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Early Career Training and Attrition Trends: Enlisted Street-to-Fleet Report 2003

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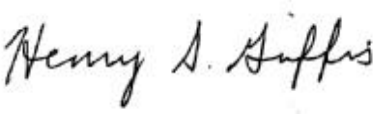

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CNA's annotated briefings are either condensed presentations of the results of formal CNA studies that have been further documented elsewhere or stand-alone presentations of research reviewed and endorsed by CNA. These briefings represent the best opinion of CNA at the time of issue. They do not necessarily represent the opinion of the Department of the Navy.

Executive Summary

N81 asked CNA to examine time-to-train (TTT), timing of training, and attrition trends during initial skills training. Policy-makers are concerned with attrition during initial training, the length of the training pipeline, and establishing baseline trends to evaluate current and future training initiatives. To examine these trends, we track FY93-FY01 accessions from the street, through bootcamp, through initial skills training, and to the fleet using the Enlisted Street-to-Fleet (ESTF) database. For this annotated briefing, we present ESTF data updated with accession, personnel, and training data through FY03.

In 1997, the Navy implemented a set of training reengineering initiatives aimed at shortening initial schoolhouse training and cutting the time recruits spend not under instruction (NUI). Previous CNA analysis suggests that the training improvements made since the FY97 accessions had leveled off with the FY00 accessions. For the FY01 accessions, we find improvements in training trends, including a decrease in time to the fleet. The decrease in time to the fleet is most significant for 4YO and 6YO FY01 accessions.

In addition, this report includes information on the training trends of ratings undergoing training initiatives, the timing of A-school training, and participation rates in self-paced, computer-aided A-school courses:

- We present training data for the Information Systems Technician (IT), Mess Management System (MS) ratings, and Aerographer's Mate (AG), which have undergone training reevaluation and participated in training pilot programs. These training trends will enable N81 to monitor the progress of various initiatives meant to improve schoolhouse training for ITs, MSs, and AGs.

- Whereas all rate-promised recruits receive A-school training before reaching the fleet, less than 6 percent participate in post-fleet A-school training. We don't find evidence that the timing of initial A-school training has been postponed until after recruits reach the fleet.

- As a proxy for e-learning initial skills training, we examine participation in self-paced, computer-aided A-school courses. The training data source for the ESTF database collects information on how and by whom formal training courses are taught. We find that very few recruits participate in A-school training that seems to be based on e-learning (self-paced and computer-aided instruction). However, participation in these courses is increasing, particularly for 6YOs.

Along with improvements in time to the fleet, we found a recent decrease in pre-fleet attrition. For all obligation lengths, pre-fleet attrition has been decreasing for the last three accession cohorts. With the FY00 accessions, the bootcamp attrition rate declined to 16.3 percent from a 9-year high of 18.4 percent for FY99 accessions. For the FY01 accessions, it declined further to a 5-year low of 14.0 percent. In addition, post-bootcamp

attrition for FY01 accessions was 8.6 percent, a decrease from the 10-percent post-boot-camp attrition of the FY00 accessions. Data on bootcamp attrition for the FY02 accessions suggest that the trend of declining bootcamp attrition is likely to continue. This is encouraging because bootcamp attrition accounts for the majority of 3YO, 4YO, and 5YO non-Gendet pre-fleet attrition.

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CNA Support to N81

N81 asked CNA to update the Enlisted Street-to-Fleet database and examine initial training trends. The flow of Sailors to the fleet depends on the number of Sailors who make it through bootcamp and how much time is spent in training. Policy-makers are concerned with attrition during initial training, the length of the training pipeline, and establishing baseline data trends to evaluate current and future training initiatives. To examine these trends, we tracked recruits' early career histories using the Street-to-Fleet database.

In 1997, the Navy implemented a set of training reengineering initiatives aimed at shortening initial schoolhouse training and cutting the time recruits spend not under instruction (NUI). Previous CNA analysis suggests that the Navy has succeeded in improving the delivery of recruits to the fleet [1, 2], but the most recent analysis suggests that the benefits from training reengineering are leveling off [3]. This annotated briefing provides more description of the training and attrition trends following the beginning of training reengineering.

As with previous analysis, we examine initial skills training and attrition, looking at all contract lengths, as well as training data by rating categories. We also present baseline trends to assist in the evaluation of recent training initiatives. We examine trends by rating groups that fall within the recently created Navy learning centers. We examine detailed training data for the Information Systems Technician (IT), Mess Management Systems (MS) and Aerographer's Mate (AG) ratings, which have undergone training reevaluation and participated in training pilot programs.

Annotated Briefing Outline

- **Introduction**
- ESTF database
- Months to the fleet
- Breakdown of how time to the fleet is spent
- Timing of temporary/PSI (programmed school input) duty and initial skills training
- Indicators of electronic learning (e-learning)
- Pre-fleet attrition rates
- Conclusions

This slide presents the organization for this annotated briefing. We first introduce the main and emerging enlisted street-to-fleet issues. The introduction includes a summary of our overall findings, and it identifies ratings with significant improvements in training trends. After that, we explain the Enlisted Street-to-Fleet (ESTF) database, discuss which cohorts have been added with the most recent ESTF update, and present the number of accessions per year.

We then turn to the main four sections of the annotated briefing:

(1) How long it takes non-General-Detail (non-Gendet) recruits to reach their first fleet assignments

(2) How recruits spend their time getting to the fleet

(3) A brief discussion of non-traditional initial training pipelines

(4) A presentation of pre-fleet attrition rates—the percentage of recruits who leave the Navy before reaching the fleet.

The non-traditional training section includes a discussion of Gendet and non-Gendet recruits' participation in temporary duty assignment and post-fleet A-school. The training sections conclude with a brief evaluation of indicators of e-learning training. Each section includes trends for the periods before and during training reengineering. We also delineate training trends by obligation length and learning center. We conclude with a discussion of our findings.

Main Issues

- How long does it take a recruit to reach the fleet?
- How is time to the fleet spent?
  - How much of this time is spent under instruction?
- What percentage of recruits reach the fleet?
  - How many recruits attrite during bootcamp?
  - How many recruits attrite after bootcamp and before reaching the fleet?

The main training trends we examine are how long it takes to reach the fleet, whether time spent training is under instruction (UI) or idle (i.e., not under instruction, NUI), and pre-fleet attrition. By examining these initial training trends, we may identify potential problem areas, help predict future training requirements, or provide insights for exploring alternative training philosophies.

These metrics also illustrate whether training trends have been consistent with training reengineering initiatives. In 1997, the Navy began a set of training reengineering initiatives to shorten initial schoolhouse training. To focus on how training trends have changed since training reengineering began and since the last CNA ESTF report [3], we compare FY01 cohorts with the FY97 and FY00 accession cohorts.

Our analysis does not provide direct proof of the success of training reengineering because we have not linked the personnel trends to specific reengineering initiatives. We don't control for other factors, such as AFQT, gender, or age at entry, and their potential influences on the street-to-fleet process. Thus, the evidence of training reengineering is indirect.

New and Emerging Initial Training Issues

- What are the current trends for the rating groups that correspond with the Navy's learning centers?
- What are the training trends for three ratings undergoing training reevaluation?
- What percentage of recruits spend time in temporary duty?
- What percentage of recruits receive A-school training after reaching the fleet?
- Can we include e-learning in the ESTF database?

This slide presents the new and emerging issues addressed in this annotated briefing. Since 1997, the Navy has undergone a number of training initiatives, including training reengineering. In 2001, Task Force for Excellence Through Commitment to Education and Training (Task Force EXCEL) initiatives began. Some of those initiatives include restructuring the responsibility of ratings to designated Navy learning centers. We present time to the fleet and training baseline trends for the rating groups that correspond to the learning centers. Another set of initiatives was to incorporate civilian and corporate training methods. We examine in detail the training trends of the IT, MS, and AG ratings, which have undergone a reevaluation of their training programs to include civilian certification programs. Sailors from these three ratings were also some of the first ratings to participate in the pilot version of the online Sailor Continuum career management tool aimed to assist Sailors in tracking their future careers in the Navy.

The final training issue we examine is non-traditional timing of training and non-traditional training methods. We examine rates of participation in temporary duty before reaching the fleet as an indication of the amount of "stashing" that occurs. We then examine Gendet and non-Gendet participation rates in A-school training that is received after reaching the fleet. We also discuss how much e-learning training information is in the ESTF database.

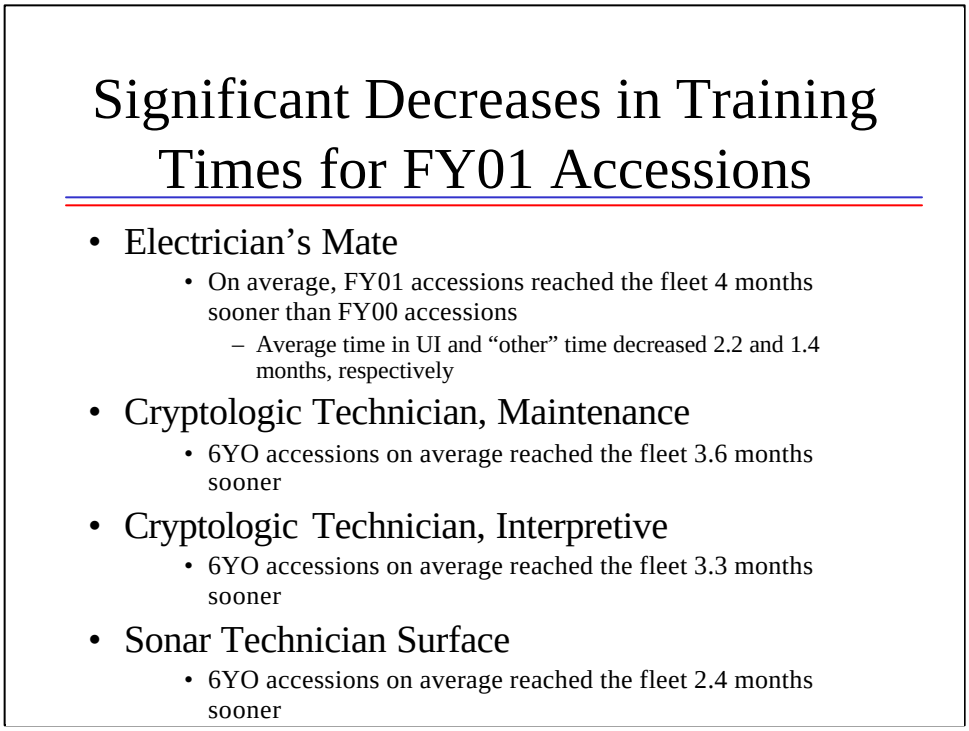
Summary of Training Trends

- FY01 accessions on average reached the fleet in 11 months
  - An average of 7.8 months were spent UI
- Recent improvements in training trends
  - 0.9-month decrease in average time to the fleet
  - For FY01 accessions, less time spent on average in UI and NUI
    - For 4YOs and 6YOs
- Vast majority of A-school training occurs before reaching the fleet
- Capabilities to capture e-learning exist

This slide summarizes some of the training trends that are presented in more detail later on. Following the introduction of training reengineering, numerous training improvements occurred, including a reduction in average time spent getting to the fleet for accessions who reached the fleet. The last CNA ESTF analysis presented training data suggesting that training improvements since the FY97 accessions have leveled off or were maintained with only slight improvements. We found that those FY01 accessions who have reached the fleet have done so more quickly than FY00 accessions. The decrease in time to the fleet is from less time spent UI and NUI. These training improvements are most significant for 4-year- and 6-year-obligation (4YO and 6YO) non-Gendet recruits.

Whereas all rate-promised recruits receive A-school training before reaching the fleet, less than 6 percent participate in post-fleet A-school training. We also found no discernible trend in post-fleet A-school participation.

Currently, the ESTF database includes, for A-school and follow-on courses, information on whether courses are self- or group-paced and information on whether the course was computer managed, based on instructional support, or instructor managed. If the database identifies a course as "self-paced, computer-aided," it suggests that the course is primarily based on e-learning. We find that few A-school participants take self-paced and computer-aided courses, but the numbers are increasing.



Pre-fleet training time for the FY01 accessions suggests sustained improvements in time to the fleet since the FY98 accessions and the beginning of training reengineering. More recently, for those who reached the fleet, time to the fleet has decreased by 0.9 month, or 8 percent, from the FY00 to the FY01 accession cohort. This slide describes three of the many ratings in which FY01 accessions reached the fleet sooner than FY00 accessions. On later slides, we present training trends for all non-Gendet recruits. These ratings were selected from ratings with 50 or more recruits.

The decrease in time to the fleet for the Cryptologic Technician, Maintenance (CTM), Cryptologic Technician, Interpretive (CTI), and Sonar Technician, Surface (STG) 6YOs contributed to improvements in time to the fleet for the Cryptology and Surface Combat Systems rating groups. In addition, for these three ratings, time to the fleet has decreased since training reengineering began with the FY98 accessions. The reduction in time to the fleet for the 6YO CTM recruits is a recent improvement: from 15.2 months for the FY97 accessions to 14.7 and 11.1 months for the FY00 and FY01 accessions, respectively. The same is true for the Electrician's Mate (EM) rating, where recruits took longer to reach the fleet for FY00 accessions than for FY97 accessions. Time to the fleet has been steadily declining for 6YO STG recruits, from 23.3 months for the FY97 accessions to 16.3 months for the FY01 accessions. The decline in time to the fleet for 6YO CTIs has been a consistent decline, from 37 months for the FY97 accessions to 24 months for the FY01 accessions.

Summary of Pre-Fleet Attrition Trends

- Of FY01 non-Gendet accessions, 75 percent reached the fleet
- Decrease in pre-fleet attrition
  - From FY99 to FY01 accessions
    - Bootcamp attrition decreased to 14 percent from 18.4 percent
    - Post-bootcamp attrition decreased to 8.6 percent from 10 percent
  - Decline for all obligation lengths

This slide summarizes the main findings on pre-fleet attrition trends. Along with improvements in time to the fleet from FY00 to FY01 accessions, the highest percentage of recent accessions have made it to the fleet since the FY96 accessions. For all obligation lengths, pre-fleet attrition has been decreasing for the last three accession cohorts. With the FY00 accessions, the bootcamp attrition rate declined to 16.3 percent from a 9-year high of 18.4 percent for FY99 accessions. For the FY01 accessions, it declined further to 14.0 percent. Post-bootcamp attrition also declined to 8.6 percent, a decrease from the 10- percent post-bootcamp attrition of the FY00 accessions.

Bootcamp attrition for the FY02 accessions suggests that the declining trend is likely to continue. Attrition rates fell to 9.9 percent for FY02 accessions. This is encouraging because bootcamp attrition accounts for the majority of 3YO, 4YO, and 5YO non-Gendet pre-fleet attrition.

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2003 Enlisted Street-to-Fleet Database

- Tracks recruits from bootcamp to the fleet
- All non-prior-service accessions since FY90
- Personnel data from EMR file
  - Career events, FY90 through FY03
- Accession data from DMDC and CNRC
  - Cohorts, FY90 through FY03
- Training data from NITRAS
  - Courses taken, FY93 through FY03

The source for this annotated briefing is CNA's Enlisted Street-to-Fleet database. This database combines the personnel, accession, and training records of every Navy recruit. Each recruit is followed from accession through bootcamp, through initial schooling, and into the fleet.

The personnel data, which come from BUPERS' Enlisted Master Record file (EMR), include rate obtained, date of full-duty status, and, if applicable, date of and reason for separation. The personnel data also include each recruit's demographic information. The current version of ESTF contains personnel data through September 2003.

The accession data, which come from the Defense Manpower Data Center (DMDC) and Commander Naval Recruiting Command (CNRC), include the rating, program, and length of contract under which each recruit enlisted. The current ESTF version contains all non-prior-service accessions who entered the Navy from FY90 through FY03.

The training data, which come from the Navy Integrated Training Resources and Administration System (NITRAS), contain a historical record of the individual courses each recruit took. For each course, we know whether the recruit passed or failed. The data also indicate the time each recruit spent under instruction, awaiting instruction, awaiting transfer, or in an interrupted instruction status. The current ESTF version contains data on courses that were completed between FY93 and FY03.

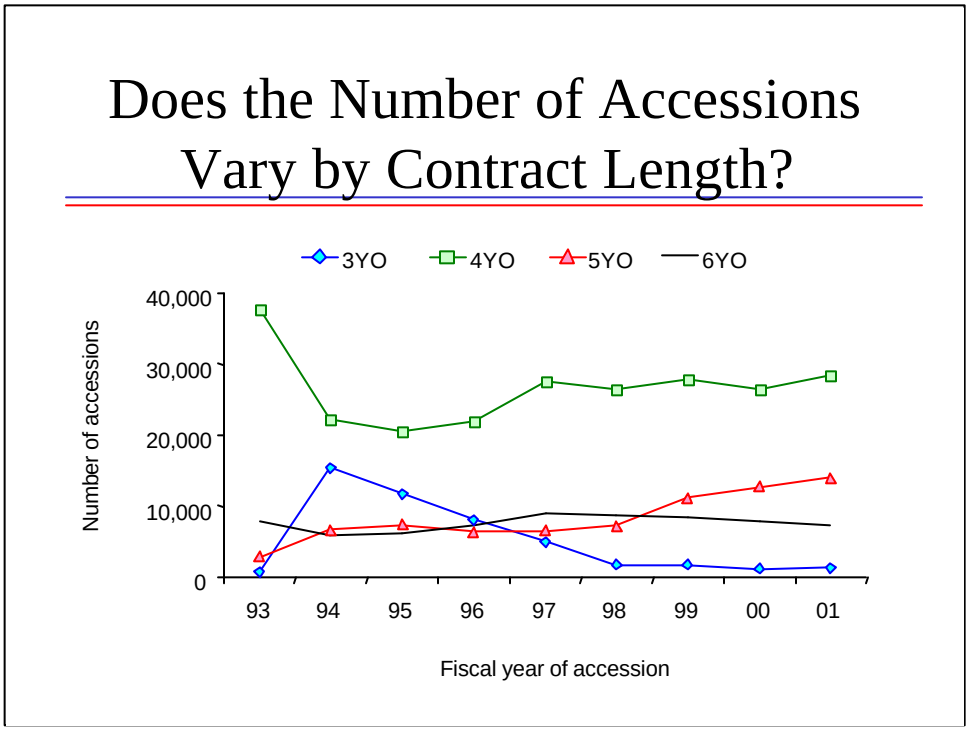
New Data

- Accessions
  - FY01 accession cohort
  - FY02 accession cohort for looking at bootcamp attrition
- Career Events
  - Fleet arrivals through September 2003
  - Attrition through September 2003
  - Training received through September 2003

This update of the ESTF database allows us to track training and pre-fleet attrition for an additional accession cohort and to track recruits further in their careers.

What cohorts we track depends on the length of time since accession and the percentage of the cohort still training at the end of the data period. The data include FY01 accession cohorts for all obligation lengths. As of September 2003, 2.4 percent of all non-Gendet FY01 accessions had yet to reach the fleet. The 6YO FY01 cohort was included because only 6.4 percent were still in training at the end of the data period. These caveats on FY01 accession status apply to all annotated briefing charts that present data on non-Gendet accessions. Data on FY02 accessions were included only when discussing bootcamp attrition.

A backup slide details the status of FY01 accessions for each obligation length as of June 2003. Although we have data from all FY02 and some FY03 recruits, not enough time has elapsed to track any significant portion of their pre-fleet training—except for FY02 bootcamp attrition.



This figure shows, by obligation length, the number of accessions from FY93 through FY01. Over this period the number of accessions decreased from 62,117 accessions in FY93 to 50,944 accessions in FY01. This drop was from a decrease in the number of accessions with 2-, 3-, and 4-year-obligation accessions. The number of 6YO accessions has fluctuated slightly during the period, but has stayed close to the FY93 and FY01 accession totals of 7,865 and 7,231, respectively. The only group that has increased in size is accessions with 5-year obligations—from 2,749 accessions in FY93 to 13,902 accessions in FY01.

We did not include accessions missing obligation length or with 2-year obligations due to small numbers. The number of accessions missing obligation length has dropped from 1,073 FY93 accessions to no FY01 accessions. The number of accessions with 2-year obligation lengths went from 12,030 FY93 accessions to only 152 FY01 accessions.

The text of this annotated briefing focuses on accessions who joined the Navy during and following training reengineering, which corresponds to the post-drawdown era. During this period, the 5YO accession cohort is the only obligation group with significant changes in accession totals. Note that all accessions are presented on this chart, but many of the initial training trends presented in this annotated briefings are for only those accessions who have reached the fleet.

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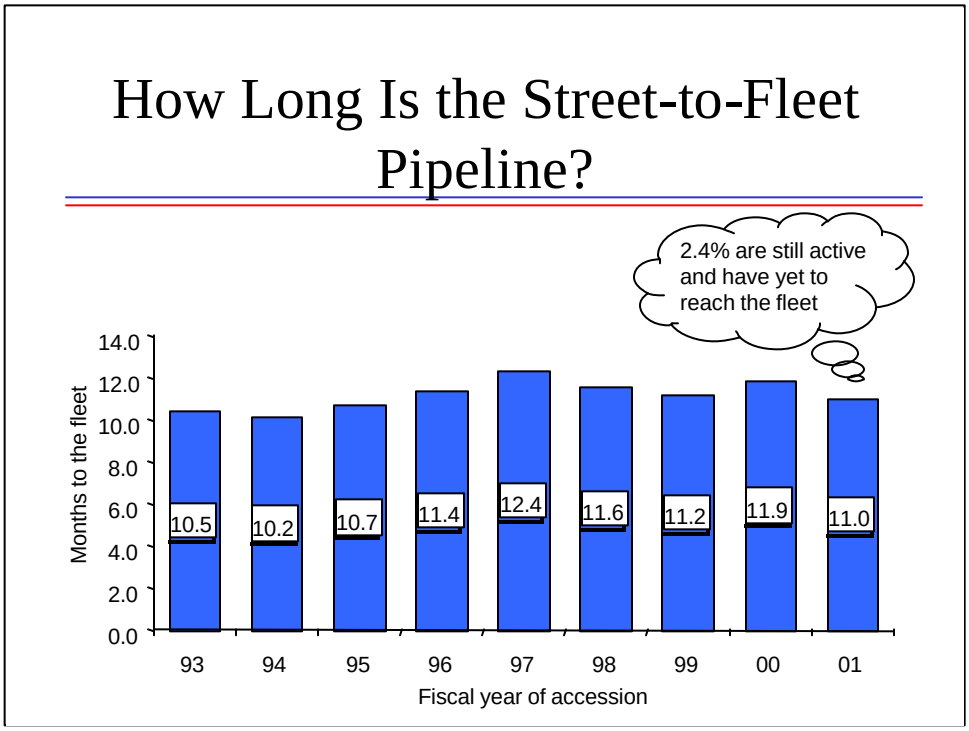
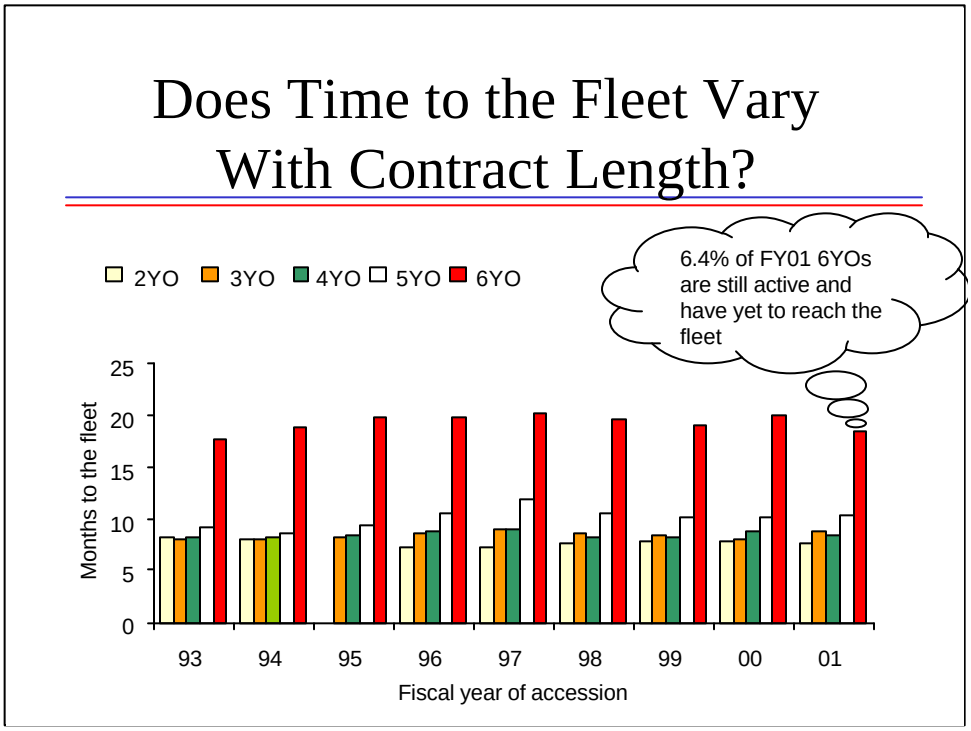
The next few slides show time to the fleet for all non-Gendet recruits, and then by obligation length and rating group.



First, we determine how long it takes, in months, for the average non-Gendet recruit to reach the initial fleet assignment. Before the introduction of training reengineering in 1997, time to the fleet increased by about 2 months. Since the FY97 accession cohort, time to the fleet has decreased with each successive accession cohort except FY00. With the FY01 accessions, time to the fleet decreased 0.9 month to an average of 11 months. Compared with 12.4 months for FY97 accessions, FY01's 11 months to reach the fleet translates into 2,980 additional non-Gendet work-years available to the fleet.

These data include only recruits who went to A-school and reached the fleet as non-Gendets; we do not count pre-fleet attrites or Sailors who reached the fleet as Gendets—whether they enlisted as Gendets or were later reclassified as Gendets. Recruits who enlisted as Gendets but were rated before reaching the fleet are included. Most slides in this annotated briefing show information for the non-Gendet recruits who reached the fleet; the few charts and tables that include Gendets and recruits who have not yet reached the fleet indicate that alternative samples were used.

With each year of additional data, reported time to the fleet of past accessions may change slightly as more or all recruits reach the fleet. We have made an effort to present years in which the vast majority has either reached the fleet or attrited from the Navy before completing training. This chart includes all non-Gendet recruits who have reached the fleet. We include the FY01 accession cohort because only 2.4 percent of all accessions have yet to reach the fleet.



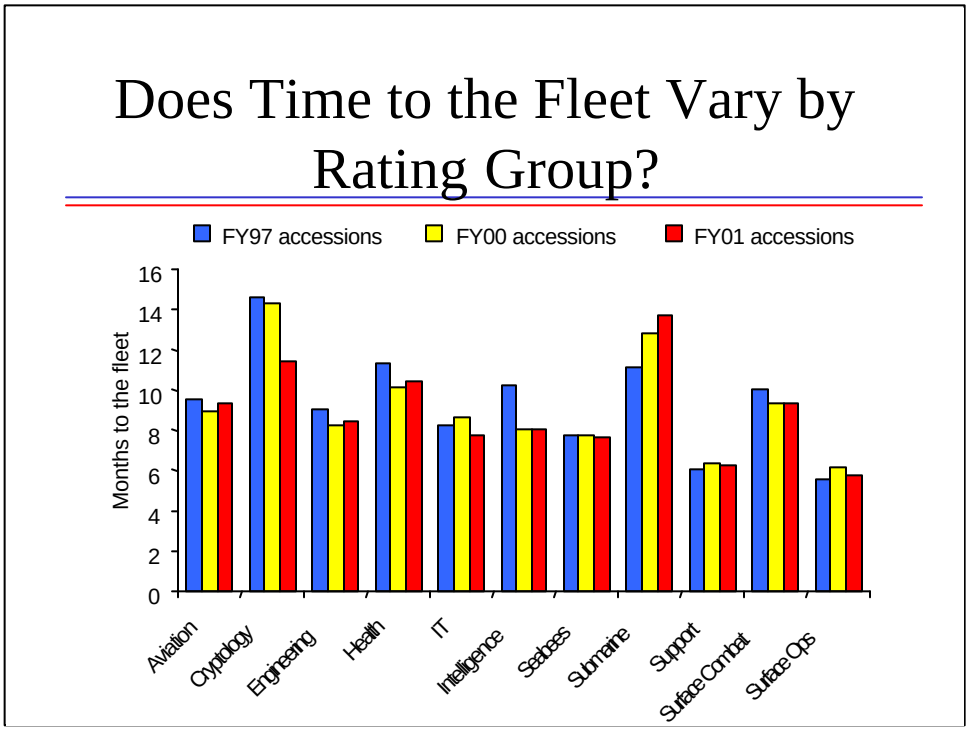
Time to the fleet is a function of how much training recruits receive before getting to the fleet. A recruit's initial training program depends on selected rating and length of contract (or initial obligation). The Navy usually requires longer obligations for ratings that have longer pipelines. Thus, variation in time to the fleet by obligation length could possibly be reflecting variation in rating composition. This chart shows the average number of months it takes to reach the fleet for recruits with different obligation lengths, by fiscal year of accession.

Time to the fleet is longest for 6YOs. As we present later in this annotated briefing, close to 100 percent of recruits with 6-year obligations receive follow-on training. For the FY01 6YO accessions who reached the fleet, the average amount of time spent getting to the fleet was 18.4 months—1.6 months less than for the FY00 accessions. Time to the fleet for 6YOs is at an 8-year low; however, this may increase as the remaining 6.4 percent of 6YO FY01 accessions reach the fleet.

The FY01 2YO, 4YO, and 6YO accession cohorts have reached the fleet sooner or at the same speed as the FY00 accessions:

- 5YO: Time to the fleet for 5YO accessions was constant at 10.1 months for the FY99 and FY00 accessions. The FY01 accessions took 10.4 months to reach the fleet. This is still 1.5 months less than the average time it took an FY97 accession to reach the fleet.

- 4YO: From FY97 to FY98, time to the fleet decreased by 0.7 month to 8.2 months and then slowly increased to 8.7 months for FY00 4YO accessions. That slight increase has been reversed with the FY01 accessions, who took only 8.5 months to reach the fleet.
- 3YO: The recent downward trend in time to the fleet for 3YO recruits ended with the FY01 accessions. FY01 3YO accessions took 8.8 months to reach the fleet, 0.1 month less than the FY97 accessions and 0.8 month more than the FY00 accessions.
- 2YO: From FY97 to FY98, time to the fleet increased slightly to 7.7 months and has approximately stayed at that level since. FY01 2YO accessions took 7.6 months to reach the fleet, only 0.2 month less than FY00 accessions. Non-Gendets constitute a small proportion of 2YOs. Of the FY01 accessions, 130 2YOs were promised ratings, and 107 made it to the fleet.



The next two charts detail the changes in average time to the fleet since the FY97 accession cohort. Training reengineering affects FY98 and subsequent accessions, so a comparison of FY97 with FY00 and FY01 accessions provides information on training trends since the introduction of training reengineering. This allows us to examine whether training data trends are consistent with training initiative goals. Comparisons of the FY00 and FY01 accessions reflect any shifts in the most current initial training data.

We present data at the rating group level for non-Gendet recruits with original enlistment contracts of 3YOs, 4YOs, and 5YOS who reached the fleet. We grouped these obligation lengths because (1) the 3YOs probably changed rating and obligation length, but we report initial obligation length, and (2) some rating groups are predominantly one obligation length, so we aggregated the data to avoid small category sizes. We exclude 2YOs because most are not rated, and data on 6YOs is presented in the next slide.

Part of the restructuring of Navy training includes grouping similarly skilled Navy ratings under the same learning center. These learning centers are responsible for the entire training pipelines of their designated ratings. For this annotated briefing, we grouped Navy ratings based on the classifications used for the Navy learning centers. A backup slide gives the ratings included in each group.

For all 3YO, 4YO, and 5YO FY01 non-Gendet recruits, time to the fleet decreased to 9.3 months from 9.7 months for FY97 accessions. This decline reflects significant decreases in time to the fleet for Cryptology, Health, Intelligence, and Surface Combat recruits. The FY01 accessions for the majority of the ratings groups took less time to reach the fleet than FY97 accessions.

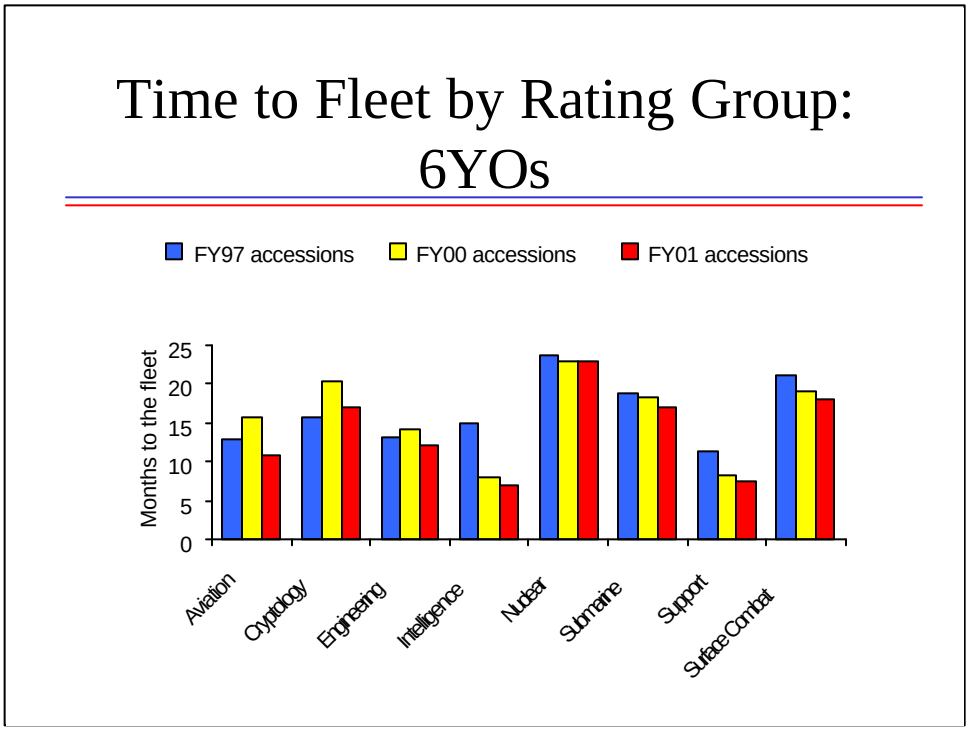
The only rating group that took longer to reach the fleet was Submarine: 2.5 months longer for the FY01 accessions than the FY97 accessions. The increase in time to the fleet may have been from changes in training requirements, as is suggested by the corresponding change in obligation lengths. The composition of submarine recruits shifted from 47 percent being 5YOs in FY97 to over 85 percent being 5YOs in FY00 and FY01. In addition, the FY00 and FY01 accessions spent more UI time in bootcamp, A-school, and follow-on schooling than the FY97 accessions. This suggests that for the Submarine group the shift to more recruits in longer training pipelines increased the average time it takes to reach the fleet. We don't, however, find major shifts in the submarine curriculum during this period. The same four submarine training classes were taken by the largest number of FY97, FY00, and FY01 accessions.

The difference in time to the fleet for the FY01 accessions versus the FY00 accessions is less dramatic. The rating groups with the most significant decreases in time to the fleet from the FY00 to FY01 accessions are Cryptology, Surface Operations, and ITs. The biggest decline was in the Cryptology group (14.2 to 11.5 months). The decrease in time to the fleet for the Cryptology rating group was consistent across all Cryptology ratings. Despite the recent decrease for the Surface Operations groups, on average the FY97 accessions got to the fleet 6 days sooner than FY01 accessions. The IT group consists of only IT-rated recruits and is discussed in more detail in a later slide.

Time to the fleet has not varied much for Aviation, Engineering, Seabees, or Support. For these ratings, improvements in getting recruits to the fleet quicker seem to have leveled off or never occurred.

Data are not presented for the Nuclear rating group. All FY01 accessions in the Nuclear ratings had 6-year obligations, so time to the fleet for those recruits is presented on the next slide. Data are not presented for the Security Masters-of-Arms (MA) rating group because there were no 3YO, 4YO, and 5YO non-Gendet FY97 accessions and only seven FY00 accessions. For the 208 FY01 accessions who made it to the fleet with the MA rating, it took an average of 8.1 months to reach the fleet.

Later in this document, we present months to the fleet for the MS and IT ratings separately. Data for other individual ratings are available on request. A backup slide shows fleet arrival time, by rating group for each cohort from FY93 to FY01.



This slide shows time to the fleet for 6YO rating groups corresponding to the Navy's learning centers. The rating groups with the most significant declines in time to the fleet from FY97 to FY01 are Intelligence, Support, and Surface Combat, which decreased 8.1, 3.9, and 3.1 months, respectively. The significant drop in time to the fleet for 6YO Intelligence ratings may reflect the change in number of accessions from 11 FY97 accessions to 73 FY01 accessions.

All FY01 rating groups reached the fleet sooner than their FY00 counterparts. The rating groups with the most significant declines in time to the fleet are Aviation, Cryptology, and Engineering. Time to the fleet for these rating groups decreased by 4.8, 3.1, and 2 months, respectively. For the Cryptology group, time to the fleet increased from the FY97 to FY00 6YO accessions, and then for the FY01 accessions declined slightly. The two largest ratings of the 6YO Aviation group both had decreases in time to the fleet. FY01 aviation electronics mate and aviation electronics technician recruits reached the fleet 4.9 and 1.4 months sooner than FY00 6YOs in these ratings. The FY00 to FY01 decrease for the Engineering group is driven by decreases in time to the fleet of the four largest 6YO ratings in the Engineering group (EN, IC, MM, HT, and EM).

Because the Health, IT, Seabees, Security, and Surface Operations ratings groups had fewer than ten 6YO FY00 or FY01 accessions who made it to the fleet, they are not shown. Of the rating groups shown, the Support, Aviation, and Intelligence groups are the smallest at 31, 82, and 73 6YO FY01 recruits, respectively. The Surface Combat rating group was the largest at 1,944 6YO recruits and accounted for 40 percent of all 6YO FY01 accessions who made it to the fleet.

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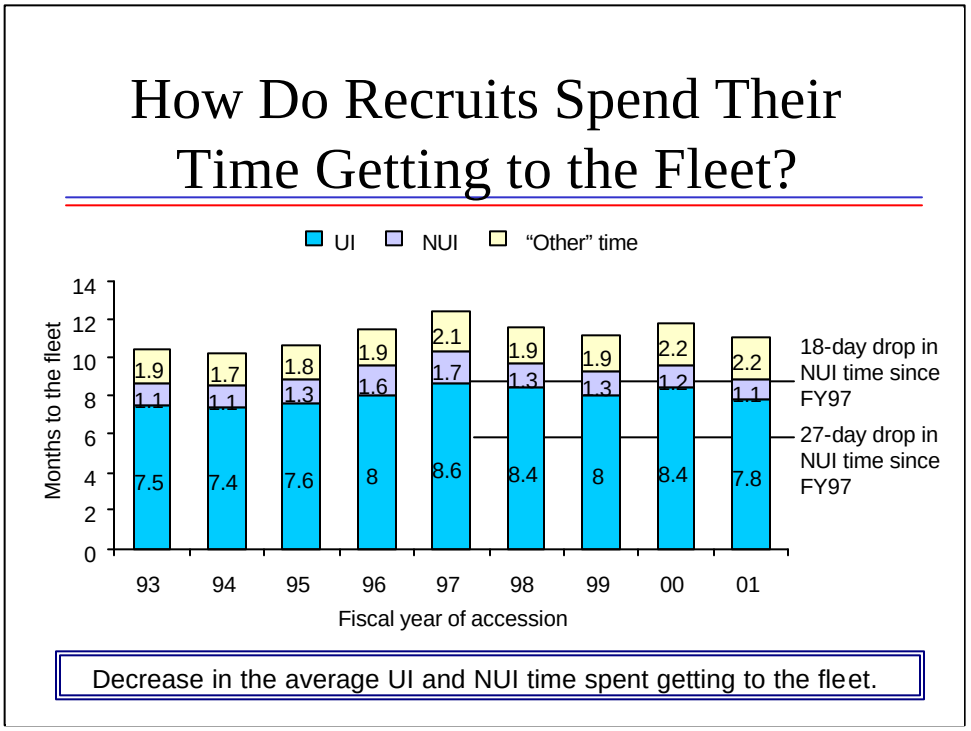
- Conclusions



The second issue we address is how recruits spend their time getting to the fleet. The next few slides show the amount of training time spent under instruction (UI), not under instruction (NUI), or in other, non-school-related activities ("other" time). For accessions who made it to the fleet as non-Gendets, time to the fleet is mostly made up of time spent UI, followed by time spent NUI, and finally "other" time.

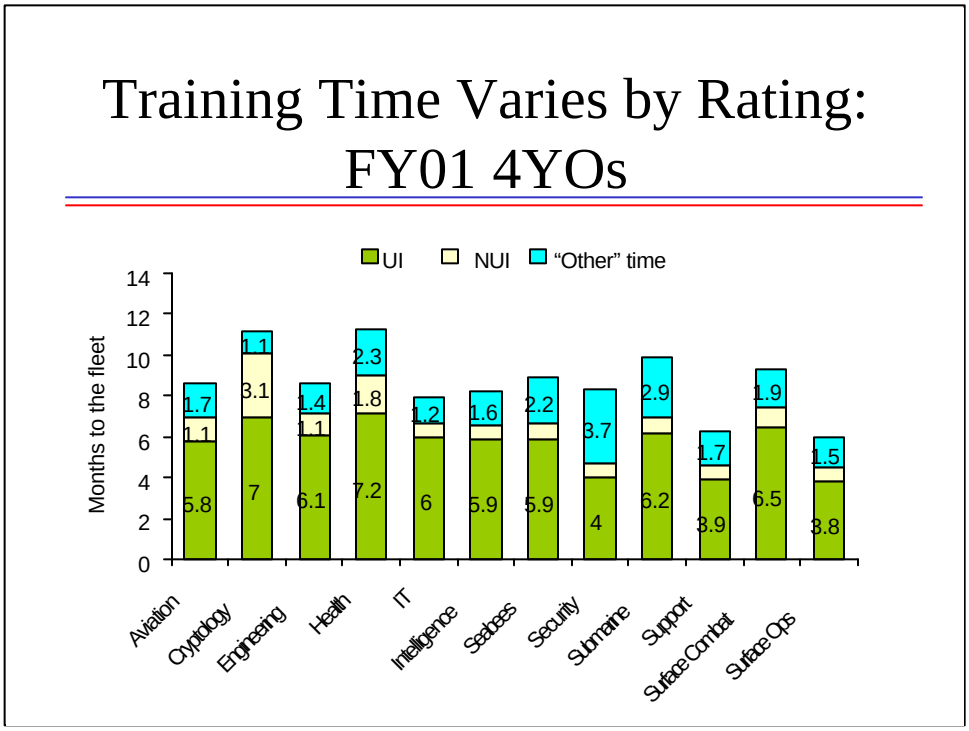
FY01 accessions spent less time NUI and UI than FY97 accessions. For these two accessions, there was no difference in "other" time. The FY97 to FY01 drop in UI and NUI time translates to 48 fewer days getting to the fleet.

The FY01 accessions got to the fleet 0.9 month quicker than FY00 accessions. This decrease was from drops in UI and NUI time. FY01 UI time is at a 6-year low and NUI time is at a 7-year low. "Other" time has not recently decreased. FY00 and FY01 accessions spent more pre-fleet time in "other" time than many of the earlier cohorts.

We computed "other time" as time to the fleet less training time. "Other" time represents time spent not at school and includes limited duty, PCS change, temporary or PSI duty, and hospitalization. NUI is time spent at school but not in training. Holiday standdown, lack of a security clearance, and backups at the next assignment, whether fleet or school, are reasons for NUI time. A backup slide lists examples of NUI and "other" time.

Backup slides show how recruits spend their pre-fleet time by obligation length (2YO, 3YO, 4YO, and 5YO).

Training Time Varies by Rating: FY01 4YOs



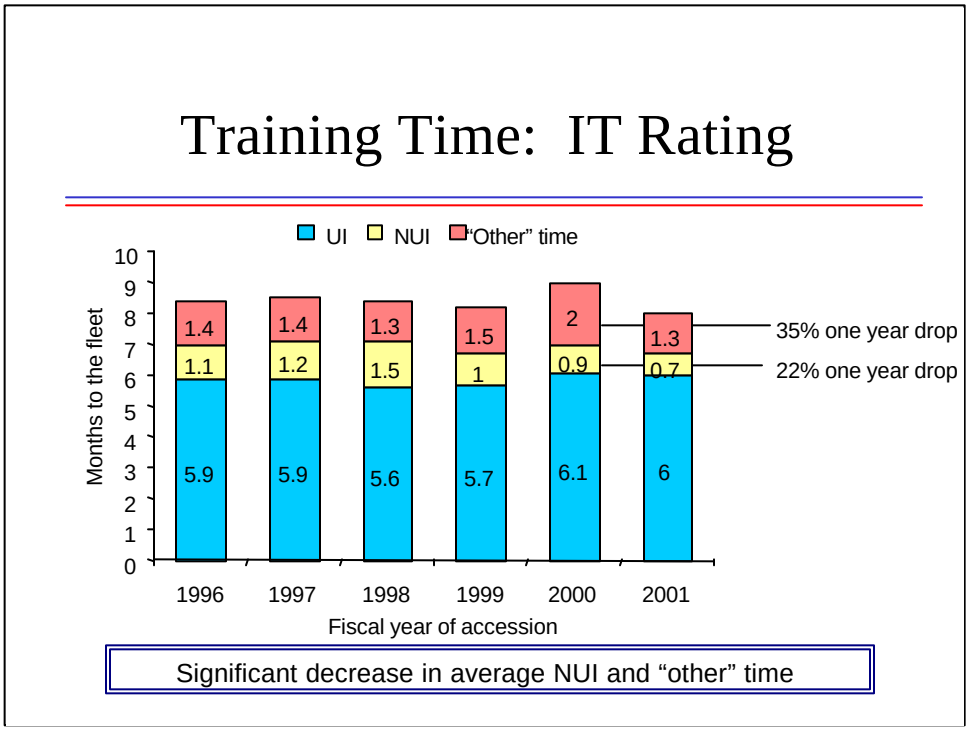
This chart shows by learning center the amount of training time spent under instruction, not under instruction, or in other, non-school-related activities for the FY01 4YO accessions who reached the fleet. On average, it took the FY01 4YO accession cohort 10.4 months to reach the fleet. For all the groups, the majority of time getting to the fleet is spent UI.

The way time is spent varies between rating groups. For most of the ratings, less than a month is spent NUI in getting to the fleet. However, the Cryptology group spent 3.1 months NUI. This may be driven by high NUI time spent by CTR and CTT recruits getting to the fleet (4.1 and 3.2 NUI months, respectively). The CTT and CTR recruits account for 27 percent of the FY01 accession Cryptology group.

The Security and Submarine groups took the most time—about 3.7 and 2.9 months, respectively—in "other" activities. The significant amount of "other" time spent by MAs, the only rating in the Security group, may be decreasing; for the 274 FY02 4YO MA accessions, only 1.4 months were spent in "other" time. The largest percentage of the 4YO Submarine rating group consists of MM recruits, who spent 3.8 months in "other" pre-fleet training time.

Of the rating groups, the Health and Seabees groups are the smallest, at 50 and 24 recruits.

Training time for the IT group is detailed on the next slide. Backup slides show how recruits spend their time by initial obligation and rating group, and list examples of NUI and "other" time. Of the FY01 accession cohort, only 0.8 percent of 4YO accessions have yet to reach the fleet.



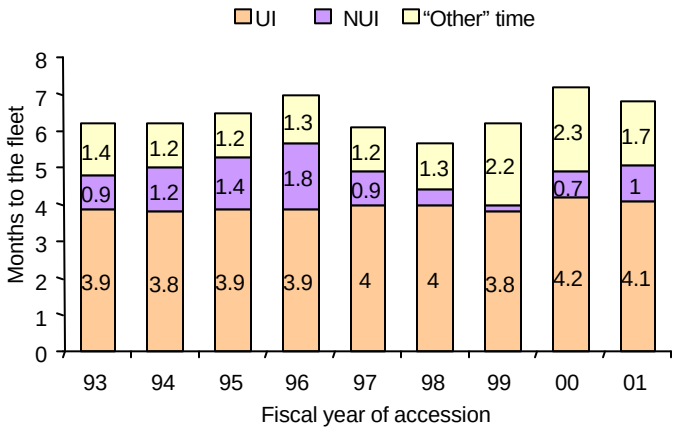
Some Task Force EXCEL initiatives have included evaluating how Navy training can incorporate civilian and corporate certification in the training pipeline. In this annotated briefing, we provide time-to-the fleet information on the ITs, MSs and AGs, which were among the first ratings to participate in this type of training reevaluation. For example, pilot program courses allowed IT Sailors to become CISCO certified Network Associated using civilian training organizations.

This slide presents a benchmark of time-to-the-fleet trends to measure the effect of future changes in IT training. In 1996, the Data Processing Technician (DP) and Radioman (RM) were combined under RM, which was merged with IT in 1999. Recruits of all obligation lengths who made it to the fleet as IT rated were included in this chart. Of the 761 non-Gendet FY01 IT promised accessions, 72 percent were 4YOs.

Average time to the fleet for an IT recruit is 8.4 months. Time to the fleet was longest among FY00 accessions at 9 months and lowest for FY01 accessions at 8 months. Time spent UI averaged around 5.9 months for the FY96 to FY01 accessions, increasing over this period, with a slight increase recently to 6 months. The recent drop in time to the fleet is driven by decreases in NUI and "other" time. FY01 accessions spent the least amount of time NUI and in "other" time compared with any of the other accession years presented. A backup slide lists examples of NUI and "other" time.

For FY96-01, the average number of recruits who reached the fleet each year was 1,063. More ITs—1,530—were in the FY99 cohort than any other year.

Training Time: MS Rating

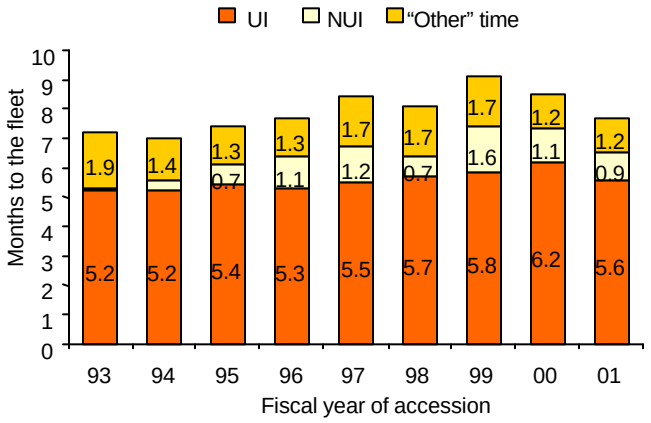


In 2001, MS recruits began to participate in training pilot programs. For example, some MS recruits are going to civilian culinary schools, such as the Culinary Institute of America, instead of more traditional A-school training. This chart shows MS training since FY93 as a reference for any future changes. Recruits who enlisted in the MS rating at all obligation lengths and reached the fleet are included. Of the 603 FY01 accessions, 74 percent were 4YOs.

MS recruits get to the fleet more quickly than the average non-Gendet recruit, 6.7 versus 11 months. MS FY00 recruits took the longest to reach the fleet at 7.2 months and the average FY98 MS recruit took only 5.7 months to reach the fleet. The fluctuations in time to the fleet for the MS accessions are the result of differences in NUI and "other" time. There has been a recent drop in "other" time. FY00 accessions spent 2.3 months in "other" time before reaching the fleet, which dropped by 16 days for the FY01 accessions. However, "other" time for FY01 accessions is still higher than in the past.

The average number of recruits who made it to the fleet as MS rated was 724 over the 9 years of data, and ranged from 249 for the FY00 accessions to 1,215 in FY94. The cohort size has not been declining over time, and the fluctuations in cohort size do not correspond with changes in UI, NUI, or "other" time. A backup slide lists examples of NUI and "other" time.

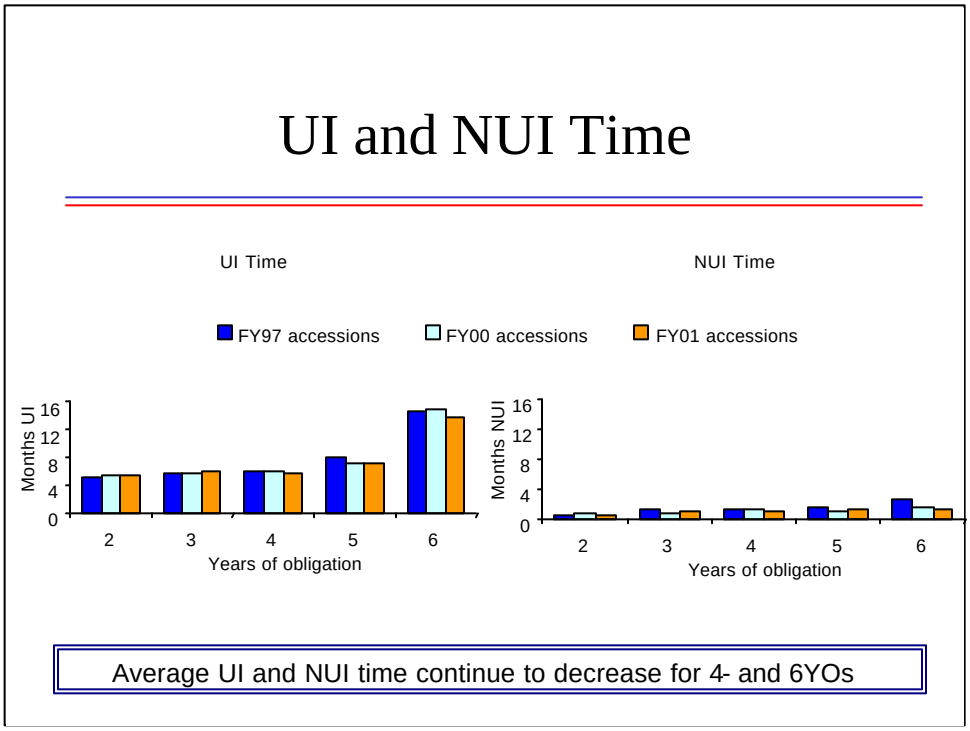
Training Time: AG Rating



Before the implementation of Task Force Excel, the aerographer's mate (AG) community had already begun training evaluation. That training evaluation, along with Task Force Excel initiatives, included an examination of how to provide AG with certification comparable to civilian meteorologists. This slide presents a benchmark of time to the fleet trends from FY93 to FY01 of AG accessions who reached the fleet. The impact of future changes in AG training can be measured against this benchmark.

AGs take approximately 8 months to reach the fleet. Time to the fleet peaked at 9 months for FY99 accessions. Since then it has dropped to a 5-year low of 7.7 months for the FY01 accessions. In addition, AG accessions have had a significant 18-day decrease in UI time from the FY00 to FY01 accessions.

The AG community is small. From the FY93 to FY01 accessions, an average of 113 AGs reached the fleet with each accession. For the FY00 and FY01 accessions, approximately 90 AGs reached the fleet. A backup slide lists examples of NUI and "other" time.

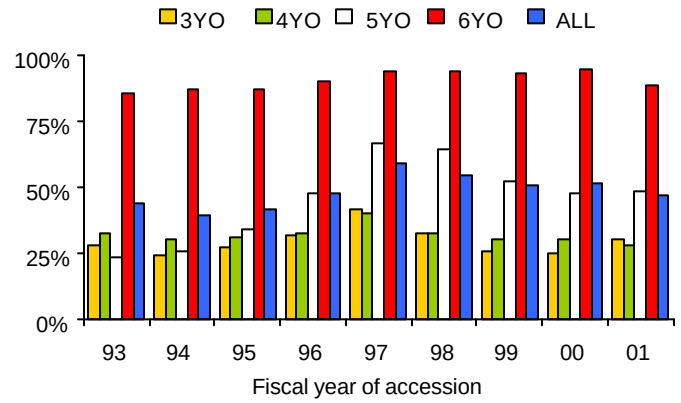


The chart at left shows average UI time by initial obligation for FY97, FY00, and FY01 accessions. Only recruits who made it to the fleet as non-Gendets are included. Since training reengineering began, UI time decreased for 4YO, 5YO, and 6YO accessions. For FY01 6YO accessions, UI time decreased from the FY00 to FY01 accessions by 1 month. For the other rating-promised obligation lengths, UI time was level over these periods or changed only slightly.

The chart on the right shows the average NUI time by initial obligation for the FY97, FY00, and FY01 accessions. The most significant reduction in NUI time occurred from the FY97 to FY00 accessions. Besides 3YOs and 5YOs, FY01 accessions spent the same or slightly less time in NUI time as FY00 accessions. 2YOs, 4YOs, and 6YOs spent 0.2, 0.1, and 0.4 less months, respectively, in NUI time.

The majority of recruits with longer obligations have longer training pipelines, which is reflected in the fact that 6YO recruits spend more time UI. This is not always the case, however; some recruits have longer obligations in exchange for receiving enlistment bonuses or training that is valued in the civilian workforce. We include the FY01 accession cohort because only 2.4 percent of all accessions have yet to reach the fleet. A backup slide lists examples of NUI time.

Who Receives Follow-on Pre-Fleet Training?



Decline in 3YO, 4YO and 5YO follow-on participation rates

Initial training for all non-prior-service accessions starts with bootcamp, followed by A-school training for all non-Gendet recruits. Following A-school, recruits either go to the fleet or get more training. This chart shows the pre-fleet follow-on participation rates for recruits who made it to the fleet. We define follow-on training as any training other than bootcamp or A-school. Over the FY93 to FY01 period, the follow-on courses taken most frequently were Nuclear Power, followed by Petty Officer Indoctrination/Training and Command Indoctrination.

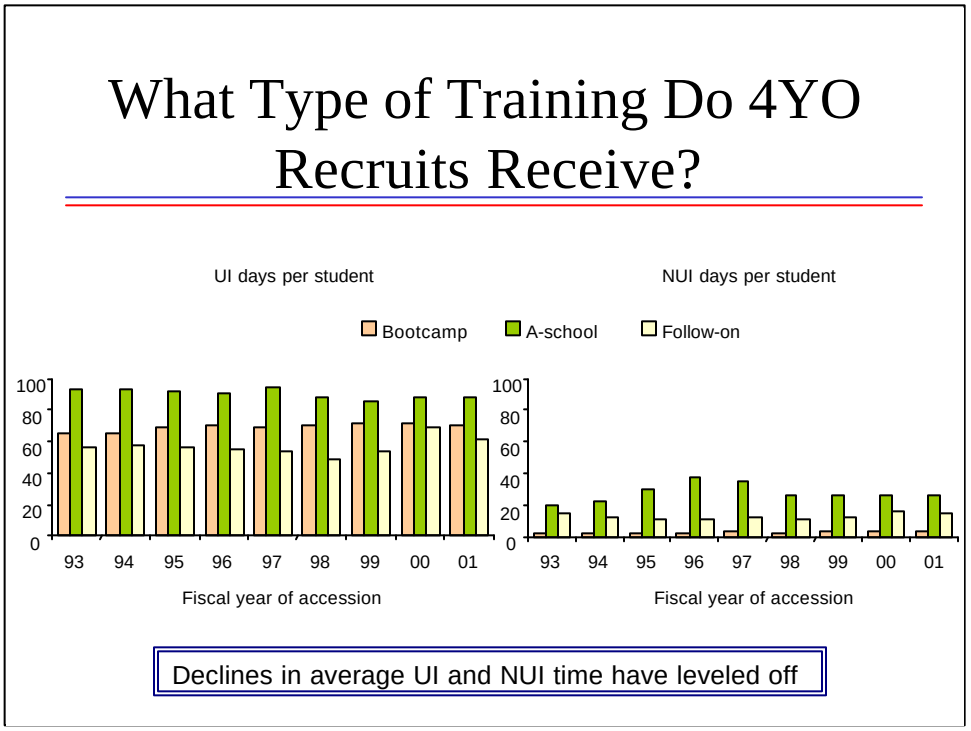
On this chart, we break out YO for each accession cohort. A recruit's rating and initial obligation length contribute to his or her likelihood of participating in follow-on training. Most recruits who sign a 6-year contract, regardless of rating, are promised some level of follow-on training after A-school. For example, 89 percent of FY01 6YO accessions participated in follow-on training.

For 3YOs, 4YOs, and 5YOs, the percentage of recruits with follow-on training increased in the early 1990s and peaked for FY97 accessions. Participation in follow-on training will increase the amount of time it takes to reach the fleet, so it is not surprising that there was a simultaneous decrease in follow-on participation and in time to reach the fleet from the FY97 to FY01 accessions. Despite this decrease, for the 3YOs and 5YOs, the follow-on participation rate is at or above the rate for pre-FY96 accessions. At about 93 percent, the 6YO follow-on participation rate has been constant for the FY97 through FY00 accessions.

The most dramatic decrease from the FY97 to FY01 accessions has been a 12-percentage-point drop among 4YOs, but follow-on participation also dropped for the other obligation lengths:

- 3YO: Participation among FY01 accessions is at 31 percent, 11 percentage points lower than for FY97 accessions. There has been a recent increase in follow-on training participation from 25 to 31 percent from the FY00 to FY01 accessions.
- 4YO: About one-third of 4YOs receive follow-on training. The participation rate peaked at 40 percent for the FY97 accessions, and has dropped to its lowest level, 28 percent for the FY01 accessions.
- 5YO: Follow-on participation has been gradually declining with the past 4 accessions and has recently leveled off at about half of all 5YO accessions who reach the fleet. The FY01 accession participation rate of 49 percent is higher than it was for the FY93 to FY95 accessions.
- 6YO: The percentage of 6YO recruits participating in follow-on training increased from 91 percent of FY96 accessions to 95 percent of FY97 accessions, and has leveled off for FY98-00 accessions. Follow-on participation has recently dropped to 89 percent in FY01, a level similar to pre-FY96 accessions. Even though this chart includes only those recruits who have reached the fleet, the recent decrease in 6YO follow-on participation may be less dramatic as the remaining 6.4 percent of FY01 6YO accessions reach the fleet.

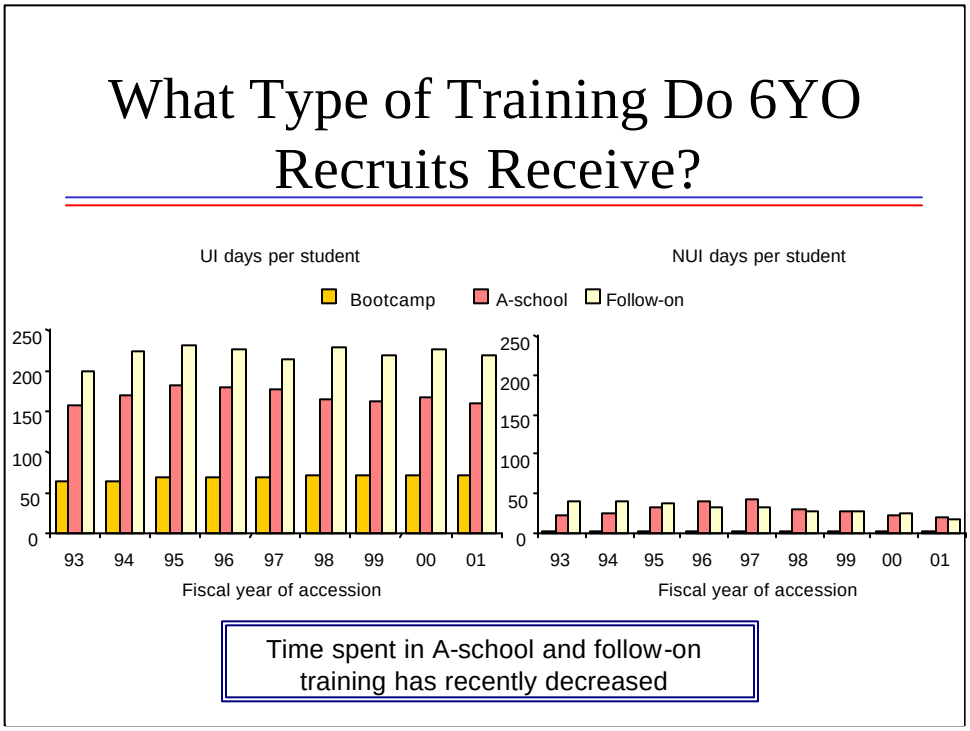
Over this period, time to the fleet tracked overall follow-on participation rates. This suggests that time to the fleet is sensitive to changes in follow-on participation and levels of follow-on training. In this annotated briefing, we discuss how follow-on training participation has changed over time by obligation lengths. However, follow-on participation rates and obligation lengths may differ over time in response to rating composition needs or changes in training requirements. Future research on time to the fleet ought to include a more thorough analysis of fluctuations in follow-on participation rates. This would provide insight on what influences follow-on training participation rates and whether these changes are a major (or minor) factor in fluctuations in time to the fleet.



The chart on the left (right) shows the average time 4YO accessions spend under instruction (not under instruction) for each type of training. For these charts, average time is calculated for those recruits who went through that type of training (as opposed to the entire accession cohort).

4YOs spend most pre-fleet UI time in A-school: 88 days for FY01 accessions. From FY97 to FY99 accessions, the average UI time spent in A-school decreased from 95 to 86 days. From there, UI time in A-school was only 2 days higher for FY00 and FY01 accessions. UI bootcamp has followed an increasing trend, from 65 days for the FY93 accessions to 72 days for the FY99 accessions. Since the FY99 accessions, UI bootcamp time has held constant. Follow-on UI training time dropped 11 days from the FY00 to FY01 accessions, after increasing to a 9-year high of 70 days.

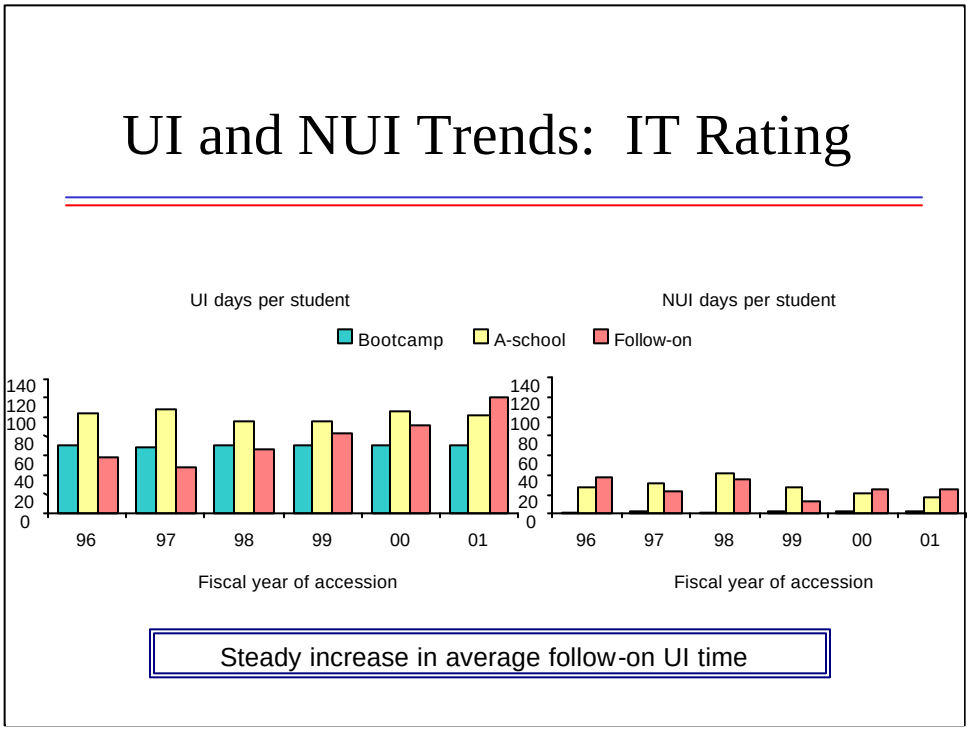
NUI time for 4YOs occurs primarily during A-school, perhaps because recruits spend more time between A-school and follow-on training at A-school (awaiting transfer) than at follow-on school (awaiting instruction or due to equipment shortage). FY97 accessions in A-school spent an average of 35 days NUI. This dropped 2 days for FY98 accessions and has leveled off at 36 days. The elimination of all NUI time during A-school for FY01 4YO accessions translates to an additional 800 non-Gendet work-years available to the fleet. Bootcamp NUI time was on average 2.2 days for recruits who accessed before FY97, 3.5 for FY97 recruits, and 3.1 for recruits who accessed after FY97 recruits did. Bootcamp NUI time peaked at 3.7 days for FY00 accessions and has decreased less than a day for FY01 accessions. NUI follow-on training increased to 16 days for FY00 accessions and has only slightly decreased to 15 days—still higher than the overall average levels.



The chart on the left (right) shows the average time 6YO recruits spend under instruction (not under instruction) for each type of training. Recruits with 6-year obligations who participate in follow-on training spend most of their pre-fleet UI time in follow-on training: 218 days for FY01 accessions. This is 8 days less than the number of days spent among FY00 6YO accessions in follow-on training. A 9-day decrease in A-school training time occurred from the FY00 to the FY01 accessions. UI A-school time has generally declined from 182 days for FY95 accessions to 160 days for FY01 accessions. Over this period, we observe little variation from the 68 average days spent in UI bootcamp.

The chart on the right shows average NUI time for 6YO recruits. NUI time for FY01 6YOs was 49 days less than for FY97 accessions. Declines in A-school and follow-on NUI time account for much of this drop. Compared with NUI time spent by FY97 accessions, FY01 6YOs' A-school NUI time of only 20 days translates to 328 additional non-Gendet work-years available to the fleet. The drop to 16 days of follow-on NUI translates to 204 additional non-Gendet work years to the fleet. For 6YOs, NUI time decreased 11 days from the FY00 to the FY01 accessions. NUI follow-on time has recently decreased to 16 days for FY01 accessions from 24 days for FY00 accessions. Bootcamp NUI time has been less than 3 days per 6YO recruit over the FY93 to FY01 accessions.

For these charts, average time is calculated for those recruits who went through that type of training (as opposed to the entire accession cohort). We include the FY01 accession cohort because only 6.4 percent of 6YO accessions have yet to reach the fleet. A backup slide lists examples of NUI time.

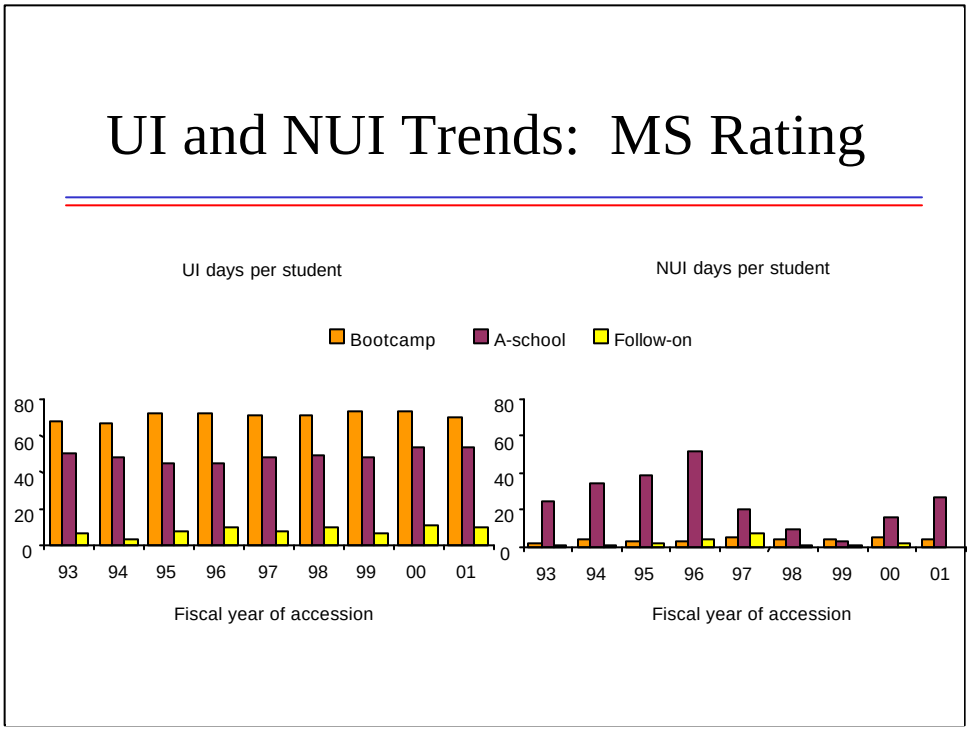


The charts above show the average time IT recruits spend under (and not under) instruction for each type of training. Days per student is based on those recruits who went through that type of training (as opposed to the entire IT cohort). These charts include recruits who enlisted into the IT rating at all obligation lengths.

Days spent in follow-on training has increased to the point that FY01 IT recruits who take follow-on training spend more UI time in follow-on schools than in A-schools. FY97 accession recruits who participated in follow-on schooling and reached the fleet as IT rated spent an average of 48 days in follow-on training, which more than doubled to 121 days for FY01 accessions. This trend may be a combination of the small number of IT FY01 recruits participating in follow-on training and actual increases in follow-on training. Though all FY01 IT accessions participated in A-school training, only 8 percent—63 recruits—participated in follow-on training. IT recruits spend approximately 70 days UI at bootcamp and 102 days UI at A-school.

For each type of training, NUI time recently decreased. The most dramatic decrease is the 25-day drop in NUI time spent in A-school from the FY98 to FY01 accessions. Follow-on NUI time has fluctuated from 13 to 35 days, without a discernible pattern.

From a high of 1,530 recruits among the FY99 accession, the number of IT recruits has decreased to 929 for the FY00 accession and 761 for the FY01 accession. A backup slide lists examples of NUI time.

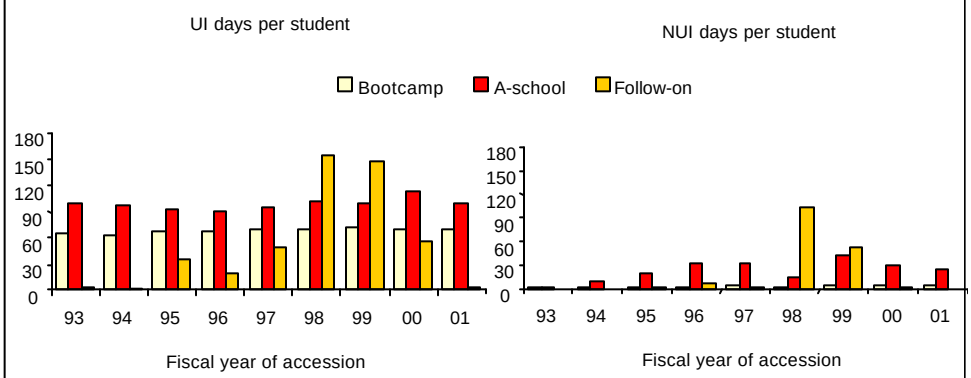


These charts show the average time MS recruits spend under (and not under) instruction for each type of training. Days per student is based on those recruits who went through that type of training (as opposed to the entire year group). These charts include recruits who enlisted into the MS rating at all obligation lengths.

MS recruits spend most pre-fleet UI time at bootcamp, an average of 71 days over this period. The number of days spent UI in bootcamp has held steady. The majority of non-Gendets who make it to the fleet as MSs receive A-school training. For example, 95 percent of FY01 accessions participated in A-school training. Since the FY96 accessions, UI time spent in A-school has increased from 45 days to 54 days for FY01 accessions. Less than a fourth of MS recruits participate in follow-on training, but participation is increasing. Of MS FY98 accessions, only 13 percent participated in follow-on school, which increased to 25 percent for FY00 accessions and 23 percent for FY01 accessions. The increase in participation corresponds with a slight increase in follow-on UI training days, from 8 days for FY97 accessions to 18 days for FY01 accessions.

The average time MS recruits spend not under instruction for each type of training has not followed any specific trend. NUI bootcamp and follow-on time have decreased slightly to 4.1 and 0.2 days, respectively. NUI time spent in A-school peaked for FY96 MS accessions at 51 days, and then dropped to 3 days for FY99 accessions. Recently, NUI time in A-school has increased, to 27 days for FY01 accessions. A backup slide lists examples of NUI time.

UI and NUI Trends: AG Rating



These charts include AG recruits who reached the fleet and went through each type of training (as opposed to the entire AG cohort). The average time AG recruits spend under (and not under) instruction for each type of training is shown. These charts include recruits who enlisted into the AG rating at all obligation lengths.

Almost all AGs, 98 percent, participate in A-school. The average number of days spent in A-school is 123 days. The number of UI days spent in A-school has held constant at approximately 100 days. The number of NUI days spent in A-school has ranged from 2 days for FY93 to 42 days for FY99 accession, and has recently dropped to 24 days.

Less than 9 AG recruits from each accession cohort participate in follow-on training, so the variability in follow-on UI and NUI time is not surprising. Follow-on UI and NUI time peaked at 155 and 105 days with the FY99 accessions. With the FY01 accession, follow-on UI time is at a 3-year low of 56 days, and NUI time is only 3 days.

A backup slide lists examples of NUI time.

Ratings with Largest Decreases in UI Time

	Fleet arrivals			From FY97 to FY01		From FY00 to FY01	
Rating	FY97 arrivals	FY00 arrivals	FY01 arrivals	Decrease in months	Percentage decrease	Decrease in months	Percentage decrease
CTM	161	86	135	3.2	28	1.6	16
FT	132	101	211	2.5	18	-0.1	-1
EM	805	865	1152	1.9	14	2.4	17
DT	84	294	390	1.6	26	0.6	12
FC	1066	1258	917	1.5	9	0.4	3
CTR	244	300	263	1.5	16	0.8	9
ET	1841	1674	1661	1.4	10	0.2	2
MM	1671	1703	1936	1.4	11	1.7	13
MT	103	150	153	1.4	11	0.6	5
GM	246	397	387	1.3	12	0	0

This table shows the training pipelines with the largest decreases in UI time since training reengineering started. To measure the change, we compare FY01 and FY97 training time spent under instruction. This table does not show average annual changes over this period; rather, it shows differences in UI time between these years. The ten top ratings account for 7,205 recruits, or 28 percent of all FY01 recruits who made it to the fleet.

To show whether changes in UI time continue to improve for these ratings, this table also displays the difference in UI time from the FY00 and FY01 accessions. For the FT rating, UI time was higher for the FY01 accession cohort than it was for the FY00 accession cohort. For the other ratings, training improvements have continued. This is particularly true for the EM rating, which had a recent 17-percent decrease in the number of months spent in UI time, the second largest recent decrease in UI time.

The DT rating is the only with a significant change in the number of accessions. DT fleet arrivals more than tripled from the FY97 to FY00 accessions.

Backup slides show the same information for the top ten ratings with the largest increases in UI time over this period, as well as the ten ratings with the largest decreases between FY00 and FY01.

Ratings with Largest Decreases in NUI Time

	Fleet arrivals			From FY97 to FY01		From FY00 to FY01	
Rating	FY97 arrivals	FY00 arrivals	FY01 arrivals	Decrease in months	Percentage decrease	Decrease in months	Percentage decrease
ET	1841	1674	1661	1.7	53	-0.3	-25
FC	1066	1258	917	1.7	50	0.8	32
AS	242	196	142	1.5	63	0.1	10
STG	524	336	416	1.4	44	0	0
CTI	159	173	127	1.2	34	1.3	36
AD	694	897	866	1.2	60	0.1	11
CTA	61	36	58	1.1	58	0.1	11
GSE	147	82	184	1	42	0	0
MT	103	150	153	0.9	38	0.7	32
CTT	97	51	105	0.9	22	1.3	29

Here we list the ratings with the largest decreases in NUI time since training reengineering started. We also show the most recent changes in NUI time for these ratings. The ten top ratings account for 4,629 recruits, or 18 percent of all FY01 recruits who made it to the fleet. For FY01 accessions, the surface combat systems and cryptology ratings showed significant changes in NUI time (i.e., of the top ten ratings, three are surface combat system ratings and three are cryptology ratings).

The ET rating is the only one where NUI time was higher for the FY01 accession cohort than it was for the FY00 accession cohort. Decreases in NUI time seem to be slowing down for *some* ratings, including ET, STG, and GSE, but not for *all* ratings. For example, the decreases in NUI time from FY97 to FY01 for the CTI and CTT cryptology ratings were primarily caused by recent decreases in time spent NUI.

Backup slides show the same information for the ten ratings with the largest increases in NUI time over this period, as well as the ten ratings with the largest decreases between FY00 and FY01. Another backup slide lists examples of NUI time.

Annotated Briefing Outline

- Introduction
- ESTF Database
- Months to the fleet
- Breakdown of how time to the fleet is spent
- ➢ **Timing of temporary/PSI (programmed school input) duty and initial skills training**
- Indicators of electronic learning (e-learning)
- Pre-fleet attrition rates
- Conclusions

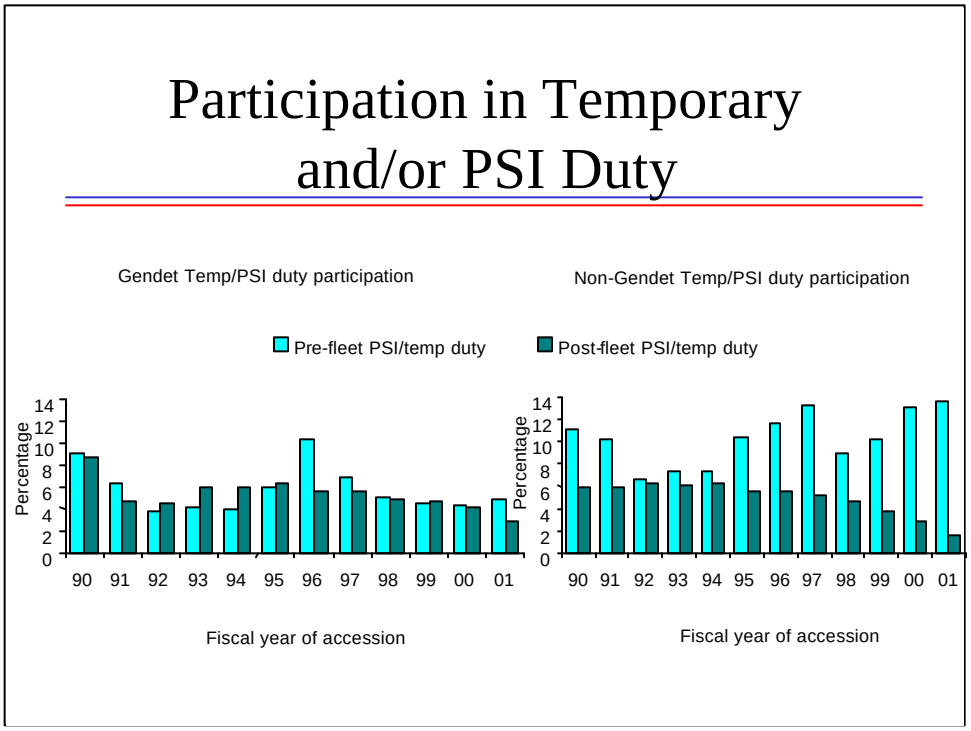
Timing of Temporary/PSI Duty and Initial Skills Training

- Temporary and PSI duty proxy for the level of "stashing" that occurs
  - Stashing involves recruits being temporarily assigned to the fleet while waiting for A-school
- Gendet Target Enlistment Program (GTEP)
  - Example of temporary/PSI duty that is not stashing
- Examine whether the timing of training has changed over time
  - What are post-fleet A-school participation rates?

We now turn to the issue of temporary duty and post-fleet A-school participation rates as indicators of non-traditional training pipelines. Up to this point, we have examined initial skills training that Sailors received before reaching the fleet. We shift to the examination of pre- and post-fleet temporary duty assignment and A-school participation for both Gendets and non-Gendets.

We first address initial skills training that occurs after stashing, by presenting participation in temporary or PSI duty. We define *stashing* as recruits being temporarily assigned to the fleet while waiting for A-school and classified as programmed school input (PSI) or temporary duty assignment. In the next slide, we present the percentage of Gendets and non-Gendets who are classified in temporary or PSI duty. Not all PSI duty assignments indicate stashing, so the level of temporary/PSI duty classification provides only suggestive evidence of how much stashing occurs. Under the Gendet Target Enlistment Program (GTEP), which we examine later, participants are at a permanent duty station classified as PSI before going to A-school.

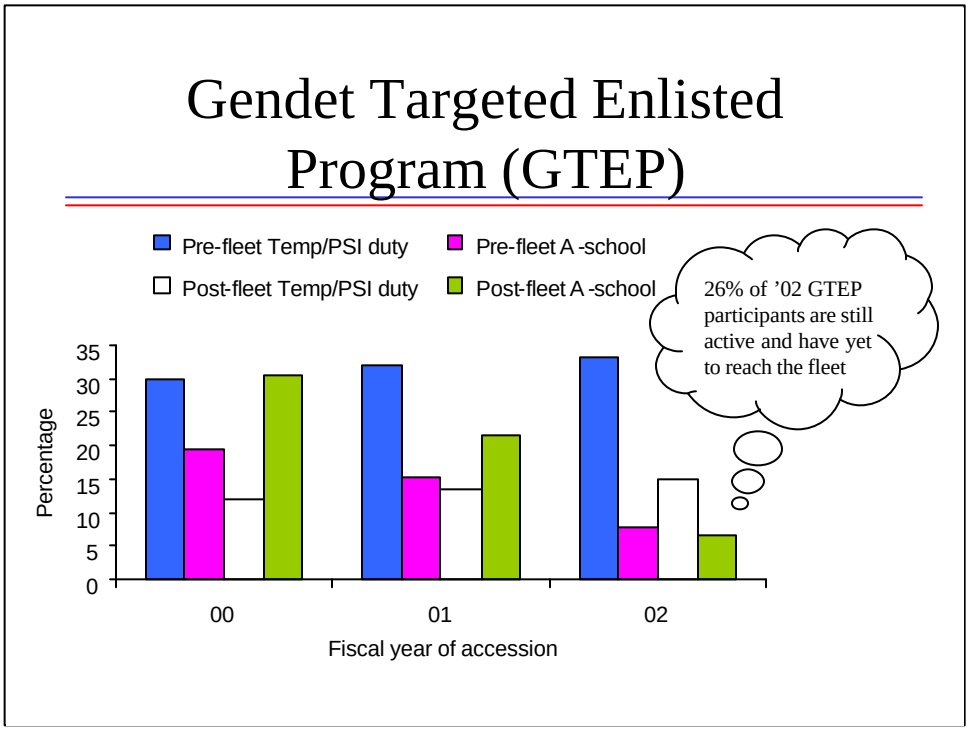
Finally we look at what percentage of Gendets and non-Gendets participated in A-school after reaching the fleet. We examine post-fleet A-school participation to provide an indicator of changes in the timing of skills training.



This slide shows the participation rate in temporary or PSI duty for recruits who reached the fleet as an indication of the proportion of stashing occurring. Stashing is the temporary assignment classification of Sailors in the fleet waiting for A-school, but (as shown on the next slide), it is not the only reason for classification in temporary or PSI duty. Temporary duty classification includes being temporarily assigned to the fleet for further assignment or transfer. PSI duty is defined as guaranteed programmed school input program.

Less than 14 percent of recruits are classified as being in temporary or PSI duty before or after reaching the fleet. The level of participation for all recruits in post-fleet temporary or PSI duty has decreased since the FY96 accessions. The largest decrease has been for non-Gendet accessions participating in temporary duty assignment, suggesting that stashing may be decreasing. However, for the most recent accessions, such as FY00 or FY01, the decrease in post-fleet temporary duty could be (a) from an actual decrease in temporary or PSI duty fleet assignments or (b) because these accessions have been in the fleet for less time and had less opportunity to participate in post-fleet temporary duty.

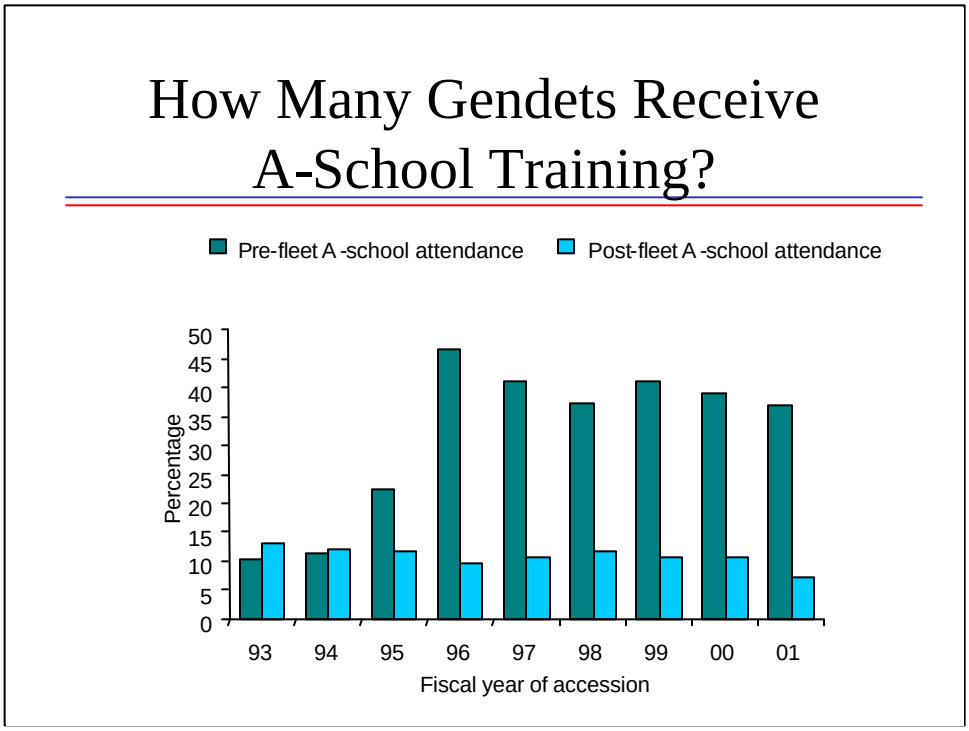
The chart on the left shows temporary and/or PSI duty participation rates for Gendets. After increasing to a 10-percent participation rate for FY96 accessions, the rate of Gendets participating in pre-fleet temporary and/or PSI duty has decreased. The chart on the right shows temporary and/or PSI duty participation rates for non-Gendets. After dropping to 9 and 10 percent for FY98 and FY99 accessions, participation in pre-fleet temporary or PSI duty returned to the FY96 accession level of 13 percent for the FY00 and FY01 accessions.



This slide shows the participation in temporary and/or PSI duty and A-school for recruits in GTEP. GTEP was implemented on June 1, 1999, as a continuation of the Targeted "A" School Program (TASP). The goal of GTEP is to improve Gendet manning, by allowing Gendet recruits to receive an enlistment bonus. GTEP also allows recruiters to guarantee A-school training when there are few A-school openings. GTEP rules state that recruits are classified as Gendets, have a contract length of at least 4 years, and spend 9 to 15 months in the fleet before going to A-school. Before A-school, the recruits are at a permanent duty station under the classification of PSI. Thus, GTEP is an example of how Temp/PSI duty classification does not always indicate the occurrence of stashing.

For each accession cohort, about 32 percent of GTEP recruits participated in pre-fleet PSI or temporary duty assignments. Pre-fleet A-school participation is lower than pre-fleet temporary duty participation and has decreased from 19.5 percent for FY00 accessions to 15.4 percent for FY01 accessions. The A-school and temporary duty participation rates on this chart differ from previous CNA analyses [3] because these accessions are further along in their careers.

Of the 14,947 FY01 accessions who reached the fleet as Gendets, 259 were participating in the program. Of the FY01 accession GTEP participants, 56 reached the fleet rated. Of FY02 accessions, 1,144 recruits participated in GTEP. Of those 1,144, 57 percent made it to the fleet as Gendets, 3 percent made it to the fleet rated, 15 percent attrited, and the remainder are still in pre-fleet training or PSI/temp duty.



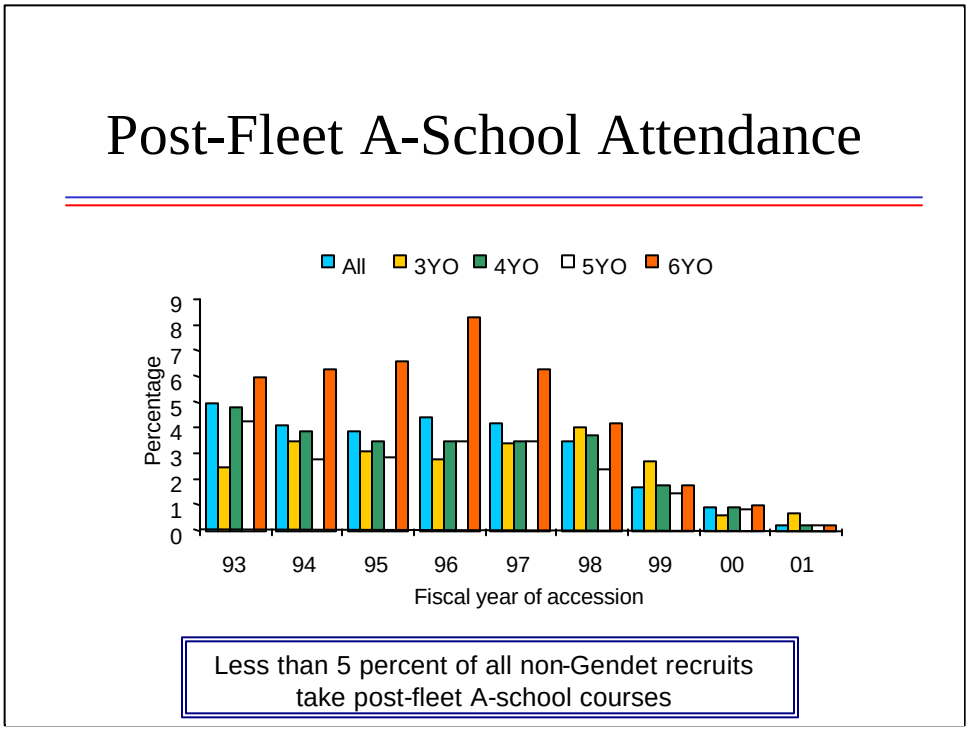
Participants in GTEP are not the only Gendets who receive A-school training. Of the 14,957 FY01 accessions who made it to the fleet as Gendets, 104 had A-school training after reaching the fleet, and only 9 percent of those recruits participated in GTEP.

An average of 32 percent of Gendets participate in pre-fleet A-school and 11 percent receive post-fleet A-school. For the FY96 and later accessions who reached the fleet as Gendets, about 40 percent participated in pre-fleet training. A quarter of that number participated in post-fleet A-school training. However, post-fleet participation may increase as accessions get further into their careers.

Over this period, 73 percent of Gendets passed their last pre-fleet A-school course. Of FY01 Gendet accessions who reached the fleet, 88 percent graduated from at least one A-school course, and half were rated within 6 months of reaching the fleet. This post-fleet rating of Gendets may be from a lag in personnel file updates and/or from Gendets being rated after reaching the fleet.

Most Gendets who receive A-school training have 4YO obligations; for FY01 accessions, 4YOs made up 54 and 86 percent of those who participated in pre-fleet and post-fleet A-school, respectively. Of the 4YO Gendets, an average of 29 and 12 percent received pre-fleet and post-fleet A-school, respectively. Almost all FY01 non-Gendet 4YOs (99.8 percent) receive A-school training.

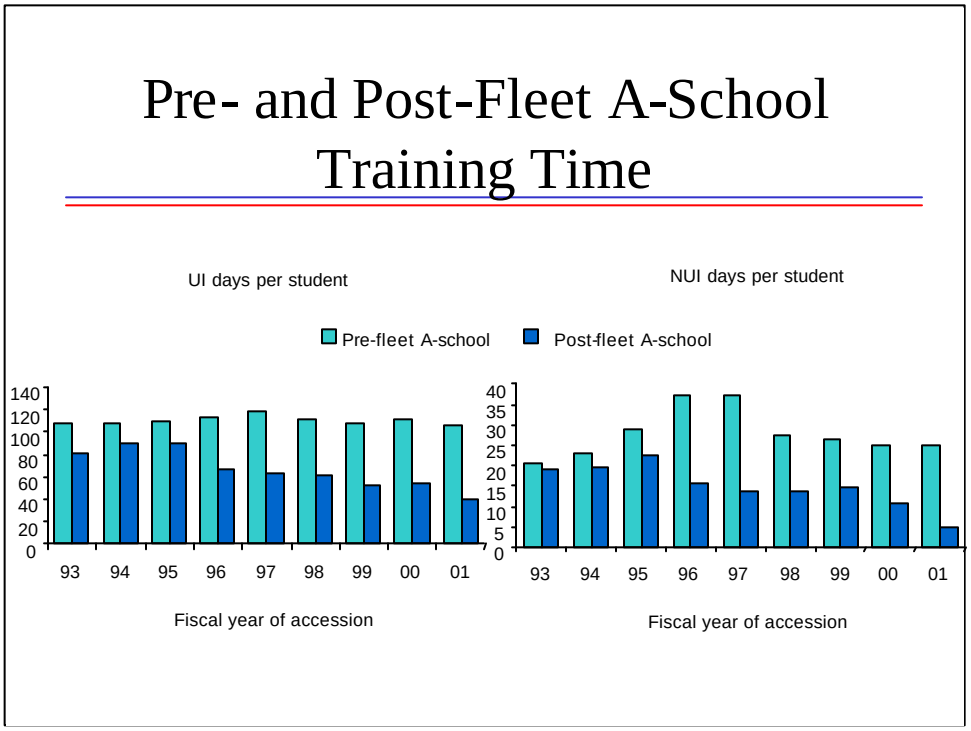
Sailors who enlisted as Gendets and were rated before reaching the fleet are not included on this slide. The A-school training on this chart includes apprenticeship, preparatory, and remedial A-school courses.



This slide shows, by obligation length, the percentage of non-Gendet recruits participating in post-fleet A-school. For rate-promised recruits early in their careers, most A-school training is received before reaching the fleet.

Participation in post-fleet A-school is limited. Less than 5 percent of non-Gendet recruits participate in A-school after reaching the fleet. A higher percentage of recruits with 6-year obligations receive pre-fleet and post-fleet A-school training. The number of A-school participants, both before and after reaching the fleet, is highest among recruits with 4-year obligations because of the sheer number of 4YO recruits.

The reason for the downward trend in participation rates is that later accessions have had less time to reasonably participate in post-fleet A-school. As recruits are tracked further into their careers, the amount of post-fleet participation is likely to increase. To provide a reasonable metric of post-fleet A-school attendance, a limit (such as within 10 years of accessions) should be used in future ESTF reports.



For the accessions examined, few recruits participate in post-fleet A-school courses, and recruits spend less UI and NUI time in those classes than in pre-fleet A-school courses. The chart on the left (right) shows the average time recruits spend under (or not under) instruction for pre-fleet and post-fleet A-school training. Of those who participate in these types of training, more UI and NUI time is spent in pre-fleet A-school than in post-fleet A-school. On average, recruits spend 111 days UI in pre-fleet A-school and 68 days UI in post-fleet A-school. For those in A-school courses, an average of 28 pre-fleet days and 15 post-fleet days are spent NUI.

For these charts, average time is calculated for those recruits who went through A-school training (as opposed to the entire accession cohort).

A backup slide lists examples of NUI time.

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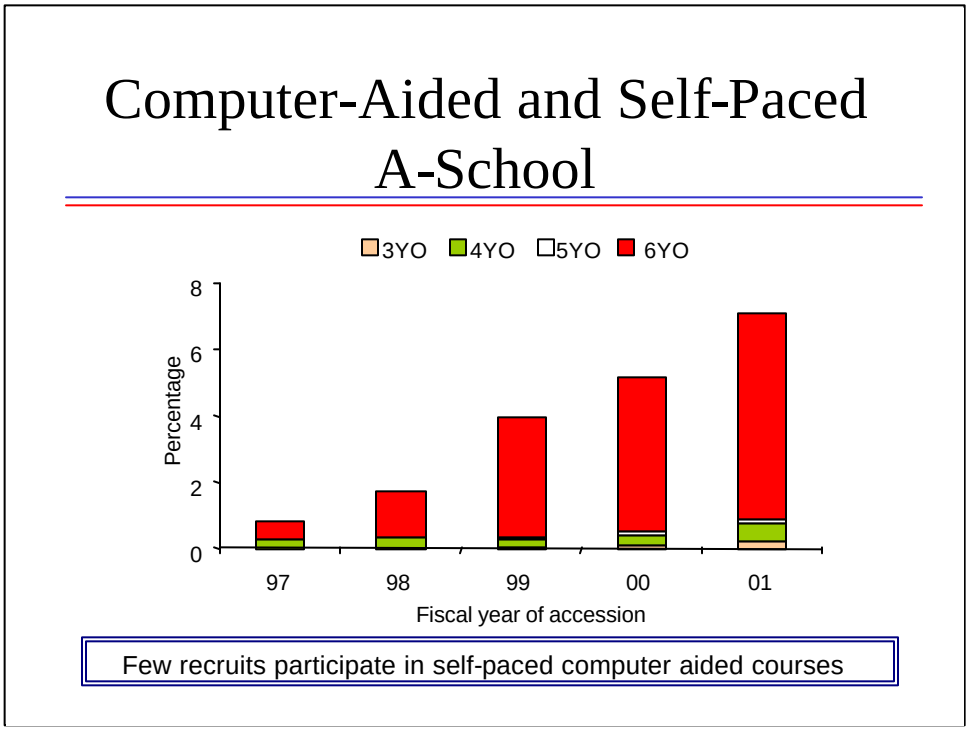
- Pre-fleet attrition rates
- Conclusions

NITRAS Has the Capability To Capture Electronic Learning

- Capability exists to capture formal and informal e-learning training
  - Including information on
    - Whether a class is computer-managed and self-paced
- However, not all e-learning training is captured
  - Particularly non-formal e-learning training
    - For example, community college courses on the internet
- Push to measure all e-learning
  - For example, the creation of a single e-learning system

The last initial skills training issue we discuss is whether the ESTF database captures or could capture e-learning training. CNA's ESTF training data are integrated from NITRAS data. NITRAS is structured to capture formal or informal e-learning. The course information in NITRAS includes whether a course was computer-aided and whether the course was self-paced. However, not all e-learning training is recorded, so existing NITRAS information on levels of e-learning may underrepresent the true level of e-learning. This is particularly true for non-formal training, such as community college courses taken over the internet. To address this problem, there is a push to record all completed e-learning courses, formal and informal, in each Sailor's electronic training jacket. Part of these efforts include the creation of a single e-learning system to facilitate collection of data to ensure that all e-learning is captured. With time, the NITRAS data set should provide more accurate e-learning trends and, consequently, so should the ESTF database.



This slide shows the percentage of recruits who reached the fleet after participating in self-paced, computer-aided A-school training. The self-paced, computer-aided course description suggests that these courses were based on e-learning. We show data for the FY97 through FY01 non-Gendet accessions because less than half of a percent of all recruits before then were in computer-aided and self-paced classes. Over this period, no accessions with 2-year obligations participated in self-paced, computer-aided A-school classes.

Most Navy training is instructor managed, and very few A-school classes are self-paced, computer-aided. Although the percentage of recruits participating in these e-learning courses is increasing, only 7 percent of FY01 accessions participated in computer-aided courses that were self-paced. Most of the computer-based classes are among 6YO accessions. Among 6YOs, the percentage of recruits engaging in self-paced, computer-aided courses has increased from 2 percent of FY97 6YO accessions to 32 percent of FY01 6YO accessions. Participating 6YOs spend an average of 101 days in these courses.

Of the 2,588 FY01 accessions who participated in computer-aided, self-paced courses, 65 percent were in a Surface Operations rating. The computer-aided, self-paced course taken by the most recruits is AETC (Advanced Electronic Technical Core)—a requirement for the ET and FC Surface Operation ratings.

We don't present participation rates for self-paced, computer-aided follow-on training because less than 1 percent of non-Gendet recruits participate in them.

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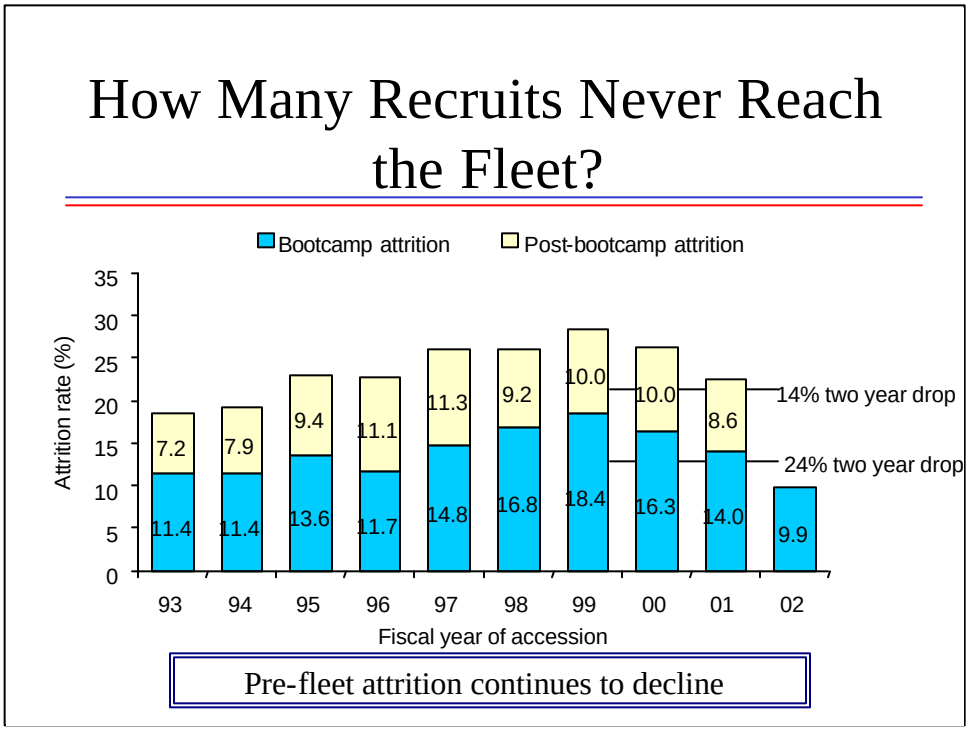
- Conclusions



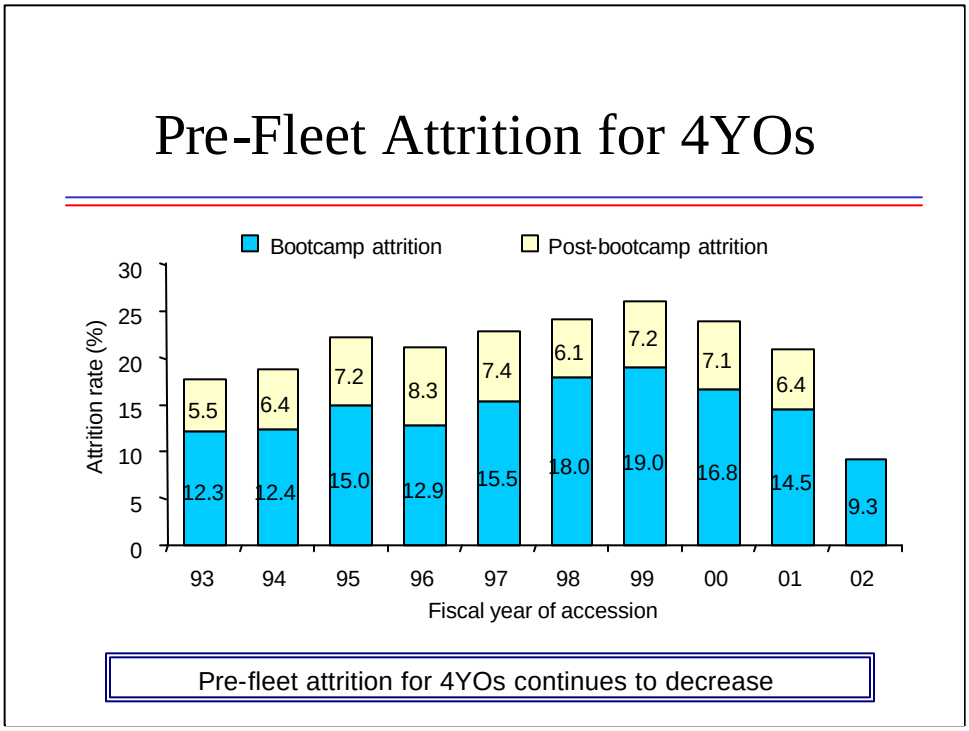
The last issue we analyze is attrition: what percentage of the recruits leave the Navy before reaching the fleet? We examine attrition because these recruits never serve in the fleet and represent a lack of a return on investment of recruiting, manning, and training resources.

This chart shows the percentage of non-Gendet accessions who left the Navy before their first fleet assignment. After increasing attrition rates through the 1990s, attrition rates decreased with the FY00 accessions. This decrease has continued with the FY01 accessions. In addition, there has been a recent decrease in post-bootcamp attrition.

As shown, 22.6 percent of FY01 accessions did not reach the fleet, with 62 percent of that attrition occurring during bootcamp. The FY01 attrition rate is 20 percent lower than the FY99 level, primarily from the recent decrease in both bootcamp and post-bootcamp attrition. FY01 accession attrition rates are only higher than those of the FY93 and FY94 accessions.

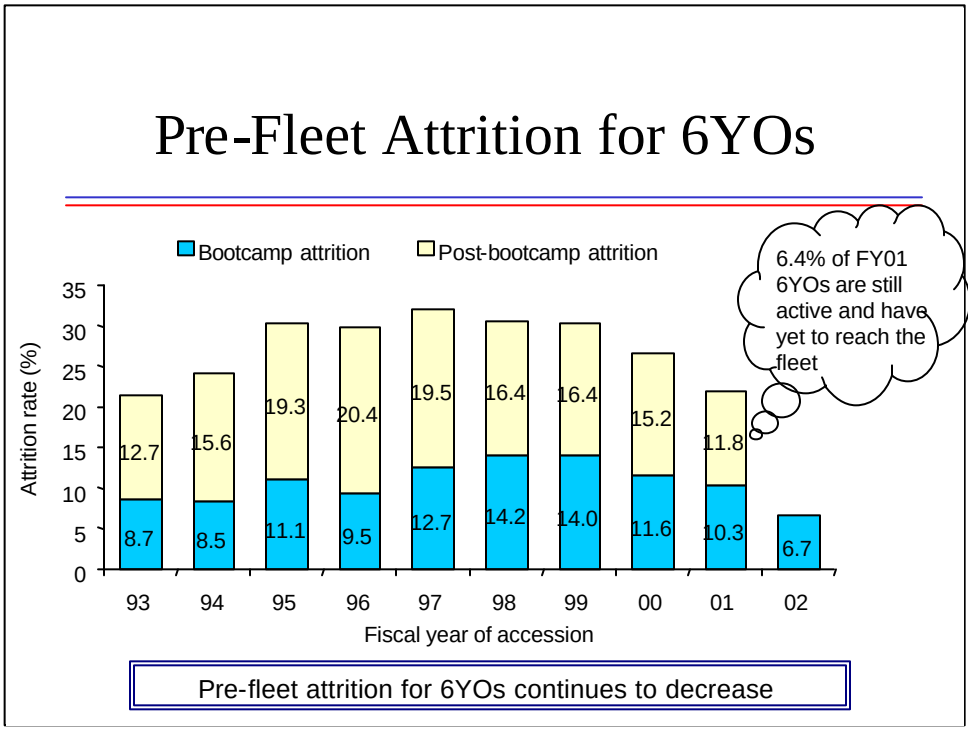
In the next two slides, we examine pre-fleet attrition for 4YOs and 6YOs. Backup slides show the 3YOs and 5YOs. Those slides show that the recent decrease in bootcamp attrition represents a decrease in attrition for all obligation lengths.

We do not show FY02 accessions post-bootcamp attrition rates because 16.1 percent are still active and have yet to reach the fleet.



This chart shows the percentage of 4YO non-Gendet recruits who left the Navy before reaching the fleet. Changes in non-Gendet 4YO pre-fleet attrition are driven by changes in bootcamp attrition. Among the 22 percent of FY01 accessions who did not reach the fleet, 67 percent of those left during bootcamp. Pre-fleet attrition has increased by 17 percent since FY93 accessions (18 to 21 percent). This upward trend seems to be reversing with the FY00 and FY01 accessions. Comparing FY97 accessions with FY01 accession, there has been a 6-percent drop in bootcamp attrition and a 14-percent drop in post-bootcamp attrition. A portion of these decreases are the result of recent improvements; both bootcamp and post-bootcamp attrition dropped from the FY00 to FY01 accessions. Bootcamp attrition for the FY02 accessions was even lower, at 9.3 percent. These findings suggests that the upward pre-fleet attrition trend in the 1990s has changed direction.

Almost all FY01 4YO accessions have reached the fleet—99.2 percent. Of FY02 4YO accessions, 4.3 percent are still active and have yet to reach the fleet.



This chart shows the percentage of 6YO recruits who left the Navy before reaching the fleet. Of all obligation lengths, the largest percentage of 6YOs attrite before reaching the fleet. Also, a higher proportion of 6YO accessions attrite after bootcamp and before reaching the fleet than during bootcamp. Although expected because 6YOs have longer training pipelines, high attrition rates are alarming because 6YOs usually represent the most skilled of recruits and are hard to recruit.

There has been a dramatic decrease in pre-fleet attrition for 6YOs. Pre-fleet attrition has dropped 8.3 percentage points from the FY99 to the FY01 accessions. The drop in pre-fleet attrition has been driven by the decrease in the post-bootcamp attrition rate, which is at a 9-year low. However, this rate may increase as the remaining 6.4 percent of 6YO FY01 accessions reach the fleet. Of FY02 6YO accessions, 53.9 percent are still active and have yet to reach the fleet.

Backup slides show attrition trends for 3YOs and 5YOs.

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- **Conclusions**

Conclusions

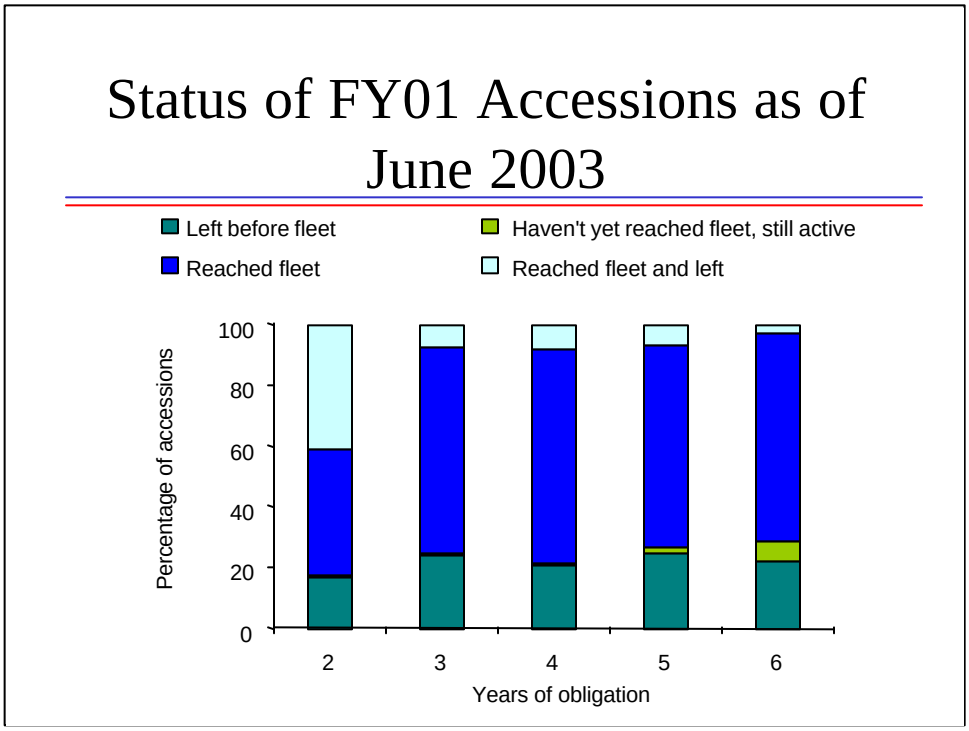
- Since the FY97 accessions, training improvements include:
  - Decreased time to the fleet
    - By 11 percent for non-Gendets
    - For 3YOs, 4YOs, 5YOs, and 6YOs
  - Decreased UI & NUI time for 4YOs, 5YOs, and 6YOs
- NITRAS documents self-paced, computer-aided formal training courses
  - Few recruits participate in these courses
- FY01 pre-fleet attrition is lower than FY99 and FY00 levels

Despite a slowdown in training improvements with the FY00 accessions, more recent accession data show a continuing improvement in training trends and attrition levels. With the FY01 accessions, time to the fleet decreased to a 6-year low of 11 months. The drop in time to the fleet was from a decrease in training time spent UI and NUI. These training improvements were consistent throughout the obligation lengths, but particularly significant for 4YOs and 6YOs.

The training data source for the ESTF database does collect information on how and by whom a course is taught. We find that very few recruits participate in
A-school training that seems to be based on e-learning (self-paced and computer-aided instruction). Participation in these courses is increasing, particularly for 6YOs.

Pre-fleet attrition represents a loss to the Navy in terms of lost recruiting and training investments. For more recent accession years, we find a decrease in attrition rates. From the FY99 to the FY01 accessions, bootcamp attrition decreased by 24 percent. In addition, post-bootcamp attrition has dropped to a 7-year low of 8.6 percent. Levels of bootcamp attrition for FY02 accessions suggest that the trend in lower pre-fleet attrition rates will continue among all obligation lengths.

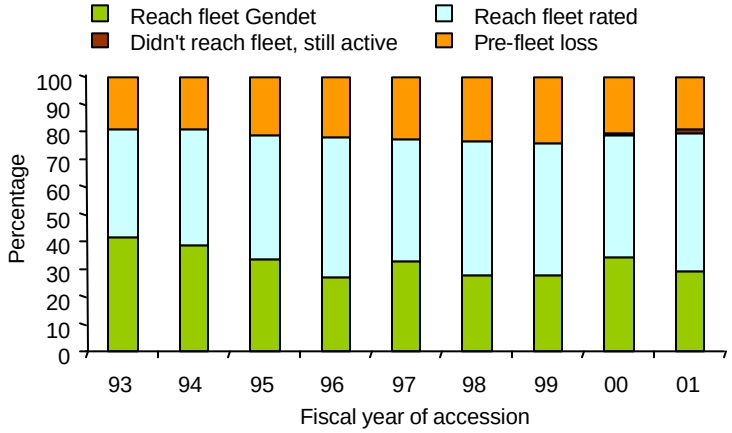
Backup Information



This chart does not include Gendets. Most Gendets are 2YOs, and the non-Gendet 2YO group is very small. Of the FY01 accessions, 130 2YOs were promised ratings, and 107 2YOs made it to the fleet. These 2YOs most likely changed obligation lengths when they were rated.

Of FY01 accessions, 2.1 percent of those with 5-year obligations were still active by September 2003, and 6.4 percent of 6YOs were still active.

Who Makes It to the Fleet?



This slide includes all accessions.

Navy Learning Centers and Corresponding Ratings

Aviation	ABE, ABF, ABH, AC, AD, AE, AG, AM, AME, AN, AO, AS, AT, AW, AZ, PR
Cryptology	CTA, CTI, CTM, CTO, CTR, CTT, EW
Engineering	BT, DC, EM, EN, FN, GS, GSE, GSM, HT, IC, MM, MR
Information Technology	IT (DP, DS, RM)
Naval Intelligence	IS
Seabees	BU, CE, CM, CN, EA, EO, SW, UT
Service Support	AK/SK, DK, DM, JO, LI, LN, MS, MU, NC, PC, PH, PN, RP, SH, SK, YN
Submarine	ET(SS), ET(SWS), FN, FT, MM(SS), MS, MT, SK, SN, STS, YN
Surface Combat Systems	ET, FC, GM, MN, OS, STG, TM
Surface Operations	BM, QM, SM, SN
Nuclear Engineering	MM, ET, EM
Force Health Protection	HM, DT
Security	MA

Months to Fleet by Rating Group

Group	1995	1996	1997	1998	1999	2000	2001
Aviation Technical Training	9.3	9.2	9.7	8.7	9.2	9.1	9.4
Cryptology	13.4	13.3	14.8	13.8	14.4	15.8	13.1
Naval Engineering	9.9	10.3	9.9	9.5	9.1	9.3	9
Information Technology	9.3	10.9	8.6	8.4	8.1	8.8	7.8
Naval Intelligence	10	10.7	10.6	9	8.7	8.1	7.8
Seabees and Facilities Engineering	6.9	7.4	7.7	8.1	7.9	7.8	7.7
Service Support	6.1	6.5	6.2	6.2	6.3	6.4	6.3
Submarine Learning Center	13.3	13.9	13.7	12.9	13.4	13.9	14.2
Surface Combat Systems	15.3	15.3	16.9	14.8	14.4	15.3	14
Surface Operations	6.1	5.9	5.7	6.2	6	6.2	6
Nuclear Engineering	23.4	23.4	23.6	23.3	22.9	23	22.8
Force Health Protection	9.1	10	11.4	11.1	11.1	10.2	10.5
Anti-Terrorism & Navy Security Forces	~	~	~	~	19.5	20.9	8.2

This table displays, by Navy-center-based rating group, average time to the fleet for non-Gendet accessions who reached the fleet. Months to the fleet for the Anti-Terrorism & Navy Security Forces rating group are intentionally blank for the FY95 to FY98 accessions. The MA rating is the only rate in this rating group. Until the FY99 accessions, only more senior Sailors were able to be MA rated, so there were no MA-promised accessions until then.

Traditional ESTF Rating Groups

Group	Ratings
Administration	DP, JO, LI, LN, MA, NC, PC, PN, RP, YN
Aviation maintenance	AD, AE, AM, AME, AMH, AMS, AS, AT
Aviation operations	ABE, ABF, ABH, AC, AG, AO, AW, PH
Cryptology	CTA, CTI, CTM, CTO, CTR, CTT, IS
Hull, mechanical and electrical	DC, EM, HT, IC, IM, ML, MR, OM, PM
Medical	DT, HM
Supply	DK, MS, SH, SK
Surface engineering	BT, EN, GSE, GSM, MM
Surface operations	ET, OS, RM (IT)
Surface combat systems	DS, EW, FC, GMG, GMM, OTA, OTM, STG
Other	AK, AZ, BM, BU, CE, CM, CN, EA, EO, FT, MN, MT, MU, PR, QM, SM, STS, SW,TM, UT

For FY93-FY95 accessions, recruits rated as DP are included in the Administration category. In 1996, the DP rating merged with the RM rating under the RM name. In 1999, the RM rating was renamed IT.

Previous CNA analysis [2, 3] examined time to the fleet and initial training breakdowns by these rating groups. These groupings are based on Navy ratings with similar job-related characteristics. The next slide shows time to the fleet for these traditional ESTF rating groups.

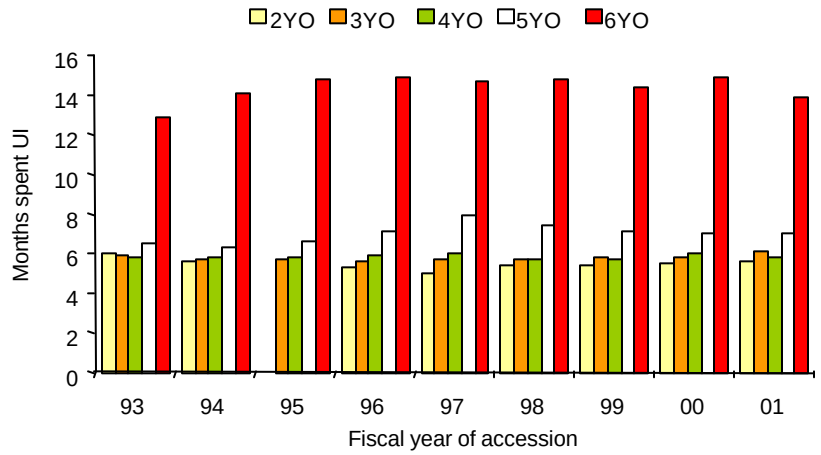
To provide trends corresponding to the Navy's learning centers, we changed how we classify the ESTF rating groups in this annotated briefing. That classification is shown on a previous backup slide.

Months to Fleet by Traditional ESTF Rating Group

Group	1995	1996	1997	1998	1999	2000	2001
Administration	6.2	6.4	6.7	6.8	6.5	6.8	7.1
Aviation maintenance	10.1	10.1	10.3	9.6	10	9.9	10.1
Aviation operations	8.5	8.3	8.8	7.6	8.4	8.4	9
Cryptology	12.9	13.4	14.4	12.9	13.2	14.4	11.7
Hull, mechanical and electrical	12.1	13.9	14.8	14.6	14	14.7	12.3
Medical	9.3	10.2	11.6	11.1	11.1	10.3	10.5
Supply	6.3	6.6	6.1	5.9	6.2	6.5	6.3
Surface engineering	13.5	13.4	14.5	14.1	13.8	15	12.5
Surface operations	12.3	12.9	14.2	12.5	11.6	12.7	12.4
Surface combat systems	18.7	18.6	19	18.2	18.3	18.5	17.1
Other	8.1	8.8	8.7	8.4	8.1	8.8	8.9

This tables displays, by rating group, average time to the fleet for non-Gendet recruits who reached the fleet.

How Does Time Spent UI Vary With Contract Length?



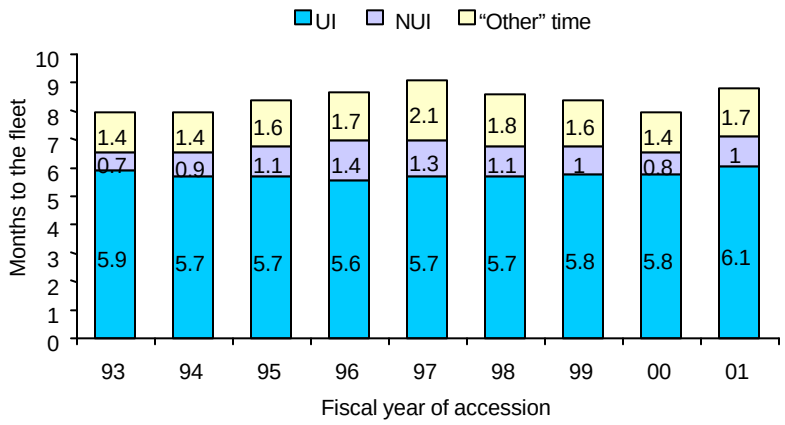
We include the FY01 accession cohort because only 2.4 percent of all accessions have yet to reach the fleet.

Examples of NUI and "Other" Time

Examples of NUI time	Examples of "Other" time
Legal reason	Limited duty
Holiday stand down	Permanent change of station move
Medical reason	Temporary duty
Security clearance is not granted	PSI duty
UA for 24 hours prior to convene	Hospitalization
Backlog of excess student input	
Between courses	
Administrative leave or reason	
Physical training test failure	
Discipline action	
Awaiting discharge	
Awaiting transfer orders	
Substance abuse / Rehabilitation	

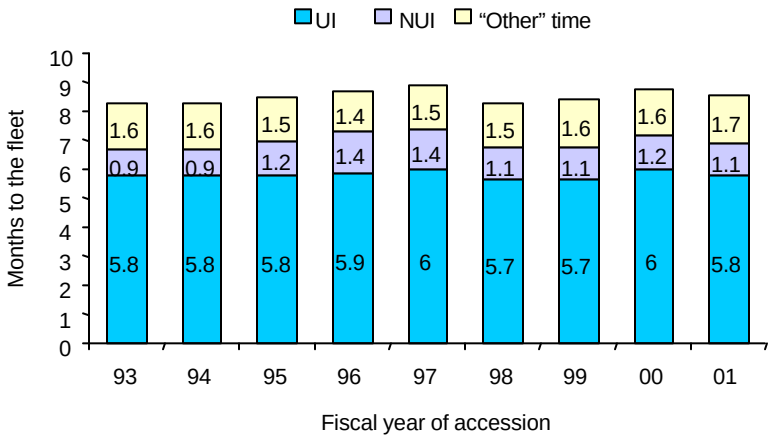
This table shows some examples of NUI and "other" time. NUI time is time spent at school but not in training. We computed "other" time as time to the fleet less training time.

How Recruits Spend Their Pre-Fleet Time: 3YOs

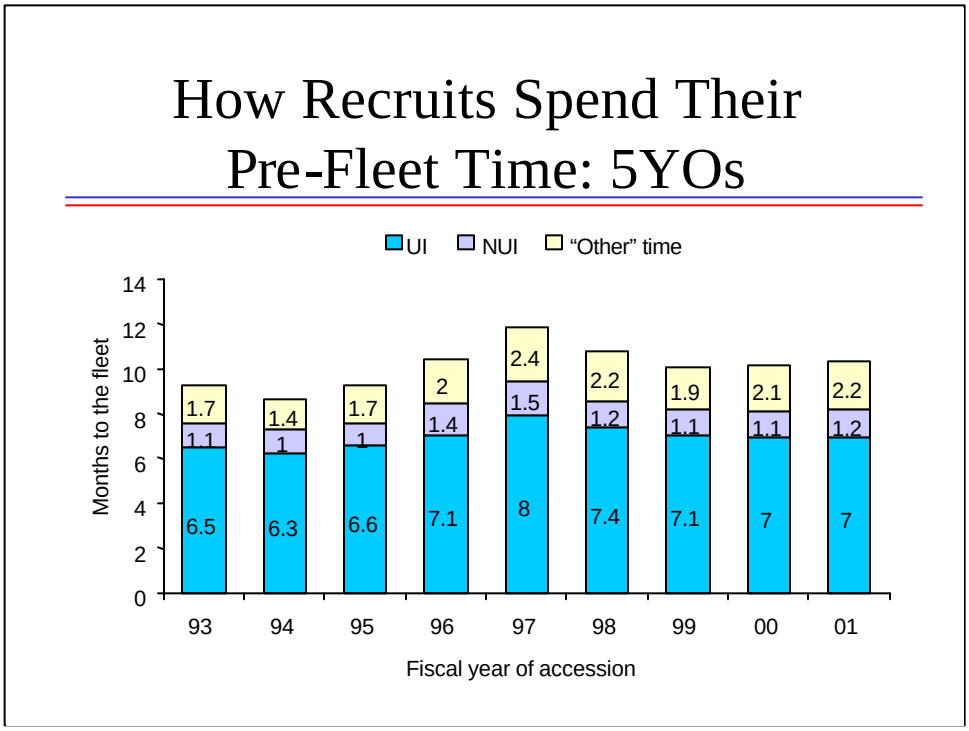


We include the FY01 accession cohort because only 0.8 percent of 3YO accessions have yet to reach the fleet.

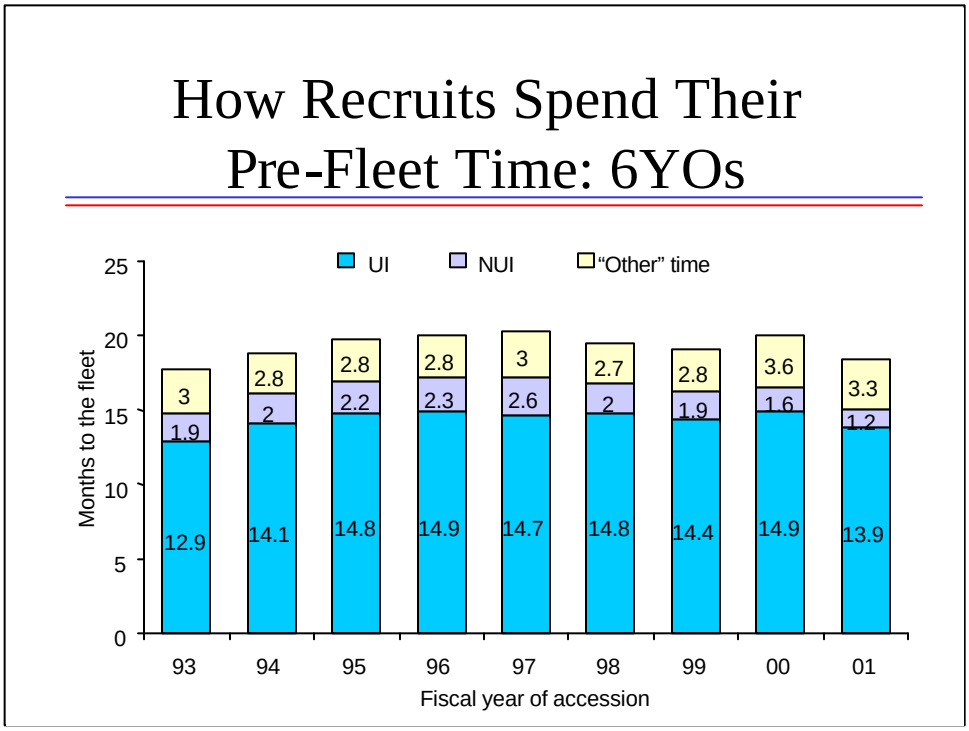
How Recruits Spend Their Pre-Fleet Time: 4YOs



We include the FY01 accession cohort because only 0.8 percent of 4YO accessions have yet to reach the fleet.

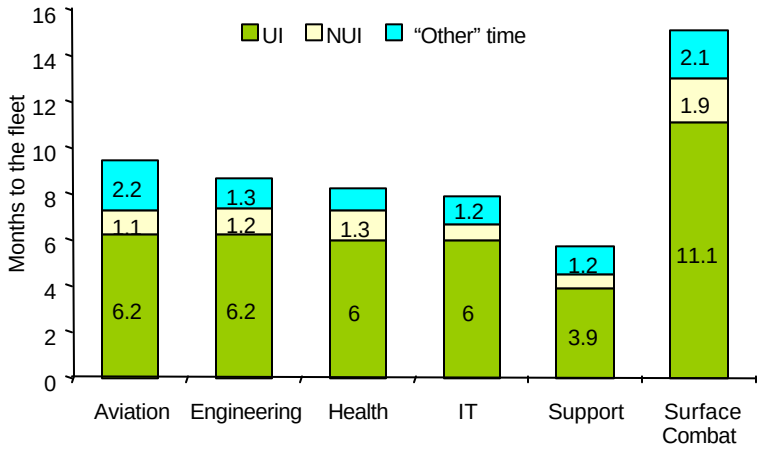


We include the FY01 accession cohort because only 2.1 percent of 5YO accessions have yet to reach the fleet.



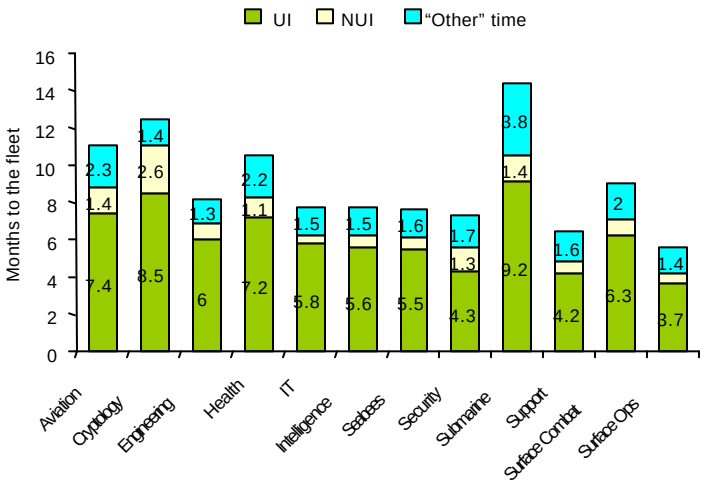
We include the FY01 accession cohort because only 6.4 percent of 6YO accessions have yet to reach the fleet.

How Recruits Spend Their Time: FY01 3YOs, by Rating Group

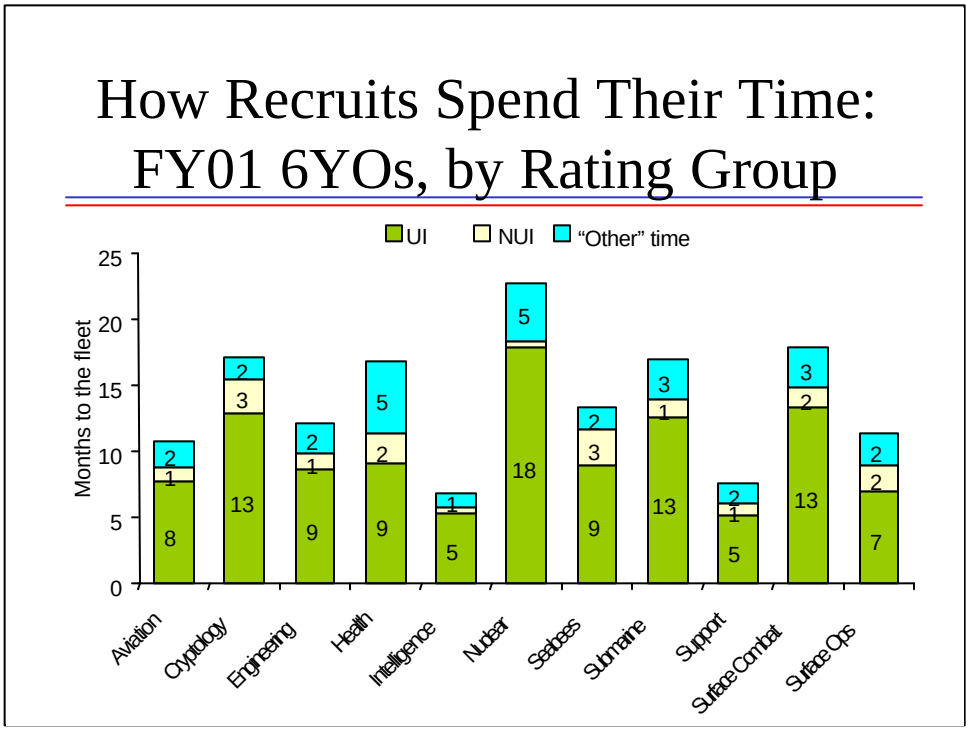


Of the FY01 accessions, 0.8 percent of 3YO accessions have yet to reach the fleet. Most likely, 3YO-rated recruits became rated after enlistment and changed their obligation length. In the data, however, they are still classified as 3YOs. There were no Cryptology, Intelligence, Nuclear, Seabees, Submarine or Surface Operations FY01 3YOs. We did not include information from the one Security FY01 3YO accession.

How Recruits Spend Their Time: FY01 5YOs, by Rating Group



Of FY01 accessions 2.1 percent of 5YO accessions have yet to reach the fleet. There were no Nuclear FY01 5YOs.



Of FY01 accessions, 6.4 percent of 6YO accessions have yet to reach the fleet. The IT and Security rating groups were not included because each had only 2 FY01 6YOs.

Ratings with Largest Increases in UI Time

	Fleet accessions			From FY97 to FY01		From FY00 to FY01	
Rating	FY97 arrivals	FY00 arrivals	FY01 arrivals	Increase in months	Percentage increase	Increase in months	Percentage increase
JO	20	20	15	2.2	33	-0.1	-1
PH	38	11	38	1.6	34	0.2	3
PC	18	34	15	1.4	58	0.2	6
UT	76	33	68	1.3	28	0.2	3
STS	285	255	231	1.3	18	0	0
AT	1176	1185	1019	1.1	13	1	11
LI	18	10	10	1	21	0.4	8
CE	96	19	47	0.7	13	-0.1	-2
AO	587	798	856	0.6	14	0.3	7
EO	109	38	113	0.6	11	-0.3	-5

These ten ratings account for 2,412, or 9 percent, of all FY01 recruits who made it to the fleet as non-Gendets. For the JO, CE, and EO ratings, UI time decreased from the FY00 to FY01 accessions.

Rating with Largest Increases in NUI Time

	Fleet accessions			From FY97 to FY01		From FY00 to FY01	
Rating	FY97 arrivals	FY00 arrivals	FY01 arrivals	Increase in months	Percentage increase	Increase in months	Percentage increase
JO	20	20	15	1.7	340	-1.2	-35
EW	161	159	228	0.9	60	0.4	20
CTO	151	140	222	0.6	27	-0.6	-18
MR	61	44	122	0.5	45	0.5	45
CTR	244	300	263	0.5	14	-0.6	-13
HM	2023	1842	2193	0.4	44	0.2	18
MN	38	48	66	0.3	60	0	0
MU	37	22	49	0.3	60	0.1	14

These eight ratings account for 4,051 recruits, 16 percent of all FY01 recruits who made it to the fleet as non-Gendets. For the JO, CTO, and CTR ratings, NUI time decreased from the FY00 to FY01 accessions. We include only eight ratings because the next largest increase in NUI time, 0.1 month, was true for six ratings (EA, MS, PC, UT, PH, and CTM).

Ratings with Largest Recent Decreases in UI Time

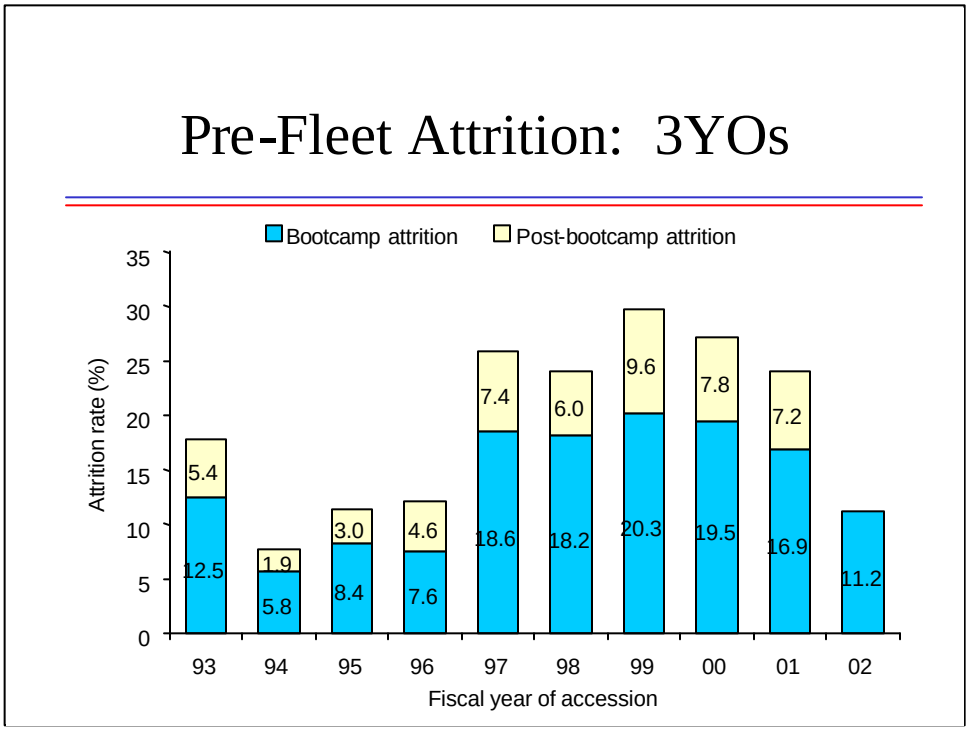
	Fleet accessions			
Rating	FY00 arrivals	FY01 arrivals	Decrease in months	Percentage decrease
MA	7	210	2.9	41
EM	865	1152	2.4	17
CTI	173	127	1.9	9
MM	1703	1936	1.7	13
CTM	86	135	1.6	16
IC	252	568	1.1	12
STG	336	416	0.9	8
CTR	300	263	0.8	9
AE	399	613	0.7	8

This slide shows the ratings with the largest declines in UI time when comparing the FY00 and FY01 accessions. These nine ratings account for 5,514 recruits, 22 percent of all FY01 recruits who made it to the fleet. We include only nine ratings because the next largest recent decrease in UI times, 0.6 month, was true for four ratings (AG, PR, DT, and MT).

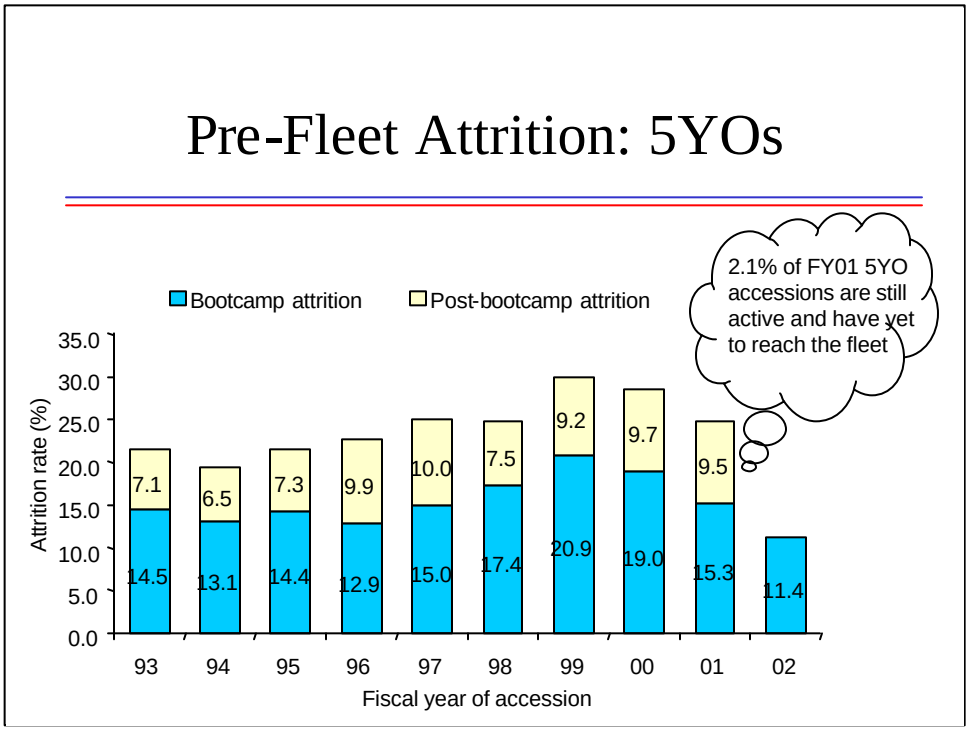
Ratings with Largest Recent Decreases in NUI Time

	Fleet accessions			
Rating	FY00 arrivals	FY01 arrivals	Decrease in months	Percentage decrease
LN	2	3	2.6	96
CTI	173	127	1.3	36
MA	7	210	1.3	59
CTT	51	105	1.3	29
CTM	86	135	1.2	34
JO	20	15	1.2	35
CE	19	47	0.9	56
CN	58	166	0.8	62
FC	1258	917	0.8	32
MT	150	153	0.7	32

This slide shows the ratings with the largest declines in NUI time in comparing the FY00 and FY01 accessions. These ten ratings account for 1,870 recruits, 7 percent of all FY01 recruits who made it to the fleet.



We include the FY01 accession cohort because only 0.8 percent of 3YO accessions have yet to reach the fleet. Of FY02 3YO accessions, 9.2 percent are still active and have yet to reach the fleet.



We include the FY01 accession cohort because only 2.1 percent of 5YO accessions have yet to reach the fleet. Of FY02 5YO accessions, 10 percent are still active and have yet to reach the fleet.

References

[1] Steven W. Belcher, David L. Reese, and Gregory A. Lewis. *Trends in the Training Recruits Receive Before Their First Fleet Assignments,* Dec 1999 (CNA Annotated Briefing 99-150)

[2] Carol S. Moore and David L. Reese. *Trends in Navy Initial Skills Training: Evidence from Street-to-Fleet Data,* May 2001 (CNA Annotated Briefing D0004070.A1)

[3] Diana S. Lien and David L. Reese. *Trends in Pre-Fleet Training and Attrition: Street-to-Fleet Report 2002,* Nov 2002 (CNA Annotated Briefing D0006842.A2)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