(n=469)</u>
0 - 4	35.7
5 - 10	31.6
11 - 15	10.7
16 - 20	6.8
20 or more	<u>14.1</u>
Total	100.0
Missing	(0)

#### H. Rank

Table 18 shows the rank distribution for nurses who entered and those who left the RA during fiscal year 1987. Almost 88% of RA accessions were Second Lieutenants. The largest number of RA losses were Captains (39.2%). This group was closely followed by First Lieutenants who comprised 31.3% of losses.

Table 18  
Rank, RA Nurse Accessions and Losses, FY 1987  
(percent)

<u>Rank</u>	<u>Accessions</u> (n=535)	<u>Losses</u> (n=469)
2LT	87.5	2.8
1LT	7.1	31.3
CPT	4.9	39.2
MAJ	0.6	12.4
LTC	0.0	11.9
COL	<u>0.0</u>	<u>2.3</u>
Total	100.0	100.0
Missing	(0)	(0)

**I. Age at Entry**

The age at service entry distribution for nurse accessions and losses is shown in Table 19. Nurse losses display a different pattern of entry age compared to accessions. Over 14% of losses entered the service when 21 or younger while only 6% of accessions were this young at entry. The largest percentage of entrants for both accessions and losses were between 22 and 25 years old.

Table 19  
Age at Service Entry, RA Nurse Accessions and Losses, FY 1987  
(percent)

<u>Age at Entry</u> (Years)	<u>Accessions</u> (n=535)	<u>Losses</u> (n=469)
18 and under	0.0	2.1
19 - 21	6.0	12.0
22 - 25	63.0	45.8
26 - 29	11.2	20.1
30 - 34	12.9	13.2
35 and over	<u>6.9</u>	<u>6.8</u>
Total	100.0	100.0
Missing	(0)	(0)

## J. Nursing Specialty

The data set contained information about specific nursing specialty in the form of primary MOS. Table 20 shows the numbers of RA nurses in each of the nursing specialties (primary MOS). Almost 50% of RA nurse accessions were clinical nurses. The majority (49.9%) of RA nurses exiting Active Duty were medical-surgical nurses.

Operating room nurses and nurse anesthetists together made up only 2.1% of accessions while they accounted for 15.1% of losses. These two nursing specialties are in great demand in the military health care environment.

Table 20  
Nursing Specialty, RA Nurse Accessions and Losses, FY 1987  
(percent)

<u>Specialty</u>	<u>Accessions</u> <u>(n=535)</u>	<u>Losses</u> <u>(n=469)</u>
Administrator	25.4	3.4
Community Health	0.0	2.6
Psychiatric	0.6	7.5
Pediatrics	0.2	8.7
Operating Room	1.5	7.2
Nurse Anesthetist	0.6	7.9
OB/Gyn	0.9	7.0
Medical-Surgical	21.7	49.9
Clinical	<u>49.2</u>	<u>5.8</u>
Total	100.0	100.0
Missing	(0)	(0)



#### IV. COMPARISON OF RA AND USAR NURSE PROFILES

Volume I of this series of reports (Thomas, et al. 1988) describes the characteristics of USAR nurse members, losses and accessions. A comparison of these Reserve nurses with the Active Duty nurse officers profiled in this report provides insight into the progression of a prior service Reserve nurse through his or her Army career. It also affords a more complete picture of the Army Nurse Corps than would be gleaned from either component.

##### A. Demographic Characteristics

Reserve nurses were older, on the average, than Active Duty Army nurses (37.5 years as compared with 33.3 years). The mean age for employed civilian nurses was somewhat greater than either group of military nurses at about 39 years. RA accessions were substantially younger than USAR accessions (26.4 years and 33.3 years, respectively). Losses from the RA and USAR were more similar in average age (34.8 years and 35.7 years, respectively).

Only 3.3% of the employed civilian registered nurses in 1984 were male while almost 23% of Reserve nurses and just over 26% of RA nurses were male. Accessions and losses for both the USAR and RA were similar to their respective memberships in gender distribution.

About the same percentage (58%) of the nurses in the RA and the USAR were married. This was somewhat lower than the percent married for employed civilian nurses (69%). RA accessions were much less likely to be married than USAR accessions (31.6% as compared with 53.9%). Losses from the RA were almost 60% married while losses from the USAR were only 55% married.

About the same percentage of RA and USAR nurses had no dependents other



than the service member (46.5% and 42.0%, respectively). RA accessions were much more likely to be without dependents (70.6%) than were USAR nurse accessions (42.0%). Losses to both groups were quite similar in this respect (42.5% and 38.5%, respectively).

USAR nurses were more likely to be minority group members than were RA nurses (whites made up 77.2% and 84.5% of these groups, respectively). Both blacks and hispanics were more strongly represented among the USAR than the RA membership. Employed civilian nurses were over 90% white. Both accessions and losses for the RA were about 84% white, while accessions and losses to the USAR were 76.5% and 83.4% white, respectively.

Both RA and USAR nurses had achieved a high educational level with 77.5% of USAR members and 94.1% of RA members holding at least a Bachelor's degree. Only 32.9% of employed civilian RNs had reached this level of education. Over 99% of RA accessions held at least a Bachelor's degree while 62.4% of entering USAR nurses had attained this degree. Almost 83% of losses to the USAR held a Bachelor's degree as did 98.5% of exiting RA nurses.

## **B. Military Characteristics**

The rank structure for RA and USAR nurses was very similar for all paygrades above Lieutenant. Second Lieutenants made up about 16% of Active duty nurses but were almost 27% of Reserve nurse officers. First Lieutenants were more numerous (20.9%) among RA nurses than among USAR nurses (17.6%).

Accessions to both the RA and USAR were predominantly of low rank. Reserve accessions, which included many prior Active service nurses, were more likely to hold a rank about Second Lieutenant (38.2%) than were RA nurses (12.5%).

Losses to the USAR were largely from the lowest paygrades (62.1% below

Captain) while RA nurses exiting Active service were more typically of higher rank (only 34.1% below Captain).

The distributions of RA and USAR nurses by nursing specialty (primary MOS) both show medical-surgical nursing to be the most common specialty (47.8% and 60.0%, respectively). Operating room nurses and nurse anesthetists together made up about 13% of RA and USAR memberships.

Accessions to the RA and USAR showed very different specialty distributions. Only 21.7% of entering RA nurses were medical-surgical nurses while 59.9% of USAR nurses fell in this category. Nurse anesthetists and operating room nurses together were more strongly represented among entering USAR nurses (7.3%) than among entering RA nurses (2.1%).

Losses to both components were predominantly medical-surgical nurses (49.9% for RA and 53.4% for USAR). Nurse anesthetists and operating room nurses represented 15.1% of exiting RA nurses and 15.0% of exiting USAR nurses.

Several military characteristics were available for only the RA or USAR and it was not possible to compare the two groups of nurses on the basis of these measures. These characteristics included years of service, source of commission, training category, military education, unit of assignment region, and age at service entry.

The data available for RA and USAR nurses are inadequate for a comprehensive comparison of these two groups. Many data fields, especially those for Reserve officers are characterized by inconsistent entries and missing information. A more complete personnel information system would aid in the development of recruiting and retention policy for these health care professionals who are in such great demand in both military and civilian settings.

## REFERENCES

Kocher, K. and G. Thomas (1988), The Reserve Intentions of Active Duty Army Nurses. Naval Postgraduate School Technical Report #NPS-54-88-014. Monterey, CA : Naval Postgraduate School.

Roberts, B. and K. Kocher (1988), Recruiting and Retaining Army Nurses: An Annotated Bibliography. Naval Postgraduate School Technical Report #NPS-54-88-015. Monterey, CA : Naval Postgraduate School.

Thomas, G., K. Kocher, T. Moore and B. Roberts (1988), 1987 U.S. Army Nurse Membership, Accession and Loss Profiles: Volume I, Reserves. Naval Postgraduate School Technical Report #NPS-54-88-018. Monterey, CA : Naval Postgraduate School.



## DISTRIBUTION LIST

<u>Agency</u>	<u>No. of Copies</u>
Defense Technical Information Center Cameron Station Alexandria, VA 22314	2
Dudley Knox Library, Code 0142 Naval Postgraduate School Monterey, CA 93943-5000	2
Office of Research Administration Code 012 Naval Postgraduate School Monterey, CA 92943-5000	1
Department of Administrative Sciences Library Code 54 Naval Postgraduate School Monterey, CA 93943-5000	1
Library, Center for Naval Analyses 4401 Ford Avenue Alexandria, VA 22302-0268	1
HQ USAREC PAE-RS Bldg. 48-C Fort Sheridan, IL 60037-6000 Attn. MAJ E. Stanton	2
HQ USAREC RO-N Bldg. 48-EF Fort Sheridan, IL 60037-6000 Attn: Col. S. Christophe	6
U.S. Total Army Personnel Agency ATTN: DAPC-OPH-AN (LTC D. Clark) 200 Stovall Street, Rm. 9N47 Alexandria, VA 22332-0417	1
Adj. Prof. Benjamin Roberts, Code 54Ro Administrative Sciences Department Naval Postgraduate School Monterey, CA 93943-5000	2
George W. Thomas, Code 54Te Associate Professor of Economics Naval Postgraduate School Monterey, CA 93943-5000	12
Kathryn Kocher, Code 54Kk Administrative Sciences Department Naval Postgraduate School Monterey, CA 93943-5000	10

H. Wallace Sinaiko, Program Director 1  
Manpower Research and Advisory Service  
Smithsonian Institution  
801 N. Pitt Street  
Alexandria, VA 22314

Col. Harry J. Thie 1  
Office of Assistant Secretary of Defense  
(Manpower and Reserve Affairs)  
The Pengaton 2E591  
Washington, DC 20310

Bette Mahoney 1  
Chief, Survey Division  
Defense Manpower Data Center  
1600 N. Wilson Blvd., Suite 400  
Arlington, VA 22209

LTC B. J. Thornburg 1  
HQ FORSCOM  
Attn: FCJ1-RTS  
Ft. McPherson, GA 30330-6000

Dr. Jules J. Borack 1  
Chief of Naval Operations  
OPS-01 SA  
Arlington Annex  
Washington, DC 20350-2000





DUDLEY KNOX LIBRARY



3 2768 00336449 8