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Active Duty Individual Manpower Augmentation: Selection and Career Impact

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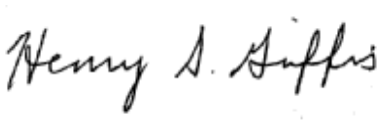

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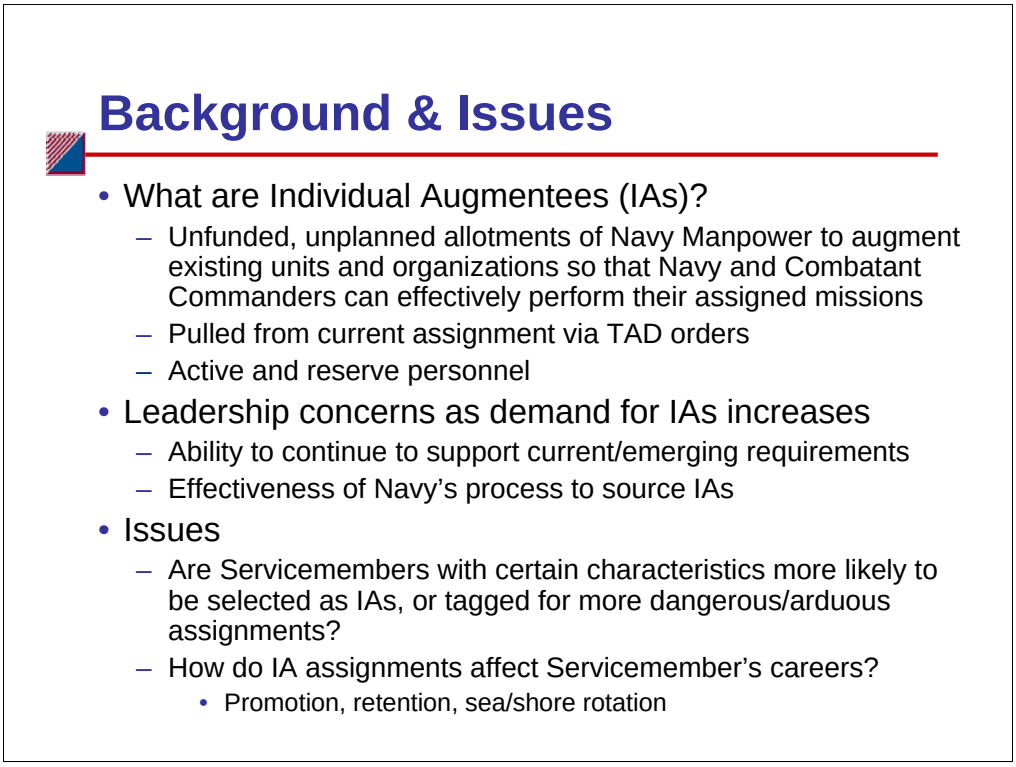

As the U.S. and coalition forces continue to prosecute the Global War on Terrorism and support other contingency operations around the world, the demand for Navy manpower—from both the Active and Reserve Components—to augment deployed forces from all Services has increased dramatically. These manpower augmentation requirements represent unfunded, unplanned, but necessary allotments of Navy personnel to augment existing units and organizations so that Navy and Combatant Commanders can effectively perform their assigned missions. Active duty Sailors and officers who are pulled from their current commands and sent on Temporary Additional Duty (TAD) orders to fill these requirements are known as Individual Augmentees (IAs).[1]

With this increased demand has come concern about the Navy's ability to continue to effectively and efficiently provide manpower to support these requests. The Assistant Deputy Chief of Navy Operations, Manpower and Personnel (N1B) asked CNA to support Task Force Individual Augmentation (TF IA) in examining the sourcing and selection process that the Navy uses to fill IA requirements. As part of this support, we were asked to examine two issues. The first was whether Servicemembers with particular characteristics were more likely to be selected for IA assignments. Some characteristics, such as paygrade and occupation, may be explicit requirements of the IA request, while others, such as race/ethnicity and marital status, are not. Thus, our tasking was to determine whether active duty personnel were disproportionately selected for IA assignments, or assigned to lengthier or more dangerous locations based on personal characteristics that are not material to the IA assignment itself.

The second issue was whether IA assignments have affected the career progression of active duty Servicemembers. Of particular interest are the effects on retention, promotion, and sea/shore rotation for active duty enlisted Sailors and officers.

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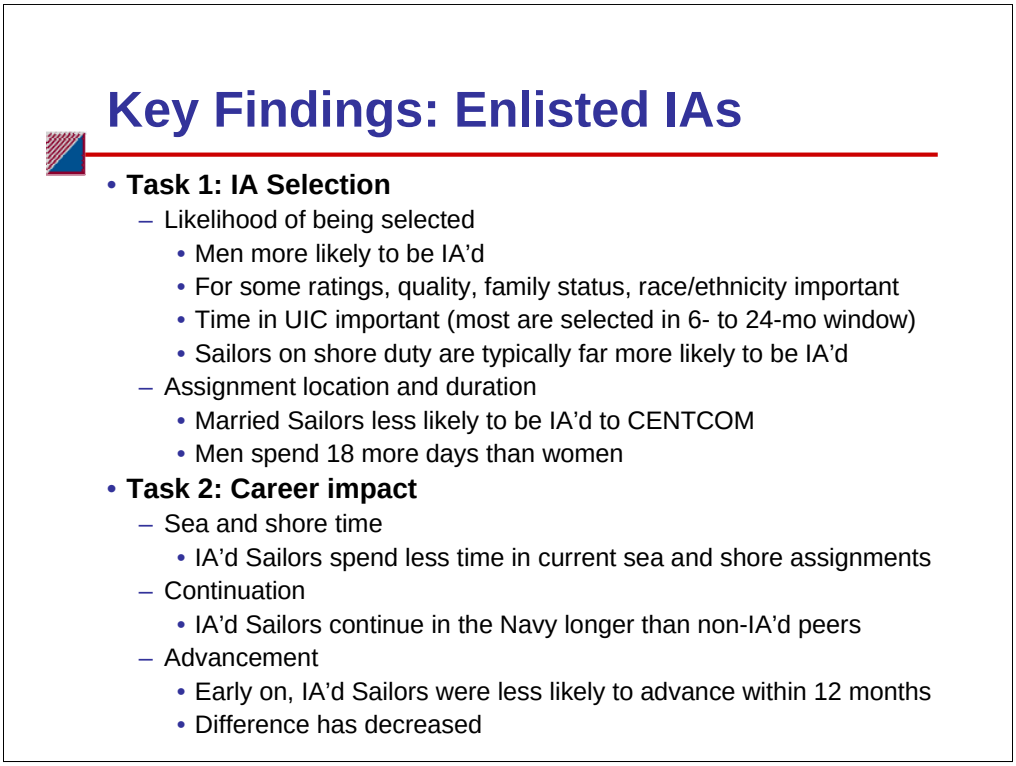
1. Active Component (AC) personnel who deploy as existing units (e.g., a Seabee unit) to fill manpower requests are not considered IAs.



This slide shows our key findings for enlisted IAs. In looking at IA selection, we found some differences in the probability of being selected for an IA assignment based on nonmaterial characteristics. In particular, we found that men were more likely than women to serve on IA assignments. For some ratings, we also found differences in the probability of serving on IA assignments based on family status, quality, and race/ethnicity. For example, married Sailors in the Information Systems Technician (IT) rating were 31 percent less likely than their unmarried peers to serve on IA assignments, whereas those characterized as highest quality were 30 percent less likely than their peers. Most of these differences, however, were not consistent across all ratings. For example, Hispanics in the Master-at-Arms (MA) rating were 14 percent more likely than white MAs to be selected, whereas Hispanics in the Operations Specialists (OS) rating were 11 percent less likely. Further, we found that, in general, Sailors on shore duty were more likely to be IA'd; Seabees were the only exception.

In looking at what point a Sailor was more likely to be selected for an IA assignment, we found that most Sailors were selected during the window from 6 to 24 months at their Unit Identification Code (UIC), indicating that commands are not selecting Sailors who have just reported aboard or those nearing the ends of their tours.

We found that married Sailors were less likely than single Sailors to be IA'd to U.S. Central Command (CENTCOM), and that men, on average, spend 18 more days on assignment than women do.

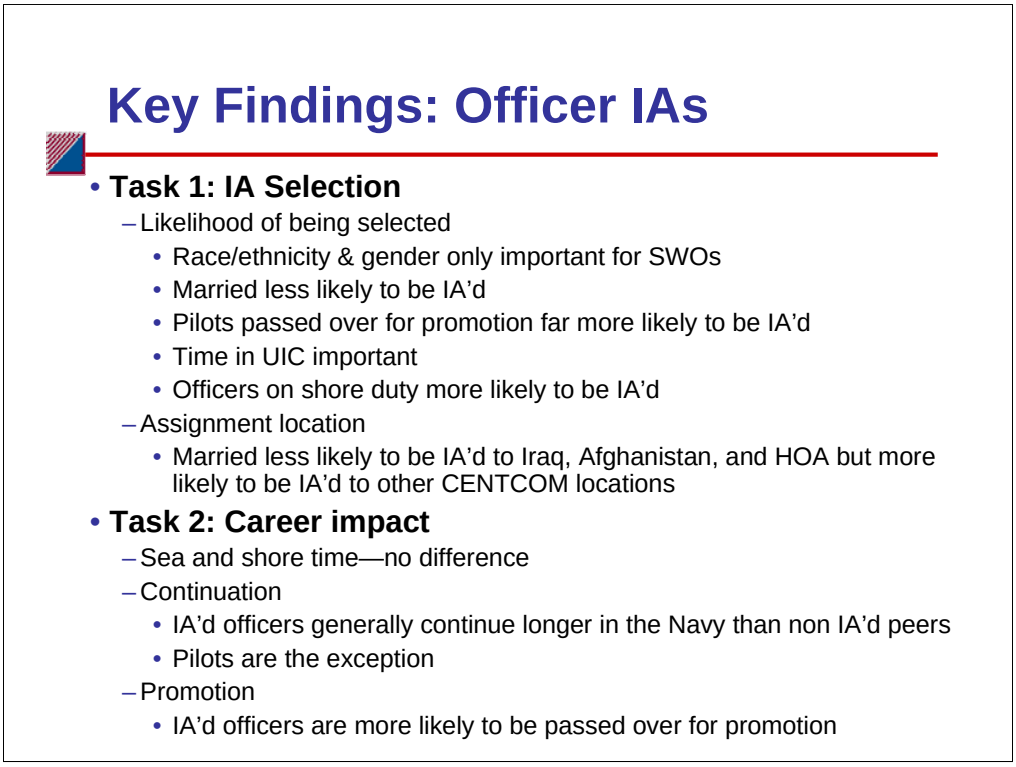
We need to caveat these results by pointing out that, although we controlled for many factors in our analysis, we did not have data on who volunteered for IA assignments. Thus, we do not know what impact volunteerism had on selection outcomes. It is also possible that other factors not available in our data (e.g., specific skill requirements beyond the rating level) could have restricted the eligible pool for certain assignments and may explain some of these results.

We caution against concluding that, because we were not able to find a statistically significant difference for some factors, a true difference does not exist. In most cases, there have been too few IAs with the given characteristics to be able to produce unambiguous results. As more Servicemembers are IA'd, which provides more data, more definitive results will be possible.

In looking at what happened to enlisted IAs after their return, our results show that Sailors who were IA'd experienced shorter sea and shore rotations than their non-IA'd peers. For those on sea duty when IA'd, this may be perceived as a benefit since they roll to shore duty faster than their peers. This may not be the case for those on shore duty when IA'd. Because most IA assignments are counted as sea duty, these Sailors may feel cheated in having their shore time cut short and returning to sea duty faster than their non-IA'd peers.

Our results show that Sailors who have gone on IA assignments have slightly higher continuation rates (which reflects both attrition and retention behavior) than those who have not. We believe, however, that this may not be a meaningful comparison because the IA selection process acts as a screen by weeding out Servicemembers with circumstances (e.g., medical problems, family issues) that may cause them to leave the Navy at higher rates.

Finally, in the area of advancement, after controlling for relevant factors such as Sailor quality as indicated by prior speed of promotion, we measure whether Sailors who had been IA'd were more or less likely to promote within 12 months of deployment when compared with their non-IA'd peers. We find that both mid-career and senior enlisted Sailors who were IA'd in an earlier timeframe were less likely to promote when compared with their non-IA'd peers. But we find that this differential has decreased over time. For instance, we predict that, holding all else constant, E4–E5 Sailors who were deployed in the first quarter of FY05 were 15 percent less likely to promote than their non-IA'd peers, while Sailors who deployed one year later were just as likely to promote within 12 months as their non-IA'd peers. A similar phenomenon exists with promotion to senior ranks. IA'd Sailors in paygrades E6 through E8 who were IA'd in early FY05 were 36 percent less likely to promote than their non-IA'd peers, but that differential had been reduced considerably 1 year later; IA'd Sailors deployed in early FY06 were 24 percent less likely than their non-IA'd peers to promote. Combined, these results indicate that, early on, IA'd Sailors (and senior enlisted more so than mid-career ones) were at a disadvantage in terms of promotion, but issues related to their promotion have been or are in the process of being addressed.



This slide shows our key findings for officer IAs, which have many similarities to our enlisted findings. For example, married officers, in general, are less likely to serve on IA assignments. Time in UIC was an important consideration in the selection of IAs, with most IAs having served between 6 and 24 months at their current duty assignment when selected. Pilots on shore duty are the exception since those with more than 24 months in their UIC were far more likely to be IA'd than Pilots with shorter tenures.

Race/ethnicity was a significant selection criterion only for Surface Warfare Officers (SWOs), but the effect differed by whether the officer was on sea or shore duty at the time of selection. Similarly, gender was only significant for SWOs: men were more likely to be IA'd while on shore duty, but there was no difference between men and women SWOs on sea duty.

In general, being passed over for promotion was not a selection criterion; the one exception is that Pilots who were on sea duty at the time of selection were far more likely to be selected if they had been previously passed over. And, similar to enlisted, officers on shore duty were more likely to be IA'd than those on sea duty.

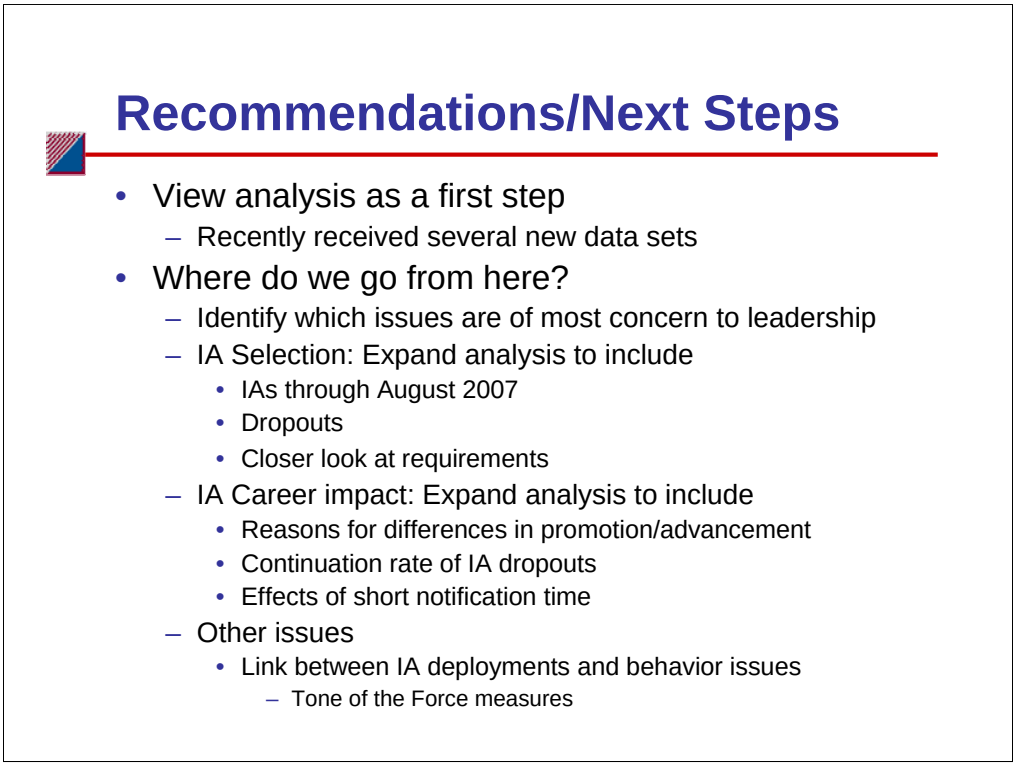
Similar to enlisted, we need to caveat these results by pointing out that although we controlled for many factors in our analysis, we did not have data on who volunteered for IA assignments. Thus, we do not know what impact volunteerism had on selection outcomes.

Married officers were less likely to be IA'd to Afghanistan, Iraq, and the Horn of Africa (HOA) but more likely to be IA'd to other CENTCOM locations than their single peers.

We found no differences in the duration of IA assignments or the length of sea or shore tours of IA'd officers. And, similar to enlisted Sailors, IA'd officers tend to have higher continuation rates. The notable exception is Pilots; those IA'd have lower continuation and this differential increases significantly with time (i.e., difference at 24 months is greater than at 12 months).

Also similar to enlisted Sailors, we found that when we control for relevant factors, including whether the officer had previously been passed over for promotion, IA'd officers are more likely than their peers to be passed over for promotion, especially those who were on sea duty when IA'd. Once again, the exception to this finding is Pilots, who were more likely than their non-deployed peers to be passed over if they were on shore duty when IA'd. While there were relatively few Pilots on sea duty when IA'd, we found that they were less likely than their non-IA'd peers to be passed over for promotion.

Given that IA'd Servicemembers are more likely to fail to be advanced after an IA assignment, it is somewhat surprising that they also have higher continuation rates. We suspect, however, that these results are biased by the fact that IA'd Servicemembers are deployed for several months, often as long as a year. Since our largest sample of IA'd Servicemembers includes those with the shortest observation lengths, these results may change as we are able to follow more IA'd Servicemembers for longer periods of time.



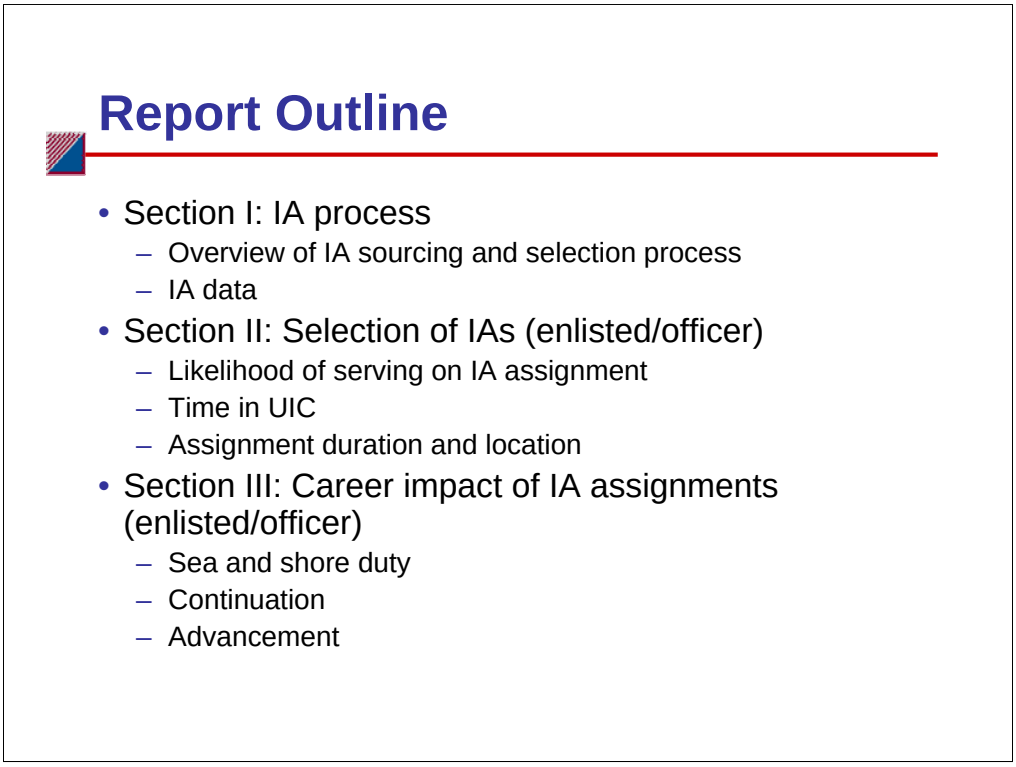
We view this work as a first step in examining these phenomena. Our goal was to identify issues that may potentially be of concern to Navy leadership. As highlighted in the preceding slides, we believe we've uncovered several issues that fall into this category.

One reason we feel that this work represents a first step is that we were unable to analyze all the available data. We recently received a data set from PERS-463 that contains (1) IA orders through August 2007, (2) listing of Servicemembers who were selected for IA assignment but never deployed, and (3) requirements information for each IA assignment. We had hoped to include these data in our analysis but were unable to obtain them in time for use in this phase of the analysis.

If leadership views any of these findings as problematic, we recommend that they be further investigated using these additional data. To expand the investigation of IA selection, we would update our analysis to include recent IAs (January–August 2007) as well as IA dropouts since these Servicemembers were originally selected for IA assignment. We would also take a closer look at the job requirements to see if there are other criteria or restrictions that may limit the eligible selection pool.

To expand the investigation of career impact, we would try to identify reasons for differences we see in promotion/advancement. We would also look at the continuation rates for IA dropouts to determine if the selection process acts as a screening mechanism that may explain why IAs have higher continuation rates.

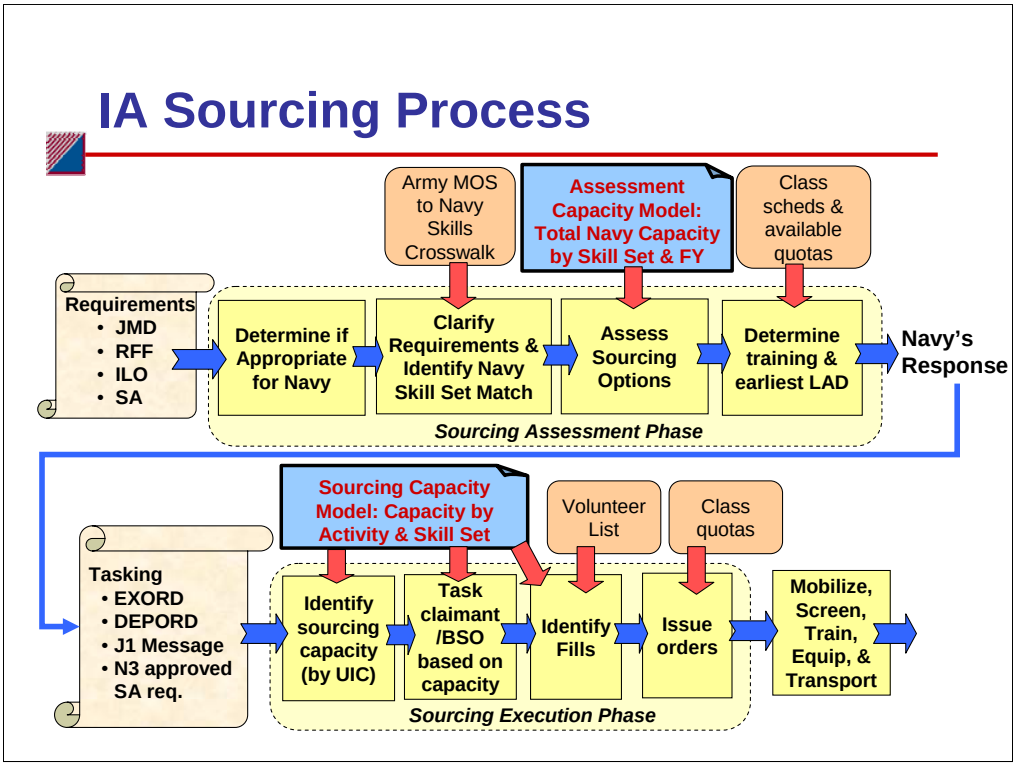
Finally, we could also use these new data to examine other relevant issues. One of potential interest is to see if there is a correlation between IA deployments and undesirable behavior incidences, such as those monitored in the Navy's Tone of the Force analysis. We could also study the effects of notification time on Servicemembers' decisions to stay Navy.



The remainder of this document comprises three sections. The first provides a brief overview of the process that the Navy uses to source IA requirements and then outlines the data that we used in our analyses.

The second section describes our study of IA selections. We begin with our analysis of enlisted IAs, turning first to our findings concerning the likelihood of being selected based on personal characteristics, followed by our results concerning the point in a Sailor's tenure in his or her UIC at which an IA selection is made, and ending with a look at whether the duration and location of an assignment depend on the IA's personal characteristics. We then present companion results for officer IAs.

The third section describes our study of how IA assignments have affected careers. We first report our findings on the effects of an IA assignment on the length of sea and shore duty. We then look at how the continuation rates of IAs compare with those of Servicemembers with similar characteristics who have not had an IA assignment. Next, we look at the effects of IA assignments on advancement and promotion. As before, we first present results for enlisted IAs followed by those for officer IAs.



The process through which the Navy responds to manpower augmentation requests and selects individuals to fill approved assignments has evolved over the past few years. This slide depicts our interpretation of the current IA sourcing process. We view this process as consisting of two main phases: a sourcing assessment phase and a sourcing execution phase. In the sourcing assessment phase, the Navy evaluates incoming requests and develops a response. There are three types of manpower augmentation requests: Joint Manning Documents (JMDs), Requests For Forces (RFFs),[1] and Navy-to-Navy support (also known as Service Augmentation (SA)). They come to the Navy through different channels. Requests to fill temporary manpower requirements on JMDs come from the Joint Staff (J1). RFFs go from combatant commanders to Joint Forces Command (JFCOM), which, in turn, farms them out to the Services and other component commands. U.S. Fleet Forces Command (FFC) receives the requests to the Navy. Any Navy command can submit a request for temporary manpower augmentation. These requests go up through the unit's chain of command with final approval provided by OPNAV N3.

Both the process and the roles that commands play in the process depend, in part, on the type of request. In general, once a request arrives, the first step is to determine if the IA job is appropriate for Navy personnel (i.e., combat support or combat service support). If so, the next step (especially for RFFs) is to clarify the requirement. Because many IA assignments are for jobs that have traditionally been filled by Army personnel, the job description and required skills set are often defined using Army terminology. The Navy must translate these requirements into its own terms and determine which Navy community has the skill set that most closely matches the job requirements. In most cases the match is not perfect, so the Navy must determine what training is needed to fill the gaps.

Once the Navy has determined the type of individual (e.g., rating) that should fill the assignment, the next step is to determine if the Navy has the people (i.e., capacity) to fill the requirements. IA capacity models exist to help leadership determine how many Servicemembers in each community (in both Active and Reserve Components) are available for IA assignments. Using this information

along with data on training availability, the Navy puts together a response on what it can and cannot provide. This response goes to the Joint Staff (J1) for JMD requests and Joint Staff (J3) and JFCOM for RFFs. In actuality, many of these steps involve back-and-forth negotiations between the Navy and these commands. For example, the Navy may offer to fill a requirement under the condition that the deployment date be pushed back to allow for more training. In most cases, when the Navy signs up to source an IA request, it implicitly agrees to fill that assignment for the duration of the requirement. This means that the Navy will need to select additional Servicemembers in the future to keep these assignments filled as the current IAs rotate back.

In the sourcing execution phase, the Navy responds to official tasking (based on the results of the assessment phase) and selects individuals (or units) to fill requirements. The official tasking comes in the form of an EXORD or DEPORD for RFF requirements, a Joint Staff J1 message for JMD requirements, and OPNAV N3 approval for SA requirements. In developing a sourcing plan to fill augmentation requests, the Navy (OPNAV N3, FFC, and community managers) determines the best mix of active and reserve personnel to fill the job requirements. Requirements that are assigned to the Active Component (AC) go to FFC for sourcing;[1] those assigned to the Reserve Component (RC) go to COMNAVRESFORCOM. FFC, in turn, allocates the AC requirements to Navy manpower claimants (also known as budget submitting offices). Rules governing the allocation of these requirements have changed over the years. Early on, the Navy would fair-share requirements across all claimants. Now it uses the capacity models to determine where capacity for each community/skill set exists and tasks those claimants accordingly.

The claimants, in turn, task the TYCOMs and individual commands to provide names to fill a set of assignments. Commands are supposed to first ask for volunteers and then select people based on skill set requirements. The Navy also maintains a volunteer web site,[2] and the claimants receive this information on a weekly basis. The names provided by the commands are passed back through the claimants, who are responsible for verifying that the selected Servicemembers are qualified. If so, the names are forwarded to PERS-46 where TAD orders are issued.

For IA assignments that require long training tracks, Navy policy calls for commands to select an alternate in case the primary Servicemember is unable to deploy. Alternates will attend all predeployment training so that, if needed, they can be deployed on the same time schedule.

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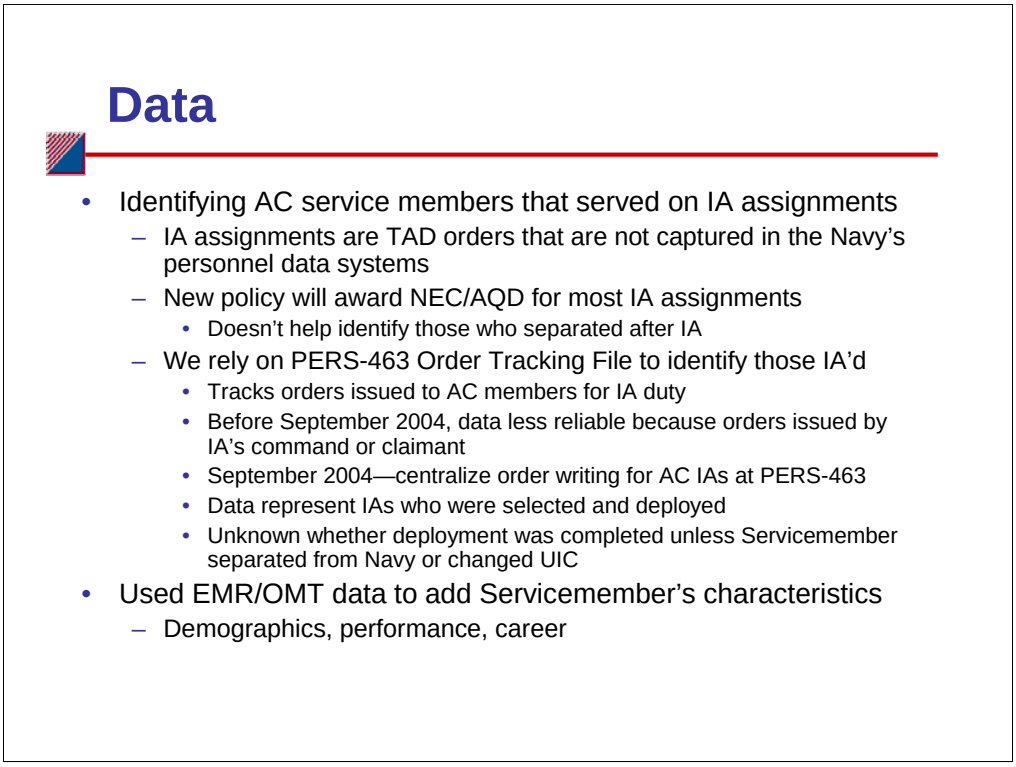
1. Until recently, AC requirements went to PERS-46 for sourcing. The move to FFC aligns this function with FFC's Global Force Management responsibilities.

2. The volunteer web site started during FY06.



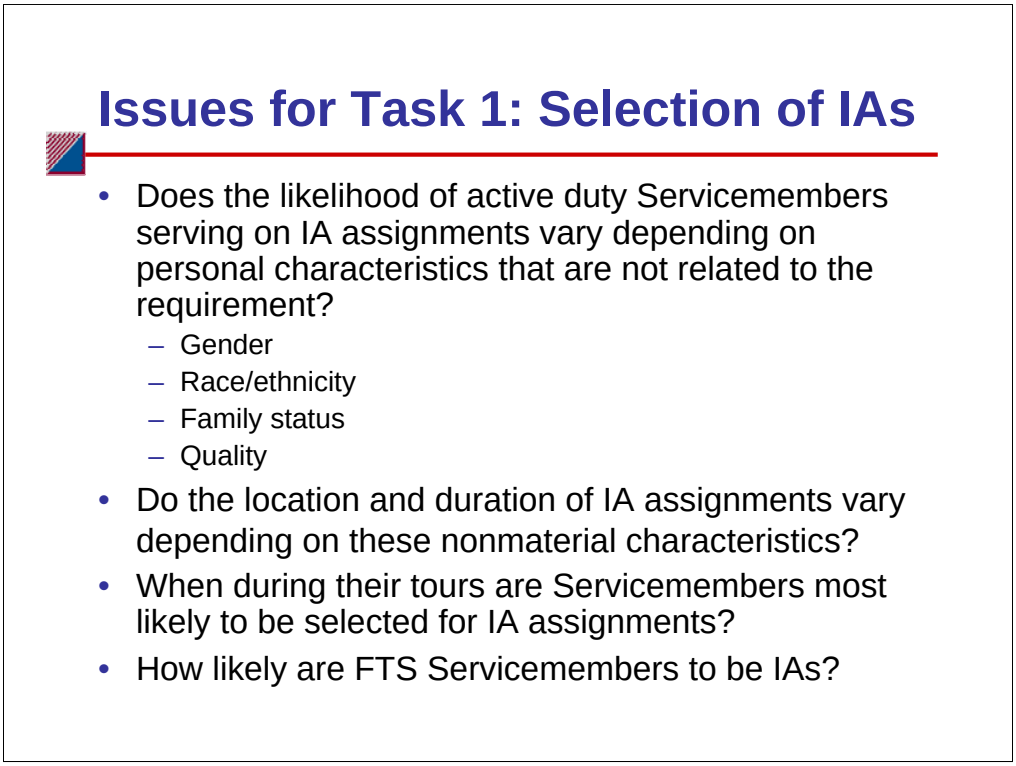
To conduct our analysis, we needed to know which Servicemembers served on an IA assignment, when, and to what location. In addition, because one of our tasks required us to look at behavior following an IA assignment, we needed to identify active duty IAs as close to the beginning of the Global War on Terrorism as possible. Historically, the Navy's personnel data systems have not captured IA assignments because they are TAD assignments to locations that do not have authorized billets; personnel data systems do not record TAD orders. Recently, however, the Navy began to award Navy Enlisted Classifications (NECs)/Additional Qualification Designations (AQDs) to most enlisted and officers assigned to IA duty (based on the training they receive), and it has made efforts to award them to Servicemembers who have already served IA tours. We cannot rely on this for our purposes, however, because these efforts will not extend to Servicemembers IA'd before this initiative who have attrited, separated, or retired since completing an IA tour.

To identify active duty Servicemembers who served on IA assignments, we used the IA Orders Tracking File, a data set maintained at PERS-463. This data set contains a list of active duty officer and enlisted IAs along with the date they deployed, the length and location of their assignment, and their parent UIC. Although the data set contains IA deployments back to FY03, there are some concerns about the quality of the earlier data. One concern, for example, is that the earlier data may contain Servicemembers who were selected but never actually deployed. Before September 2004, there was no central order writing organization for active duty IAs. Orders were issued from either the IA's command or claimant. During this time, there was a lot of churn in the selection process. Commands would submit names to fill IA assignments, then retract those names and submit others, in some cases multiple times. In September 2004, PERS-463 became the central order writing organization for all active duty IAs, which improved the ability to track who filled each IA request.

We supplement these data with information regarding the Servicemember from the Enlisted Master Record (EMR) and Officer Management Tapes (OMT) (such as gender, race/ethnicity, marital status, paygrade at time of deployment and subsequent promotions, and billet information at time of deployment and on return from deployment).

Two caveats are necessary. First, the data provided by PERS-463 include only Servicemembers who deployed on an IA assignment; those who were tagged and did not successfully screen, who failed training for an assignment, or who attrited after being tagged but before deploying are omitted. The lack of information regarding Servicemembers who were tagged for IA but dropped out for any reason is unfortunate because we cannot address the effect (in terms of retention, career progression, and so on) of *selection* for IA duty on Servicemembers, and whether certain characteristics differentiate those Servicemembers who have been omitted from the available data relative to those who completed their IA duty.

In addition, we reiterate a caveat we made previously: these data do not provide information as to whether the Servicemember volunteered or was selected for the IA assignment. Differences in the rate at which Servicemembers with particular characteristics were IA'd may not necessarily reflect any bias in their selection if, rather than being selected, Servicemembers with these characteristics disproportionately volunteered for IA assignments.

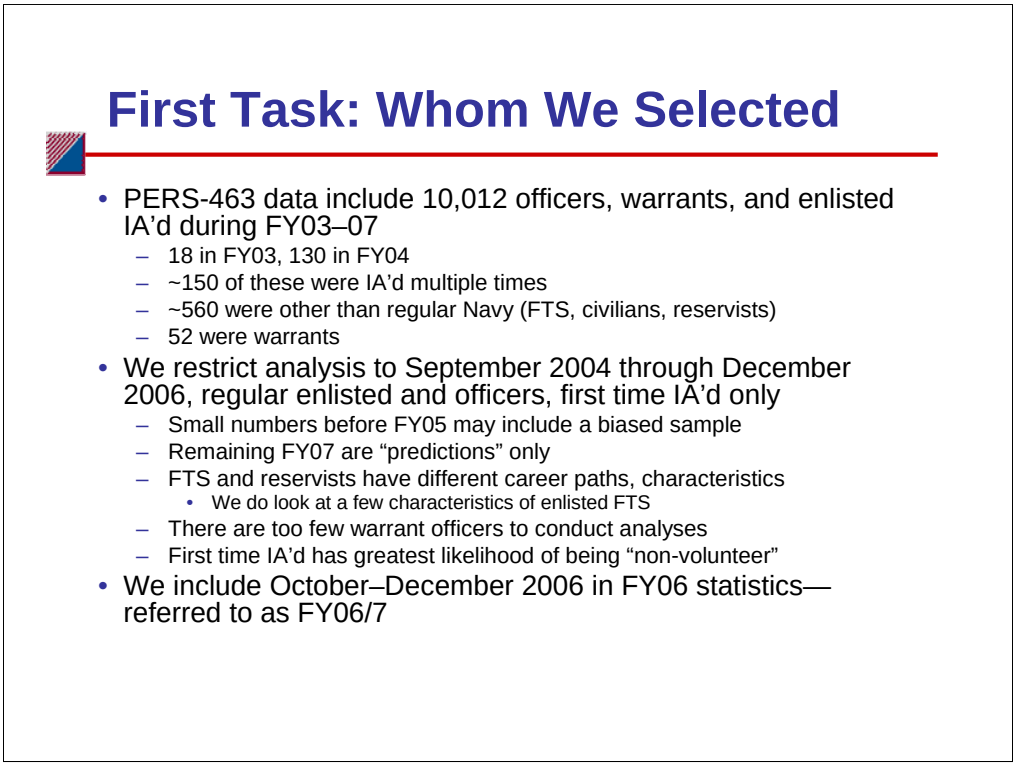


The first set of issues we looked at concerns the selection of active duty Servicemembers for IA assignments. Most IAs are selected at the command level, and commands, for the most part, make their selections independently. We were asked to look at whether the Navy, at an aggregate level, is unintentionally selecting Servicemembers based on personal characteristics that are not related to the IA requirement. The characteristics that we focus on are gender, race/ethnicity, family status (marital status and children), and quality.

We looked at two aspects of this issue. The first was whether the likelihood of serving on an IA assignment varies depending on personal characteristics that are not related to the requirement. The second was whether IAs were likely to serve on longer assignments or be assigned to more dangerous locations based on gender, race/ethnicity, family status, or quality.

The Navy was also concerned about whether commands were making selections based on the tenure of the Servicemember at his or her command. In particular, there was some concern that commands may be targeting Sailors who had recently reported on board. To address this concern, we looked at when during their tours Servicemembers were most likely to be selected for IA assignments.

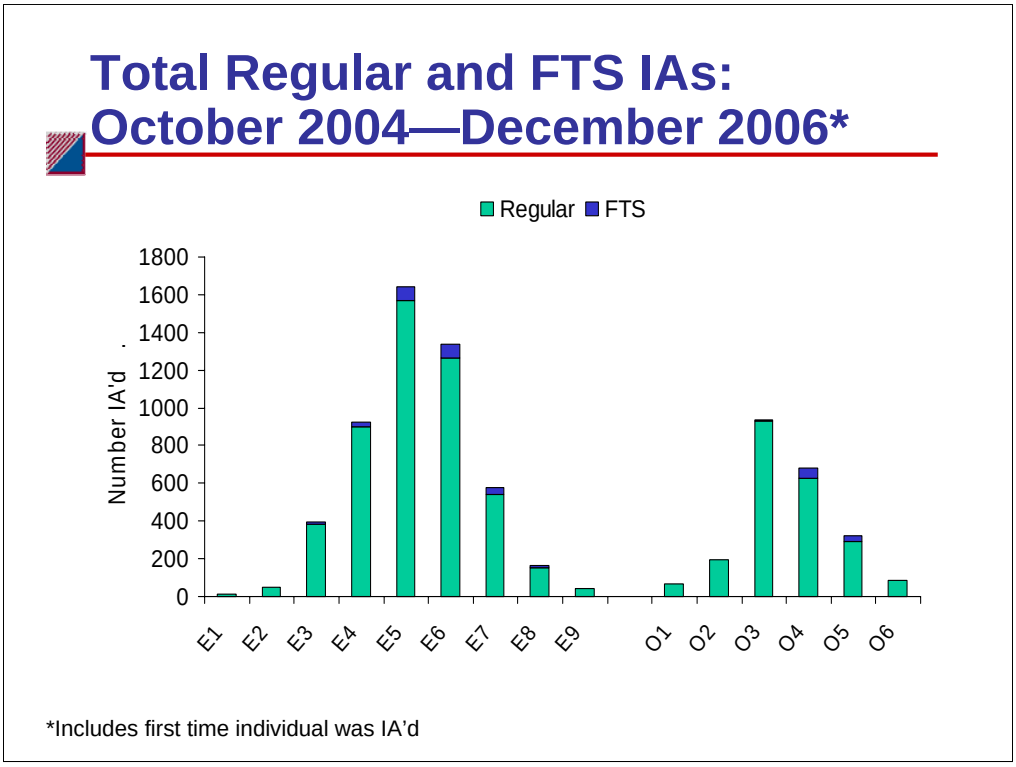
Finally, because some of the active duty IA were Full Time Support (FTS), we looked at the likelihood of FTS Servicemembers serving on IA assignments.



The data provided by PERS-463 include a number of observations for personnel who were not Regular Active Duty, including a small number of civilians and reservists, and several hundred FTS. Our tasking is to analyze active duty IA phenomena, so we eliminated people in the first two categories. In addition, because of the small numbers and different career paths and promotion points for FTS Servicemembers, we also eliminated these observations from most of our analysis. We do, however, provide some FTS summary statistics. Finally, there were too few warrant officers to permit meaningful analyses.

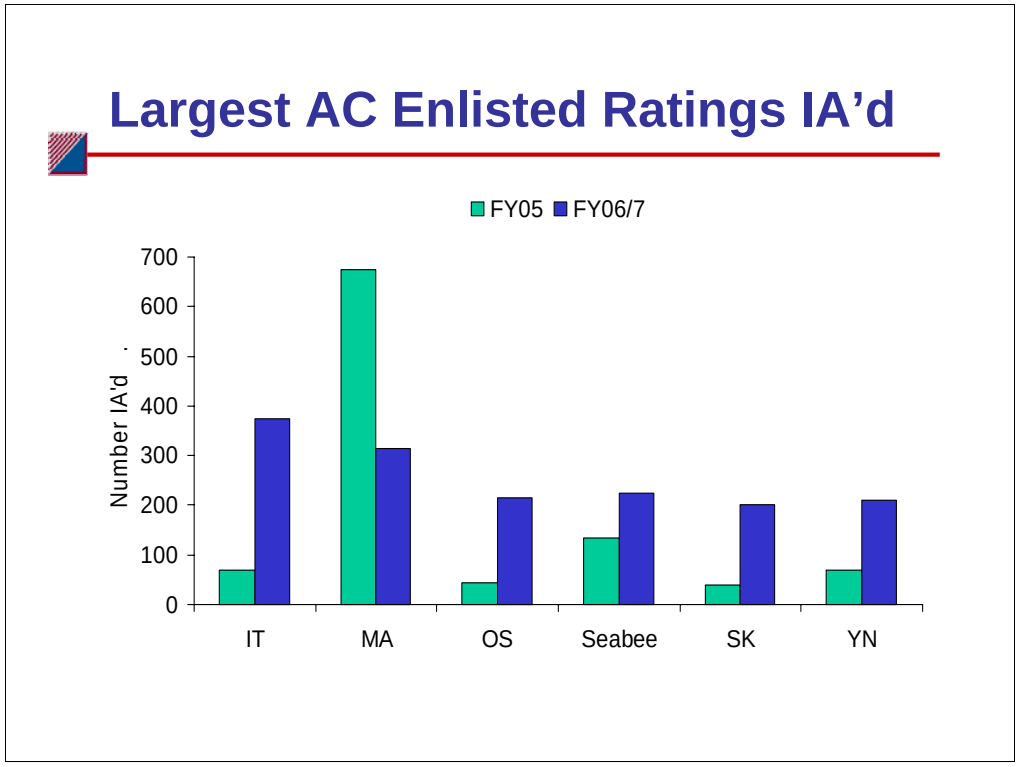
That leaves us with regular active duty enlisted and officers, spanning FY03 through May 2007. It is not clear which of those Sailors with deployment dates in the future will ultimately deploy; as a consequence, we omit observations for Sailors with deployment dates after 31 December 2006, the date that PERS-463 provided us with the data. Unless noted otherwise, we drop deployments in FY03 and FY04 because there are so few observations in these years. We do not know the criteria for their inclusion, which may bias these observations.

For the remaining population, we note that several Servicemembers had multiple IA tours. We conclude that those on subsequent IA tours are more likely to be volunteers. To eliminate this bias as much as possible, we include only information pertaining to the first IA tour of all regular active duty enlisted and officers.



In this slide, we report the number of regular active duty and FTS Servicemembers who were IA'd, for the first time, between October 2004 and December 2006.

There are three noteworthy phenomena: (1) of the approximately 7,500 Servicemembers IA'd in this time period, almost 70 percent were enlisted, (2) FTS are 5 percent of the total number IA'd, and (3) the majority of those IA'd, both officers and enlisted, were mid-career. For instance, three-fourths of enlisted Sailors were E4–E6, and roughly the same percentage of officers were O3–O4.



We begin our analysis with the enlisted ranks. In this slide, we summarize the ratings[1] for the largest number of regular active duty Sailors IA'd each year,[2] with the criterion that the rating had to represent at least 5 percent of all regular active enlisted Sailors IA'd that year.

The MA rating represents over 46 percent of the 1,447 Sailors IA'd in FY05. Their numbers were cut in half in FY06/7, at the same time that the overall number of Sailors IA'd more than doubled, to 3,466. Even so, MAs remain a large segment of the number IA'd in FY06/7, and a number of other ratings experienced a large increase in their demand to fill IA requirements in FY06/7.

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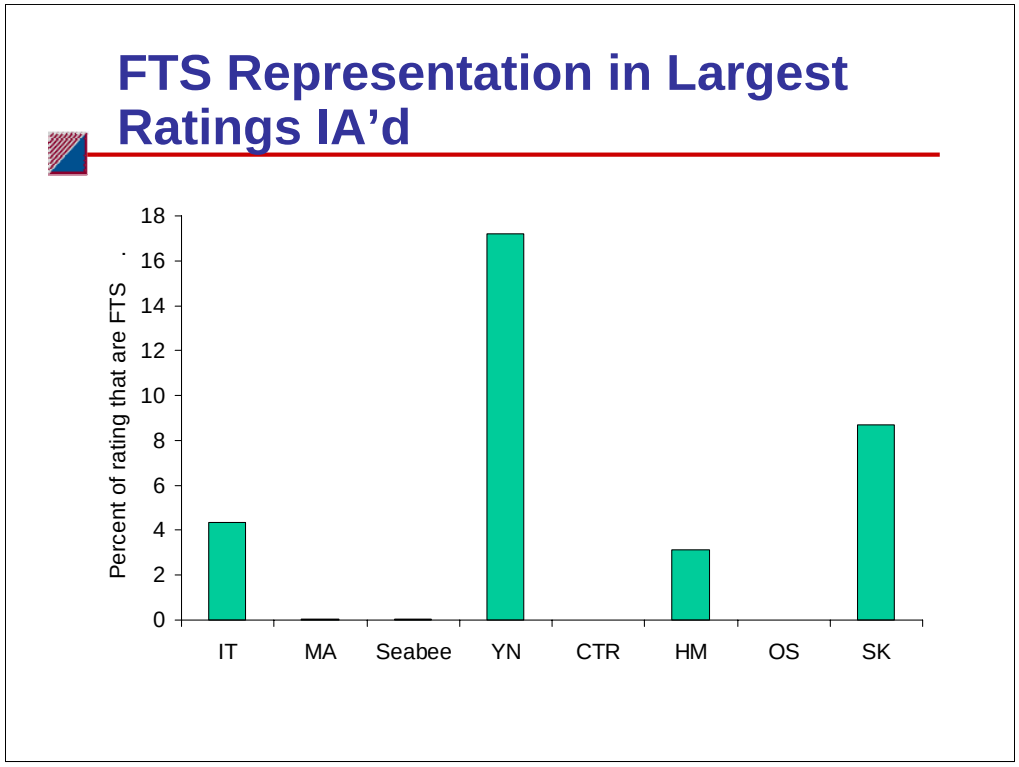
[1] Because Seabees usually deploy in a battalion, here and elsewhere we combine the Seabee ratings (BU, CE, CM, CU, EA, EO, EQ, SW, UC, and UT) and refer to this community as a rating.

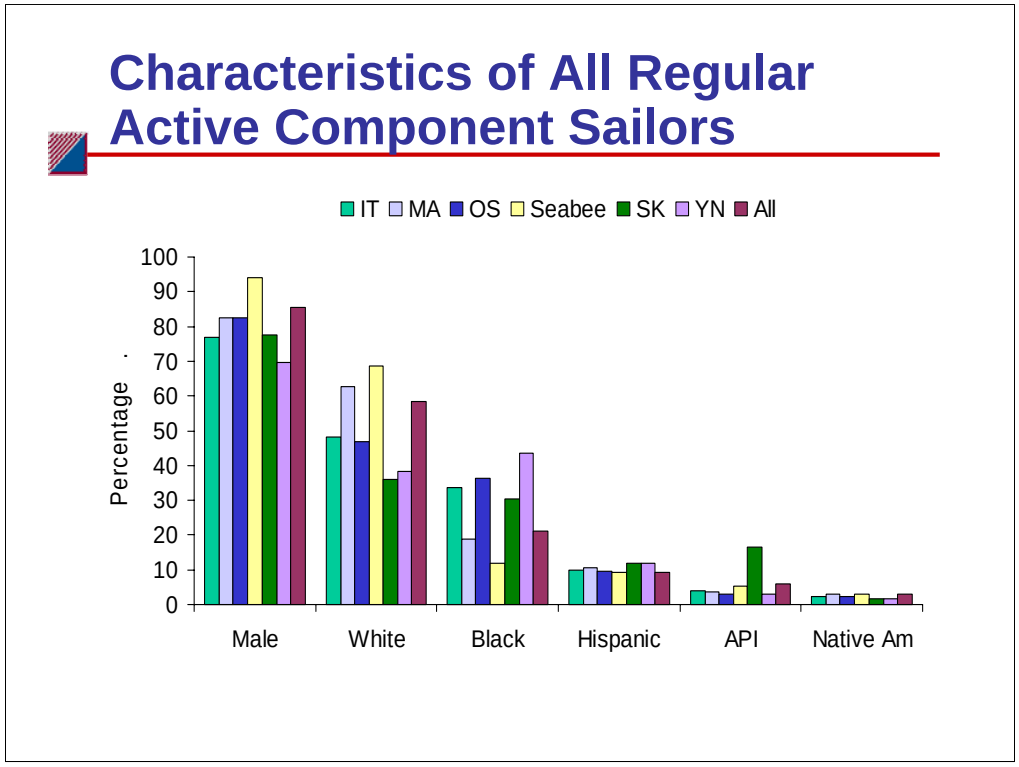
[2] We refer to the time period of FY06 through December 2006 as FY06/7.



We noted earlier that relatively few FTS Servicemembers were IA'd. In this slide, we provide one explanation: there were very few enlisted FTS in the ratings that were most often IA'd. For instance, in the beginning of FY05, there were only three FTS Seabees, three MAs, two OSs, and no Cryptologic Technicians—Collection (CTRs). In fact, of the almost 40,000 regular active and FTS Sailors in inventory in the ratings included in this slide, just 4 percent were FTS.

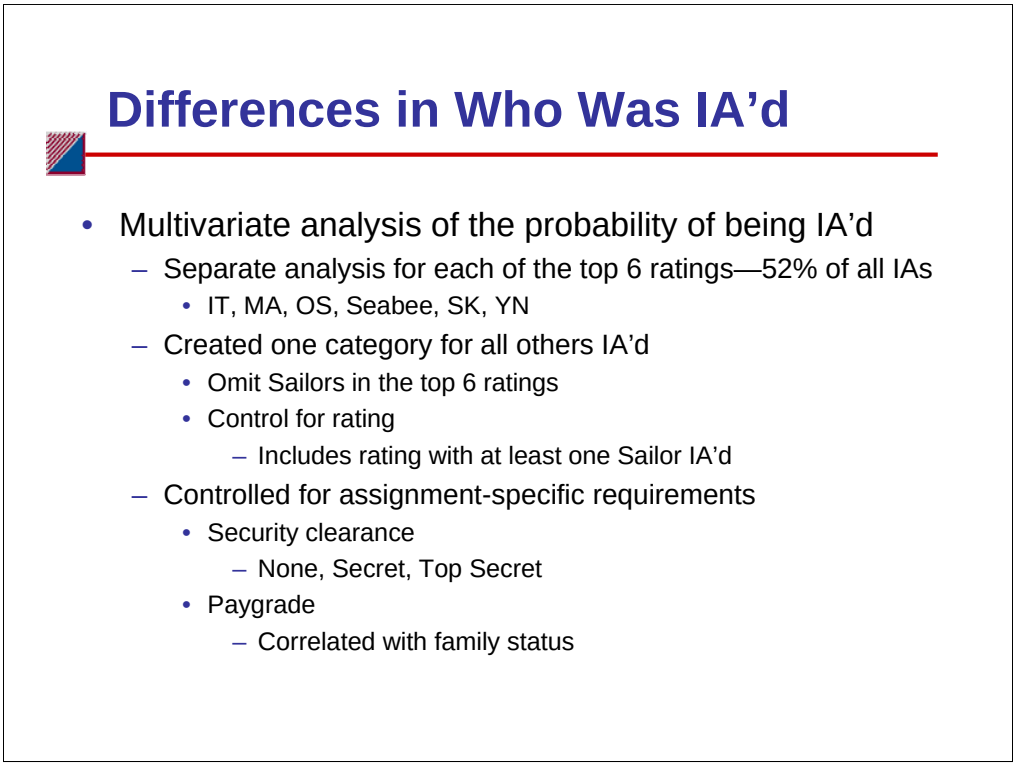
There were at least 400 FTS in the IT, Yeoman (YN), Hospital Corpsman (HM), and Storekeeper (SK) ratings—numbers that provide a sufficient number of observations for some basic analysis, which we report later.

Unless otherwise noted, therefore, we will confine the remainder of our enlisted analyses to regular active duty Servicemembers.



Ratings differ significantly in the composition of Sailors, in terms of gender, race/ethnicity, Armed Forces Qualification Test (AFQT) score, and so on. Without controlling for these differences, we could erroneously conclude that a bias exists in IA assignments if we simply look at the characteristics of Sailors IA'd without controlling for rating. We demonstrate why this is important by summarizing the gender and racial/ethnic composition of all Sailors in the Navy at the beginning of FY05, and in each of the top 6 ratings in terms of the number IA'd.

For instance, the YN rating has a disproportionate number of blacks and women, while the Seabees are disproportionately composed of white men. Absent any bias, then, compared with the entire enlisted Navy, we would expect more Seabees who were IA'd to be white men, and more YNs to be black women.



Because ratings vary significantly in their race/ethnicity and gender composition, and because criteria for selection of Sailors may differ by rating, we estimate the probability of being selected for an IA assignment for each rating separately. Further, to isolate the effects of the characteristics of interest, such as race/ethnicity and family status, while controlling for relevant assignment requirements, such as paygrade, we estimate a multivariate logistic regression of the probability of being selected for an IA assignment from October 2004 to December 2006.[1]

Our time period spans 27 months, and Sailors were being selected throughout this period, making it impractical to create a control group for each day that a Sailor was first deployed. Instead, we select one point in time, October 2004, for our control group, and note the characteristics of Sailors at that time who were not selected for an IA assignment. While the characteristics of *individual* Sailors not selected might have changed over the next 2 years in terms of such characteristics as paygrade and family status, the distribution of all Sailors with these characteristics has remained fairly constant, making this an appropriate control group.

We have already noted differences in the ratings of Sailors who were selected for IA assignments, and how characteristics of Sailors within these ratings vary. In addition, the selection of Sailors varies in other important characteristics. In particular, at the beginning of FY05, 54 percent of all Sailors were on sea duty (we include Type 2, 3, and 4 in this category). In contrast, 31 percent of those IA'd were on sea duty.

[1] We use a logistic regression because the outcome variable—being selected for an IA assignment—is a discrete variable that takes on two values, 0 or 1.

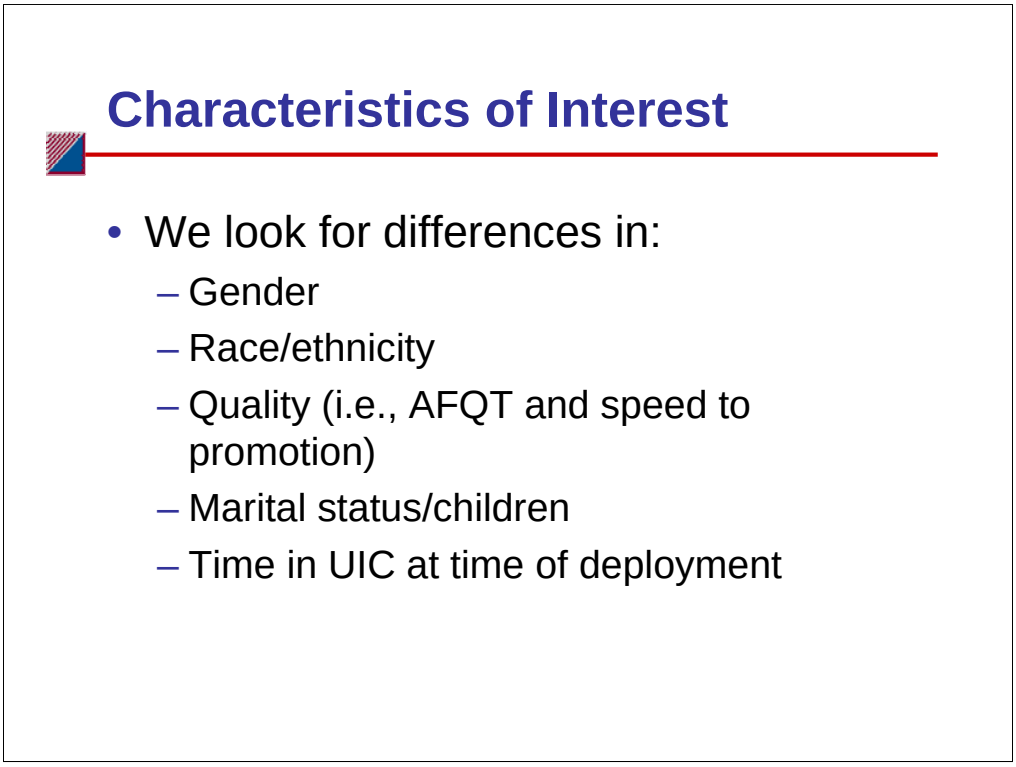
Current IA business rules, as specified in NAVADMIN 273/06.02, October 2006, exempt more Sailors from IA assignments who are on sea duty than on shore duty. While these rules were established after most of the Sailors in our analysis were selected for IA assignments, they most likely reflect the general approach taken in selecting Sailors for IA assignments before the instruction.

Even so, it appears that Sailors on sea duty were not deferred at the same rate across the six ratings we have described. For instance, 59 percent of all Seabees were on sea duty at the beginning of FY05, and 65 percent were on sea duty when they were IA'd. In contrast, 24 percent of all HMs were on sea duty, and 2 percent were on sea duty when IA'd. Therefore, we add a dummy variable indicating whether the Sailor was on sea or shore duty.

Finally, we also control for the Sailor's level of security clearance because this may have been a requirement of the IA assignment. Our categories include no clearance (the omitted group), Secret, and Top Secret. We also include paygrade because it was likely a stated requirement for the IA assignment (or perhaps a range of paygrades). Paygrade is also highly correlated with other phenomena, such as marital and parental status, so it is important that we control for paygrade to isolate the effect of these other nonmaterial characteristics.

In addition to the six ratings, we estimated a multivariate logistic regression for all other enlisted Sailors who were not in these top 6 ratings. The number of Sailors IA'd in each of these ratings is too small to permit individual regression estimations. We control for rating in these estimates, however, to account for the fact that all ratings were not equally likely to be required to fill IA requirements and, as we noted earlier, ratings vary in their race/ethnicity, paygrade, and gender composition. Adding rating to our estimates controls for these differences. Because of estimation issues, we include only ratings with at least one Sailor IA'd in this time period.

Combining all other ratings into one estimation precludes us from analyzing whether Sailors in particular ratings were more or less likely to be selected for an IA assignment based on race/ethnicity, gender, or other characteristic. Instead, our results provide an indication of whether, after we control for differences in the characteristics of Sailors within each of these ratings, Sailors with certain characteristics were *generally* more likely to be selected for an IA assignment.



We reiterate here the characteristics on which we focus to determine whether they were used as criteria for selection for IA assignments. Some require additional explanation.

To minimize the effect of the loss of a Sailor under his or her command, a Commanding Officer (CO) may nominate someone for an IA assignment whose loss would result in the least reduction in the command's productivity. One logical choice is to select Sailors with the least time in their current job, since on-the-job experience is typically associated with higher productivity. To test whether COs were, in fact, selecting these types of Sailors, we analyzed whether Sailors with less time in their current UIC (at the time of their IA deployment) were more likely to be IA'd than Sailors with longer tenure. Our categories are less than 6 months in UIC, 6 to 11 months in UIC, 12 to 23 months in UIC, and more than 23 months in UIC.

Another way to minimize the loss of productivity is to avoid selecting Sailors of the highest quality. While quality is a subjective measure, the military's rank and promotion system offers one metric by which Sailors can be evaluated relative to their peers. In particular, those who promote up through the ranks faster than their peers are more likely to be more productive, and hence of higher "quality," than those who do not. Therefore, we created a metric that indicates whether a Sailor promoted "fast" to his or her current paygrade, which we refer to as "highest quality."

"Fast" is defined as the time it took the fastest 25 percent of Sailors in a rating[1] and accession cohort to promote to each paygrade. For instance, if 25 percent of a Sailor's accession cohort promoted to E5 by 60 months, and the Sailor is currently an E4 with 65 months of service, we would indicate that the Sailor was not "fast" in terms of promotion.

Lacking such information for Sailors in paygrades E1 to E3 (promotion to these ranks is fairly automatic at specific time-in-service milestones, and many in these paygrades are not rated), we have to create a separate measure of quality for these Sailors. A high-quality new recruit is defined by the Navy as a high school diploma graduate (HSDG) who scores 50 or above on the Armed Forces Qualification Test. Categorizing recruits in this way is important because it is these recruits (referred to as A-cells) who are the most qualified for the Navy's technical ratings and who experience the lowest attrition. Lacking any Navy-specific performance metrics, AFQT score and education are fairly good predictors of early Navy success. Typically, about 65 percent of all new recruits are A-cells, which would include far more E1–E3 Sailors in the definition of quality than the one we have constructed that is based on promotion speed. Therefore, we define E1–E3 Sailors to be highest quality if they score 65 and above on the AFQT and are HSDGs (65 and above on the AFQT is defined as Category II). If, however, an E3 Sailor is rated and had a length of service that was sufficient to be promoted fast to E4, we would indicate, regardless of education and AFQT, that the Sailor was not "fast" to promote. In other words, promotion trumps new recruit quality measures for these E3 Sailors.

Sailors can be demoted for a number of reasons; some reflect poor performance, but others do not. An example of the latter is a prior service (PS) recruit who reenlists and is required to accept a lower paygrade as a condition for reenlisting. Because a CO may perceive a Sailor who was demoted for misconduct or for prior service as not being of the highest quality, we categorize all Sailors who were ever demoted as not being fast to promote.

Finally, our measure of an IA'd Sailor's characteristics are as of the day he/she went on deployment rather than the day he/she was selected—a date that is unknown to us. So, for instance, a Sailor may not have been married or had a child when he or she was first selected, but the Sailor got married or had a baby, or was promoted, between being selected and deploying. We cannot control for this, but it is our understanding that the time period between being selected and being deployed is relatively short, especially in the time period under consideration, so this presents little bias.

[1] It is important to control for rating because the average time in grade and time in service varies significantly across ratings. Similarly, promotion timing varies within a rating over time, which we control for by following accession cohorts.

Predicted Relative Probability of Being IA'd

	IT	MA	OS	Seabee	SK	YN	All other ratings
Men	4.7%	11.9%			2.7%	5.6%	1.0%
Women relative to men	-38%	-42%			-48%	-50%	-51%
Whites		10.6%	2.7%	4%	2.4%		
Blacks relative to whites		+0%	+19%	-45%	+17%		
Hispanics relative to whites		+14%	-11%	+20%	-8%		
All other races relative to whites		+32%	+85%	+48%	-21%		
Single	5.2%						1.1%
Married relative to single	-31%						-22%
No children				4.6%			
Children relative to no children				-26%			
Not highest quality	4.7%	11.4%					1.0%
Highest quality relative to all other Sailors	-30%	-13%					-19%
Shore duty	7%	13.8%	4.5%	3.1%	3.6%	5.6%	1.3%
Sea duty relative to shore duty	-70%	-64%	-58%	+48%	-61%	-38%	-56%
Overall probability	4.2%	11.0%	3.0%	4.0%	2.4%	4.7%	0.9%

Female YNs were 50% *less* likely to be IA'd than Male YNs

Predicted probabilities shown in black; predicted relative probabilities shown in red and blue.

Using results from our multivariate logistic regressions, we predict the probability that a Sailor would be IA'd, varying one characteristic at a time and holding all others constant. We provide the overall predicted probability that a Sailor in that rating would be IA'd, the predicted probability that a Sailor in the reference group for various characteristics would be IA'd, and the predicted probability that Sailors who are not in the reference group would be IA'd relative to the reference group. For instance, men are the reference group for gender, and we report their predicted probability of being IA'd. We then predict the probability that women were IA'd, relative to men. To convert to a predicted relative probability, we divide the predicted probability for a Sailor with that characteristic by the probability for the reference group, and subtract one. Groups that were more likely than the reference group are in blue, while those that were less likely are in red. We report only results that were statistically significant at the .05 level.[1]

Referring to the graph above, we predict that men in the YN rating had a 5.6-percent probability of being IA'd, and women in the YN rating were 50 percent less likely to be IA'd than men (which means that we predict that they had a 2.8-percent probability of being IA'd). The difference between men and women is based solely on gender, holding all other characteristics constant. Our results indicate three possibilities: (1) male YNs were disproportionately selected for IA assignments, (2) they volunteered disproportionately more than women, or (3) men were disproportionately required for the billets.

[1] The lack of statistical significance is most often a function of small sample sizes rather than a true lack of significance. Because there have been relatively few Sailors IA'd, at least in terms of the proportion of any particular rating, we expect that many variables will not be statistically significant. As more Sailors are IA'd, which will increase their sample sizes, greater precision in the estimates, and hence more statistically significant results, may be possible.

Likewise, men were more likely to be IA'd in the MA, SK, and YN ratings, and for all of the remaining IA requirements.

Race/ethnicity was a statistically significant factor for the MAs, Seabees, SKs, and OSs. The results for blacks and Hispanics are not consistent; they were more likely to be IA'd than whites in some ratings, but less likely in others. The results for "all other races" are more consistent, however; for three ratings (MA, OS, Seabee), they were far more likely to be IA'd than whites, and less likely in the SK rating. Note that even if minorities are less likely to have security clearances (due to citizenship or other factors that prohibit a Sailor from getting a clearance), our results control for this; these results hold constant security clearance status.

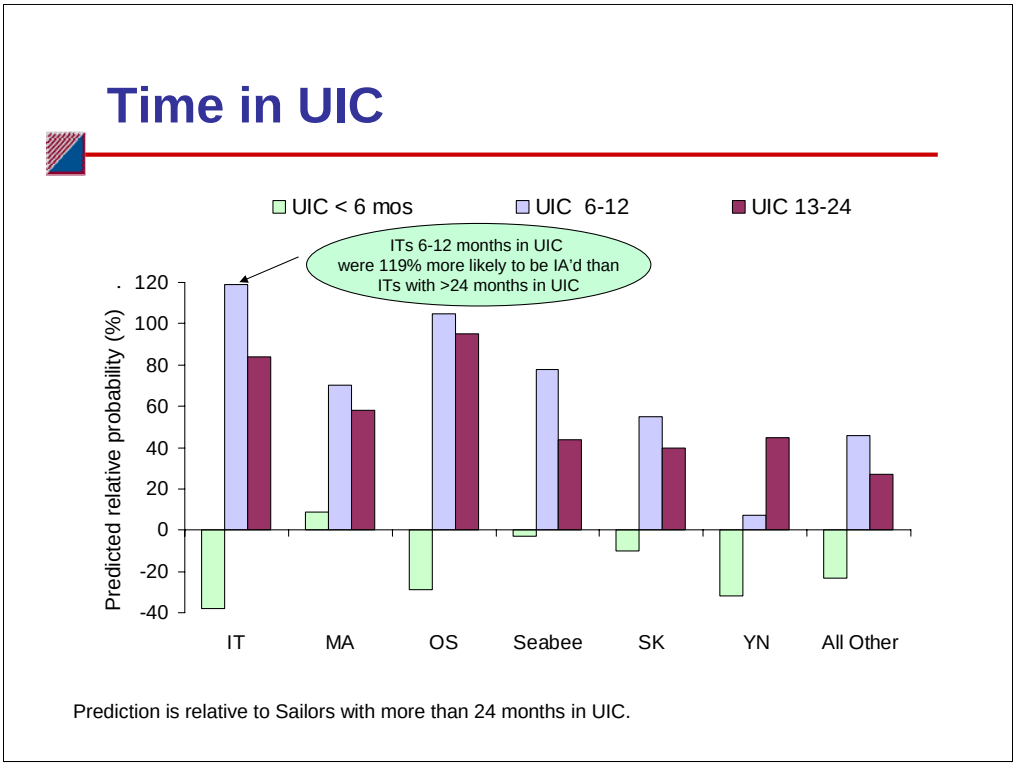
As we noted with gender differentials, significant racial/ethnic differences in the probability of being IA'd could be based on differences in volunteerism or in selection criteria. Inconsistent findings (across ratings) concerning the probability of minorities relative to whites, however, are more difficult to explain.

There are only two categories in which marital status was statistically significant (IT and all other IA assignments). For both, married Sailors were less likely to be IA'd than their single counterparts. Parental status was significant only for the Seabees; those with children were 26 percent less likely to be IA'd than those without.

Our measure of Sailor quality was significant for the ITs, MAs, and the "all other" IA category. For each of these, Sailors whom we categorized as "highest quality" were less likely to be IA'd than their peers. Again, it could be that Sailors in these ratings who were not in the "highest quality" category were either disproportionately selected for IA duty or volunteered at higher rates—perhaps with the expectation that an IA assignment would benefit them in subsequent promotions. We look at promotion rates later, but we note here that our results indicate that this may not be a realistic expectation.

In every case except Seabees, Sailors on sea duty were far less likely to be IA'd than their counterparts on shore duty. The opposite is true for Seabees; they were less likely to be IA'd if they were on shore duty.

We do not report our findings relating to security clearances because we assume that they are material to the IA requirement. Even so, we note that across all ratings, the results for having a Secret, Top Secret, or either type of clearance were statistically significant and consistent; Sailors with a clearance were far more likely to be IA'd.



In this slide, we illustrate the differences in the probability of being IA'd based on months in UIC. Again, we report the predicted probability that a Sailor with a given length of time in a UIC would be IA'd relative to Sailors with the longest duration in a UIC (more than 24 months). For reference, the predicted probability that a Sailor with more than 24 months in a UIC would be IA'd in the IT, MA, OS, Seabee, SK, YN, and all other ratings is 3.2, 8.1, 2.1, 3.2, 2.0, 4.4, and 0.8 percent, respectively.

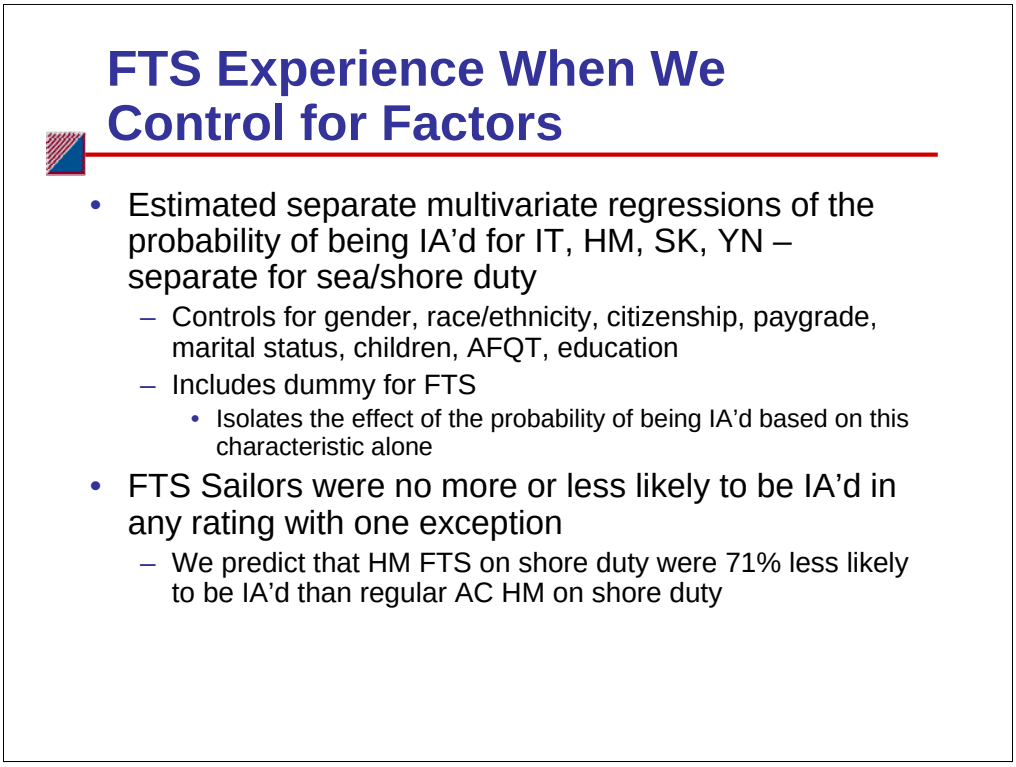
As we posited earlier, to minimize the negative consequences of losing a Sailor for an IA requirement, COs may have nominated Sailors for IA duty who had the least time in their present jobs, represented by the number of months spent in their UICs immediately before their IA deployment dates. Our findings do not support this hypothesis. In particular, Sailors with 6 to 24 months in UIC were far more likely to be IA'd than Sailors with either a short or long tenure. In both extremes, COs may have sought to minimize disruption to Sailors who either recently moved to their new locations or had orders and plans to move to new locations.

The IA Experience of Enlisted FTS Servicemembers

- FTS personnel have different career paths than regular AC Sailors
  - 36% of FTS E5s were "highest quality"
  - Compared with 27% of regular AC E5s in the same ratings
- Fewer are at sea
  - 36% of FTS
  - Versus 54% of regular AC in the same ratings

As we noted previously, relatively few enlisted FTS Servicemembers have been IA'd. We omitted them from our analysis of regular Active Component Sailors for a number of reasons. In particular, in addition to the fact that their representation in ratings is not uniform, their career progression is often quite different from that of regular AC Sailors in the same rating. For instance, according to our highest quality metric, 36 percent of FTS Sailors who were E5 as of October 2004 were highest quality, compared with 27 percent of regular AC E5s in the same ratings. They also are less likely to be on sea duty than their AC peers; as of October 2004, 36 percent of FTS personnel were on sea duty, compared with 54 percent of regular AC Sailors in the same ratings.

As a consequence, we cannot conduct as robust an analysis of FTS IAs as we can of regular AC Sailors. Instead, we analyze whether FTS Sailors were more or less likely to be IA'd than their AC peers in the same rating. As before, we need to control for relevant characteristics, but, as we note here, some of these characteristics differ between regular AC and FTS Sailors. Therefore, we have to modify our analysis slightly. We discuss our analysis and results next.



We estimated separate multivariate logistic regressions of the probability of being IA'd for each of the four ratings described previously (IT, HM, SK, and YN) and separate regressions for sea and shore duty, combining regular AC and FTS. Similar to our previous analyses, we controlled for paygrade and citizenship, and the following non-IA-required characteristics: gender, race/ethnicity, marital status, children, and time in UIC. Because, as we noted earlier, FTS Sailors have different career paths and, hence, difference promotion timing, we did not include our measure of highest quality. Instead, we included the Sailor's AFQT and education status. Finally, we included a dummy variable indicating whether the Sailor was a regular AC member or a member of the FTS.

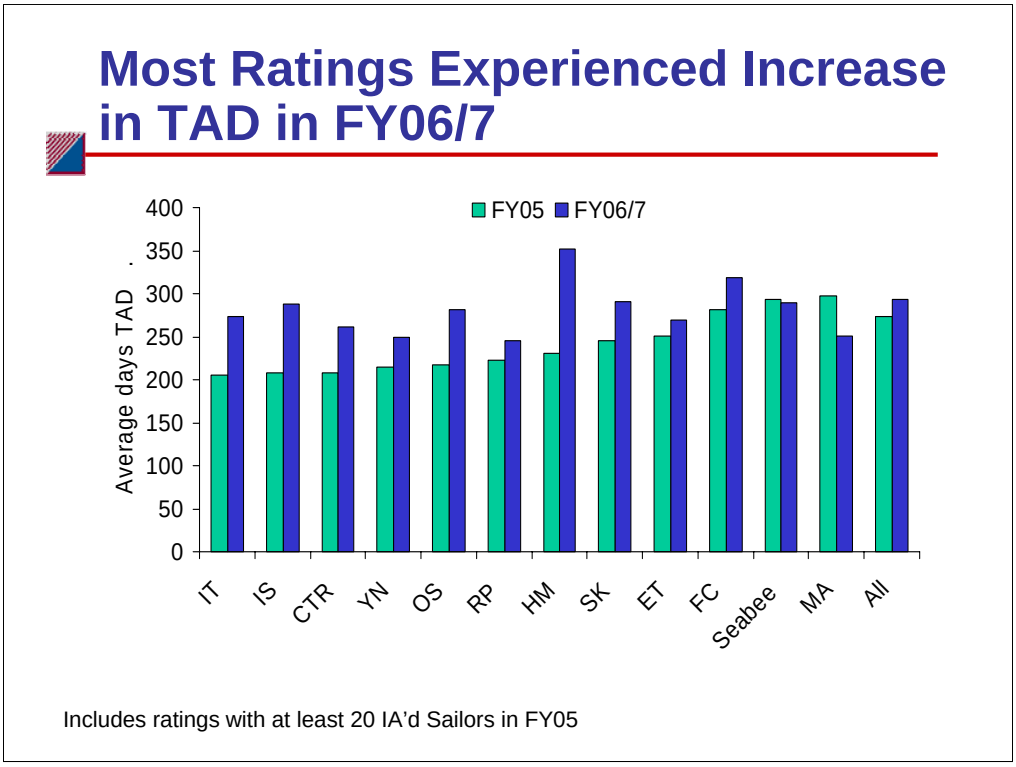
By controlling for these other confounding factors, we are able to isolate the effect of the probability of being IA'd based on the Sailor's FTS status only. Our results indicate that, with only one exception, the coefficient on the FTS variable was not statistically significant at the .05 level. The exception is for FTS HMs on shore duty, whom we predict were 71 percent less likely to be IA'd than regular AC HMs on shore duty (the overall percentage of HMs on shore duty that were IA'd was 1.15 percent).

Next Analysis: Differentials in Assignments

- We looked at:
  - Total days TAD
  - Location of assignments
- Controlled for rating, gender, race/ethnicity, highest quality, FY (05 vs. 06/7)
- Estimated whether differences existed overall by Sailor characteristic and within individual ratings
  - We estimated whether particular characteristics are associated with longer TAD or assignment to different locations when we control for confounding factors

We turn now to our analysis of the types and length of IA tours of those who were selected. In other words, of those who served on IA duty, were there any differences in the length of tours, location, or other characteristics of the duty that cannot be explained by the rating and paygrade alone?

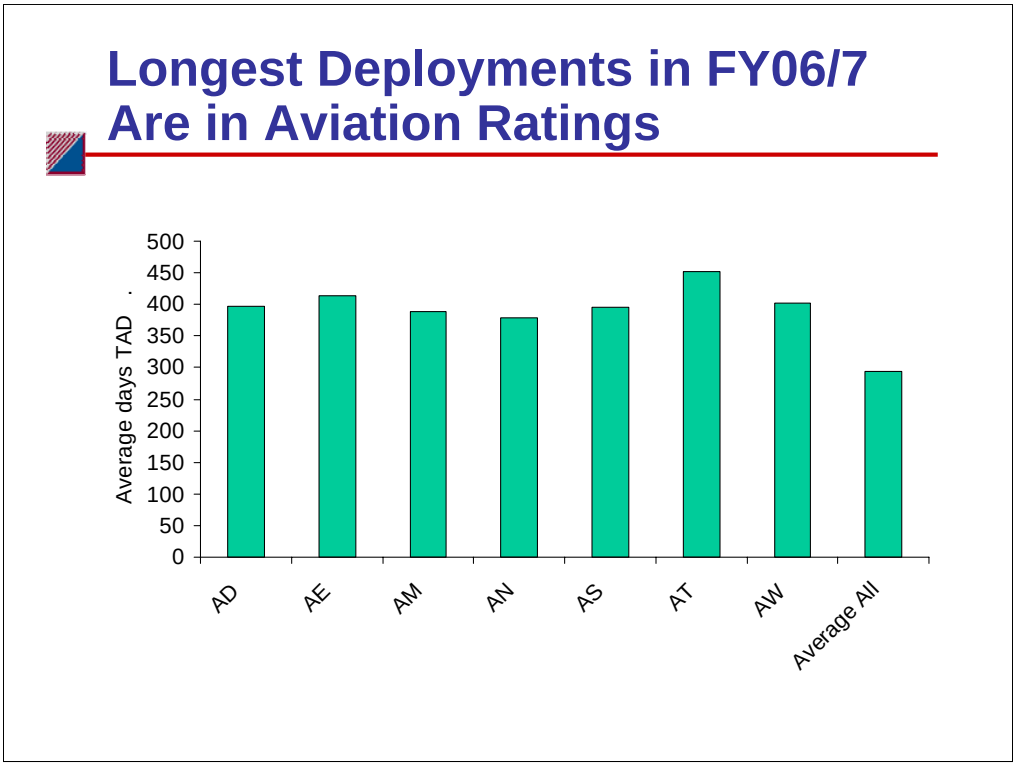
We looked first at the total number of days the Sailor was on Temporary Additional Duty, which included training and boots on ground (BOG)—the latter a measure of the number of days in theater. As before, using multiple regression analysis allows us to control for confounding factors that may influence the duration of the assignment. We are looking specifically at whether, once we control for a Sailor's rating, paygrade, and fiscal year, he or she was likely to spend more time on TAD based on gender, race/ethnicity, family status, or quality (again, measured as speed of promotion). Unlike our previous analysis, time in UIC and whether the Sailor was on sea or shore duty when IA'd are not included because they are irrelevant once the Sailor has been selected.



In this slide, we first report the average number of days IA'd Sailors spent on TAD in FY05 and FY06/7, for all Sailors IA'd, and for the ratings that had at least 20 Sailors IA'd in FY05. We order them, beginning with the rating with the least amount of time spent on TAD in FY05, IT, to the longest, MA. We note a number of phenomena that emerge.

First, almost all ratings experienced a significant increase in days spent on TAD in FY06/7. Those with the least increase (or, in the case of Seabees and MAs, a decrease) were those that had longer than average deployments in FY05.

It also appears that, with the exception of HMs, there is less variation around the mean TAD time in FY06/7 than there was in FY05. In other words, Sailors in most ratings are spending roughly the same amount of time IA'd in FY06/7. For instance, the difference in the average number of days TAD in FY05 between MAs and ITs was 94 days. In FY06/7, the range between Religious Programs Specialists (RPs) and Fire Controlmen (FCs) is 73 days.



In the previous slide, we reported changes in the average number of days TAD for only those ratings that had at least 20 Sailors IA'd in both time periods. For those, HMs are on TAD longer than average; at an average of 352 days, they exceed the FY06/7 average by about 20 percent.

While smaller in numbers, several aviation ratings have significantly longer periods TAD than the HMs. For instance, AT Sailors spent an average of 15 months TAD, or about 54 percent longer than the average Sailor IA'd in FY06/7.

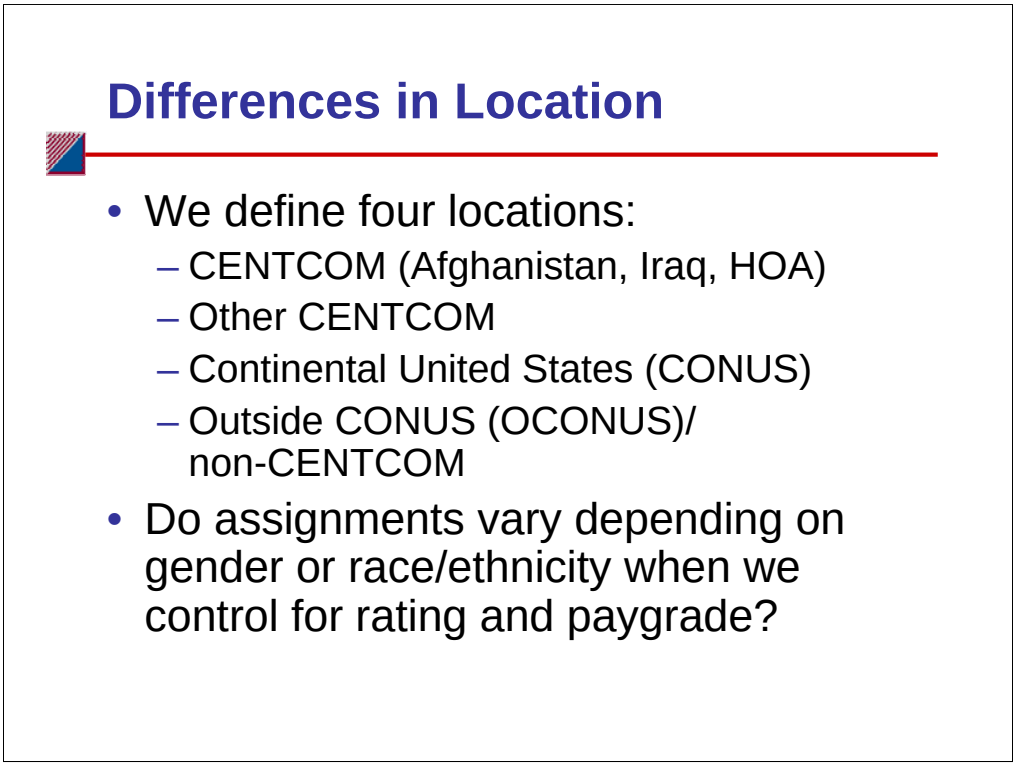
Differences in TAD When We Control for Factors

- We estimate multiple regression on total days TAD for all Sailors IA'd from FY05 to December 2006
- We control for rating, gender, race/ethnicity, family status, citizenship, quality, rating, and paygrade
- TAD differs by rating and paygrade
- Gender is the only personal characteristic that is statistically significant
  - Men served 18 more days than women

Our multiple regression includes all Sailors IA'd in FY05 through December 2006. We control for the effect of rating, in addition to the other factors noted above.

When we control for confounding factors, the gender difference in time spent on TAD remains; men spent 18 more days than women.

Statistically significant differences exist in days spent TAD by fiscal year, paygrade, and rating, but these are due to the requirements of the IA assignment, so we do not report them here.



We now turn to differences in the location of IA assignments. We address the question of whether there are differences in the location of assignments by gender or race/ethnicity that cannot be accounted for by the Sailor's rating and/or paygrade.

With input from the sponsor, we divided geographic locations into four groups, ranging from the most dangerous/arduous to the least dangerous/most desirable: CENTCOM in Afghanistan, Iraq, or the Horn of Africa; all other CENTCOM; CONUS; and OCONUS other than CENTCOM. The appendix identifies the locations that are included in each of these categories.

Changes in Locations

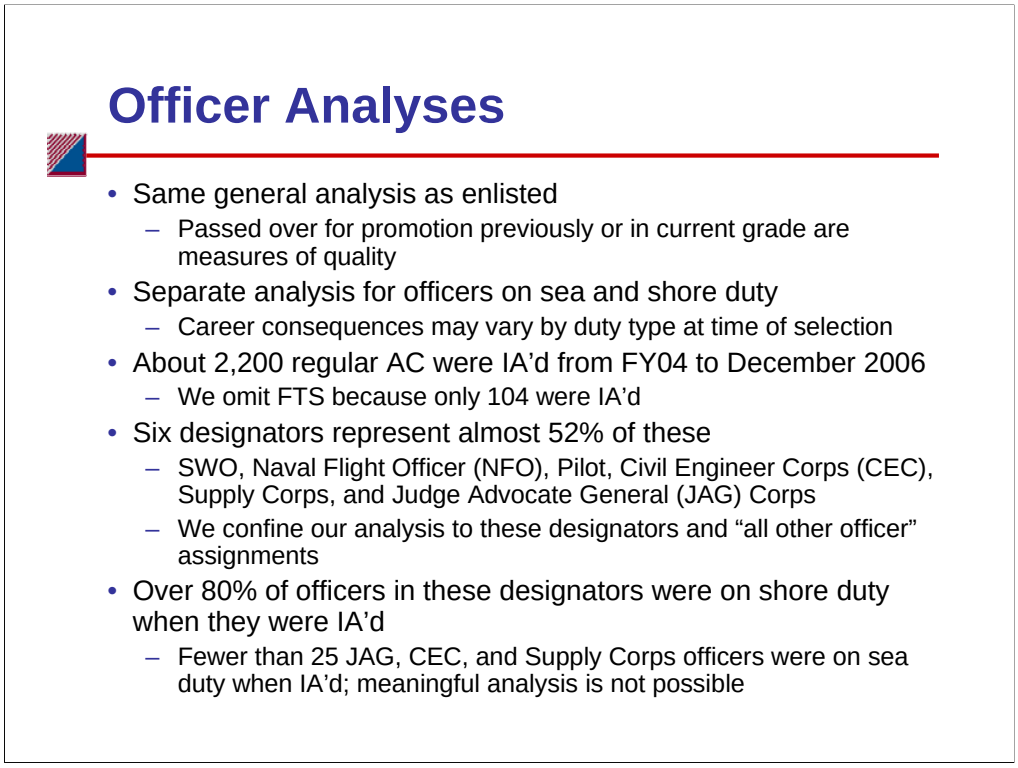
	% of Rating IA'd in CENTCOM (Afghanistan, Iraq, HOA)		% of Rating IA'd in CENTCOM-Other		% of Rating IA'd in OCONUS		% of Rating IA'd in CONUS	
	FY05	FY06/7	FY05	FY06/7	FY05	FY06/7	FY05	FY06/7
IT	74%	79%	16%	12%	4%	5%	6%	5%
MA	37%	41%	14%	37%	50%	22%	0	0
OS	66%	86%	9%	7%	23%	6%	2%	1%
Seabee	93%	95%	0	0	2%	1%	4%	4%
SK	62%	85%	15%	9%	18%	4%	5%	3%
YN	42%	65%	15%	8%	32%	16%	12%	12%

In this slide, we show the differences in the location of assignments for the six largest ratings, both across ratings and within ratings across the two time periods. For instance, almost all Seabees were assigned to CENTCOM in both periods, while there was a large decrease in the proportion of MAs assigned to OCONUS IA'd in FY06/7. The change in location for MAs is most likely due to changes in the status of requirements at Guantanamo.

Results for Location of Assignments

- When we control for FY, rating, gender, family status, paygrade, highest quality, and race/ethnicity, there is only one statistically significant difference
  - Married Sailors were less likely than single Sailors to be IA'd to CENTCOM
    - 68% vs. 72%
- No racial/ethnic or quality bias in any location, either time period

We ran separate logistic regressions on the probability of being assigned to each of the four categories of locations described previously, for all Sailors IA'd in this time period, controlling for the factors noted above. For all locations, the only statistically significant finding was that married Sailors were less likely to be assigned to CENTCOM (Iraq, Afghanistan, HOA) than single Sailors.

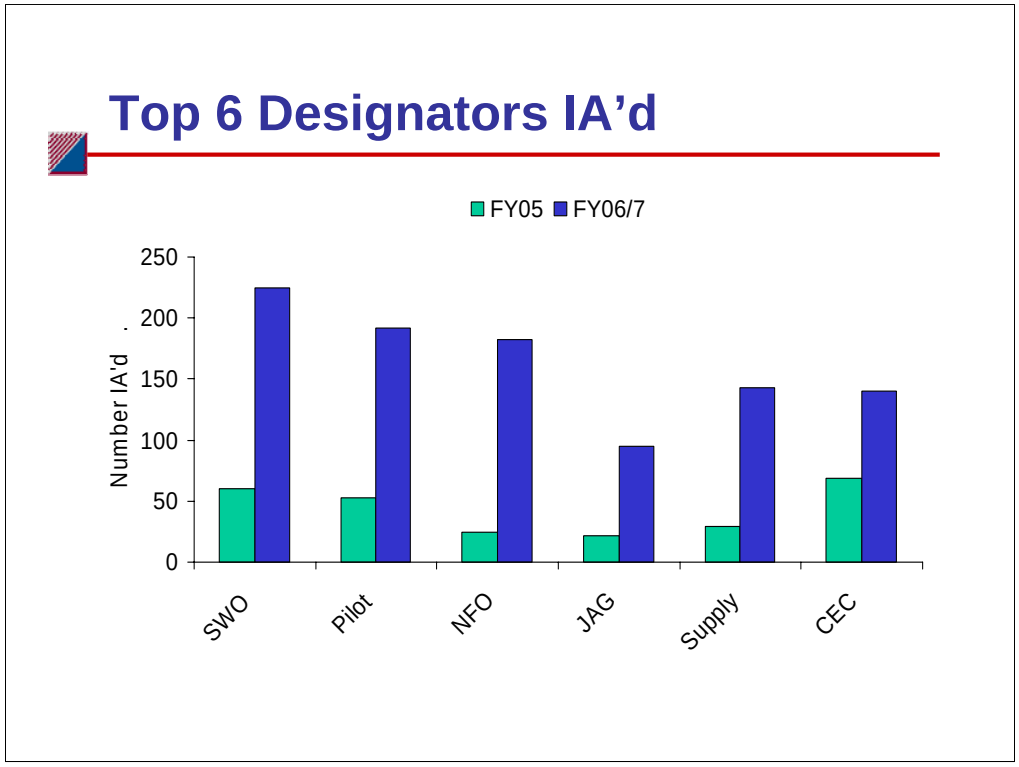


We turn now to our analysis of the selection and assignment of officers. Our analysis is similar to that for the enlisted ranks, with two major differences.[1] First, we include two measures of quality: (1) the officer was passed over for promotion in his/her previously held rank, and (2) the officer was passed over for promotion to the rank above the one held at deployment for those IA'd, or in October 2004 for the control group.

In addition, unlike our enlisted analysis of the selection of Sailors for an IA assignment, we estimate separate regressions for officer selections based on whether the officer was on sea or shore duty. Far fewer officers than Sailors were on sea duty when they were selected, perhaps because an IA assignment would cause greater career disruption for officers on sea duty than it would for enlisted Sailors. As a consequence, the selection criteria may be very different for officers who are on sea duty than for those on shore duty. Because there were so few selected for an IA assignment while on sea duty, we are not able to estimate regressions for JAG (3 IA'd), CEC (13 IA'd), and Supply Corps (22 IA'd) officers on sea duty.

As with the enlisted, we do not include FTS in our analyses because of their small numbers. Instead, we concentrate on the top 6 designators in terms of the number selected for IA. We also estimated "all other officer" regressions for officers on shore and sea duty who were not in the top 6 designators estimated separately. We include only those designators with at least 1 officer IA'd on that duty type.

[1] We use Type Assignment (TA) on the OMT, codes "C" and "D," to classify officers on sea duty.



In this slide, we show the number of officers IA'd in these six designators, by fiscal year. All six experienced a large increase in requirements in FY06/7, and, unlike enlisted, no one designator dominates the requirements either year.

Predicted Relative Probability of Being IA'd: Shore Duty

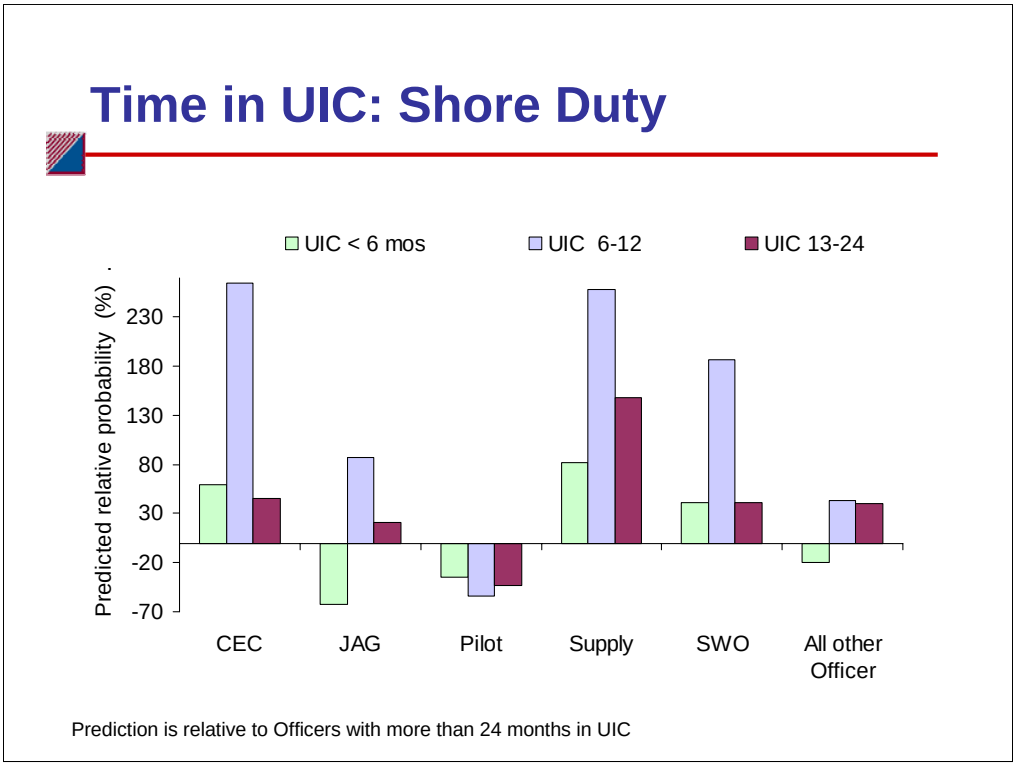
	CEC	JAG	NFO	Pilot	Supply	SWO	All other Officers
Men						6.9%	3.7%
Women relative to men						-43%	-38%
Whites						6.7%	
Black relative to whites						+22%	
Hispanics relative to whites						-12%	
All other races relative to whites						-67%	
Single		24.4%	13.3%	8.0%			4.0%
Married relative to single		-51%	-43%	-44%			-20%
Overall probability	18.1%	15.9%	8.7%	5.2%	11.3%	6.6%	3.4%

Predicted probabilities shown in black; predicted relative probabilities shown in red and blue.

Again, we report only statistically significant results, and we express our findings in terms of the overall predicted probability, the predicted probability for the reference group, and predicted relative probabilities. We begin with officers on shore duty.

Parental status and quality (being passed over for promotion) were not statistically significant for any of the designators and, therefore, are not included in the table above. Marital status, however, is important for three of the designators (JAG, NFO, and Pilot), as well as for the "all other officers" equation. In all of these cases, married officers were less likely—in some cases, far less likely—to be IA'd than their single counterpart.

Black SWOs on shore duty were the most likely to be IA'd, while other minorities were far less likely than whites or blacks to be IA'd. And gender was significant only for SWOs and "all other officers"; in both cases, men were more likely than women to be IA'd.



Again, our graph above reports the predicted probability of being IA'd relative to officers with more than 24 months in UIC. For reference, the predicted probability of being IA'd for this reference group of officers in the CEC, JAG, Pilot, Supply, SWO, and all other officer designators is 9.9, 15.2, 8.1, 5.0, 3.9, and 3.0 percent, respectively. Time in UIC was not significant for NFOs on shore duty.

Similar to enlisted, those with less than 6 months in their UIC were usually the least likely to be selected (or to volunteer) for IA assignments. Unlike enlisted, however, those with long tenures are not consistently unlikely to be selected. In fact, Pilots on shore duty with a long tenure in their UIC were far more likely to be IA'd than all other Pilots.

Predicted Relative Probability of Being IA'd: Sea Duty

	NFO	Pilot	SWO	All other officer
Whites			2.3%	
Blacks relative to whites			-22%	
Hispanics relative to whites			+109%	
All other races relative to whites			+117%	
No children		1.3%		
Children relative to no children		+131%		
Not passed over		1.9%		
Passed over currently relative to those not passed over		+258%		
In UIC > 24 months	6.6%			
In UIC < 6 months relative to >24 months	-97%			
In UIC 6-12 months relative to >24 months	-47%			
In UIC 13-24 months relative to >24 months	-68%			
Overall probability	3.3%	2.1%	2.6%	3.0%

Predicted probabilities shown in black; predicted relative probabilities shown in red and blue.

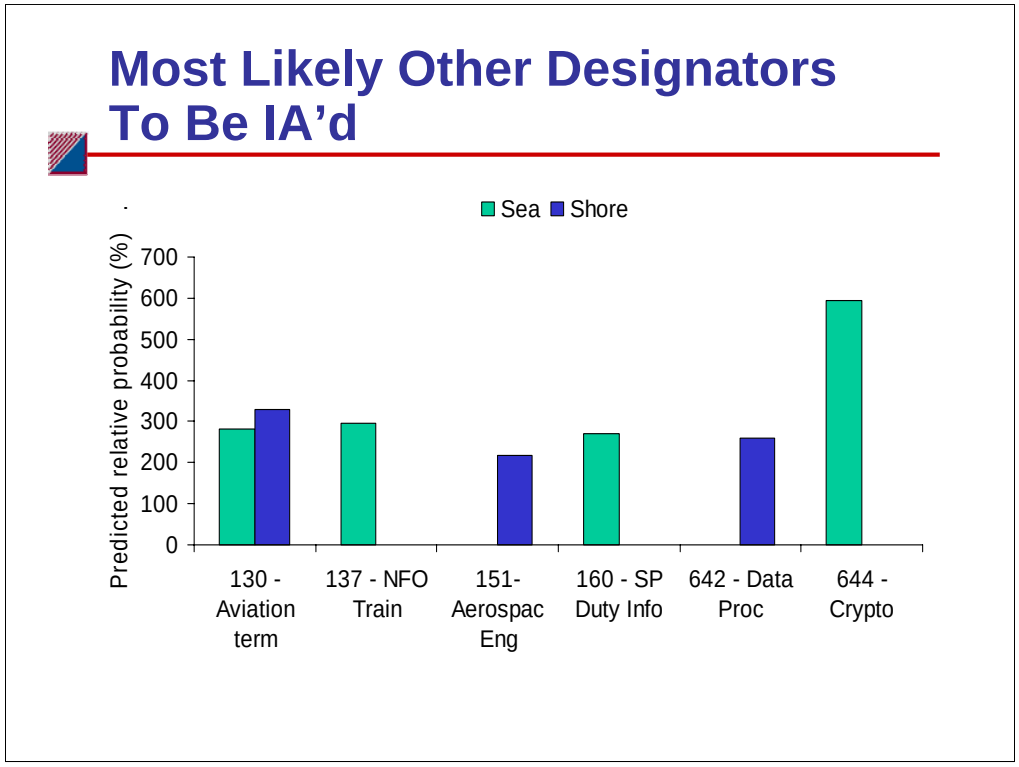
We report on our results for officers on sea duty in this slide. Recall that we could not include CEC, JAG, and Supply Corps officers in our analysis of those on sea duty. In addition, gender and marital status were not significant for any of the remaining categories of officers and, therefore, are excluded in the table above.

SWO is the only designator for which race is a statistically significant factor—both for those on sea duty and those on shore duty. Black SWOs were the least likely to be selected for IA duty on sea duty, but the most likely on shore duty. Conversely, other minorities were more likely to be IA'd on sea duty, but less likely on shore duty.

Parental status was significant only for Pilots on sea duty, and the results are fairly counterintuitive; pilots with children, compared with those without, were far more likely to be selected for IA.

Pilots on sea duty are also the only category of designator and sea/shore duty for which quality mattered. Pilots on sea duty who were passed over for promotion in their current rank were 258 percent more likely than their peers when we control for other factors.

Because time in UIC was significant for just one designator, we report those findings here. While time in UIC for NFOs on shore duty was not significant, NFOs on sea duty with long tenures in their UICs are far more likely to be IA'd.



As we noted, other than the top 6 designators for which we estimated separate regressions, no other designator had a sufficient number of observations to conduct a separate analysis. By combining all of the remaining designators into one equation each for officers on sea and shore duty, we were able to estimate the relative probability that an officer in each of these designators was IA'd, controlling for relevant factors. Of these remaining designators, we wanted to know whether officers in certain designators were more likely to be IA'd than others.

Using our regression results reported earlier, we predicted the relative probability that an officer in each designator would be IA'd, controlling for rank, security clearances, quality, and so on. We summarize the designators with the greatest relative probability of being IA'd in each of the duty type categories in this slide. Note that officers in designator 130—URL, Aviation Terminated—are some of the most likely to be IA'd, regardless of whether they are on sea or shore duty.

Officers in certain designators would be more likely to be IA'd if the requirement for that expertise was relatively high, or if officers in that designator were disproportionately selected for generic IA assignments. A review of the billet descriptions for officers in the top 6 designators indicates that, while some officers were filling what appeared to be fairly generic billets, such as "Executive Officer" or "Action Officer," most were filling billets that required a particular expertise.[1] The same is not true for all of the designators included in this slide.

[1] For instance, only officers with that or a related designator were filling the billet, or the title of the billet indicated a particular expertise.

For instance, of the 20 or so different types of billets that officers in designator 130 filled, more than half of the billets were generic, with such titles as “UN Military Observer,” “Executive Officer,” “Case Writer,” and “Ethiopia Country Desk.”

It is not clear whether the Navy disproportionately selected officers in designator 130, or officers in that designator disproportionately volunteered for IA assignments. If they were more likely to be selected, rather than to volunteer, it could be that the Navy has chosen to select officers who have failed in their due-course career path rather than to divert more successful officers for IA assignments. If, instead, it is a function of greater volunteerism on the part of these officers, it may be—similar to our enlisted hypothesis—that they do so with the expectation of greater advancement opportunities as a result of an IA assignment. Again, we will discuss officer promotion later, but we note that this is also an unrealistic expectation for officers.

Total Time TAD

- Average days spent TAD:
  - 221 for JAG
  - 244 for Supply Corps
  - 245 for CEC
  - 260 for Pilot
  - 286 for SWO
  - 308 for NFO
- We continue to restrict analysis to the six designators
  - We combine designators and estimate one regression
- We control for designator, gender, race/ethnicity, quality, paygrade, and FY
- No statistically significant difference

Similar to our enlisted analysis, we combine designators into one multiple regression estimate of the number of days spent TAD. Again, we confine our analysis to the six designators noted above, and we drop time in UIC and disregard whether the officer was on sea or shore duty. We report the unadjusted average days spent on TAD by designator in the slide above.

When we control for relevant factors, we find no statistically significant difference in the total time TAD for any of the designators. As our previous graph illustrated, there was an increase in the average days TAD in FY06/7, but, as before, we do not report that here because it reflects a change in IA requirements rather than differences in selection or assignments that were not material to the IA requirement.

Changes in Locations

	% of Rating IA'd in CENTCOM (Afghanistan, Iraq, HOA)		% of Rating IA'd in CENTCOM-Other		% of Rating IA'd in OCONUS		% of Rating IA'd in CONUS	
	FY05	FY06/7	FY05	FY06/7	FY05	FY06/7	FY05	FY06/7
CEC	93%	95%	2%	2%	0%	0%	6%	3%
JAG	86%	80%	0%	0%	0%	2%	14%	18%
NFO	29%	78%	46%	13%	4%	1%	21%	8%
Pilot	36%	64%	45%	16%	4%	6%	15%	14%
Supply	76%	83%	17%	10%	3%	1%	3%	6%
SWO	47%	70%	15%	8%	23%	6%	15%	16%

As with enlisted IA assignments, some designators experienced fairly large changes in the location of IA assignments between FY05 and FY06/7. In particular, the proportion of IA assignments in CENTCOM (Afghanistan, Iraq, HOA) more than doubled for NFOs and increased almost 80 percent for Pilots. And, except for SWOs assigned in FY05, relatively few officers were assigned to OCONUS locations.

Location of IA Assignments

- Similar to days TAD, we combine designators
- Control for same factors
- Run separate regressions on each category: CENTCOM (Iraq, Afghanistan, HOA), Other CENTCOM, Other OCONUS, CONUS
- Only statistically significant results were
  - Married officers were 3% *less* likely to be IA'd to CENTCOM (Iraq, Afghanistan, HOA) and16% *more* likely to be IA'd to other CENTCOM than the average officer

Once again, we combine the six designators and estimate logistic regressions of the probability of being IA'd to each of the four locations. We included gender, marital and parental status, quality, race/ethnicity, paygrade, and designator.

Our only statistically significant findings were that married officers were less likely to be IA'd to CENTCOM (Iraq, Afghanistan, HOA) but more likely to be IA'd to other CENTCOM locations.

Task 1: Summary of Results

	Selection	Location	Duration
Enlisted	• Males, those on shore duty generally more likely to be IA'd • Time in UIC important. For some ratings, quality, family status, and race/ethnicity are important	• Married Sailors less likely to be IA'd to CENTCOM	• Men spend 18 more days than women
Officers	• Time in UIC important. Gender and race/ethnicity important only for SWOs • Married, those on sea duty are generally less likely to be IA'd • Pilots passed over for promotion are far more likely to be IA'd	• Married less likely to be IA'd to CENTCOM (Afghanistan/ Iraq/HOA) and more likely to other CENTCOM	• No difference
FTS	• No more or less likely to be IA'd with one exception • HM FTS on shore far less likely to be IA'd	• No difference	• No difference

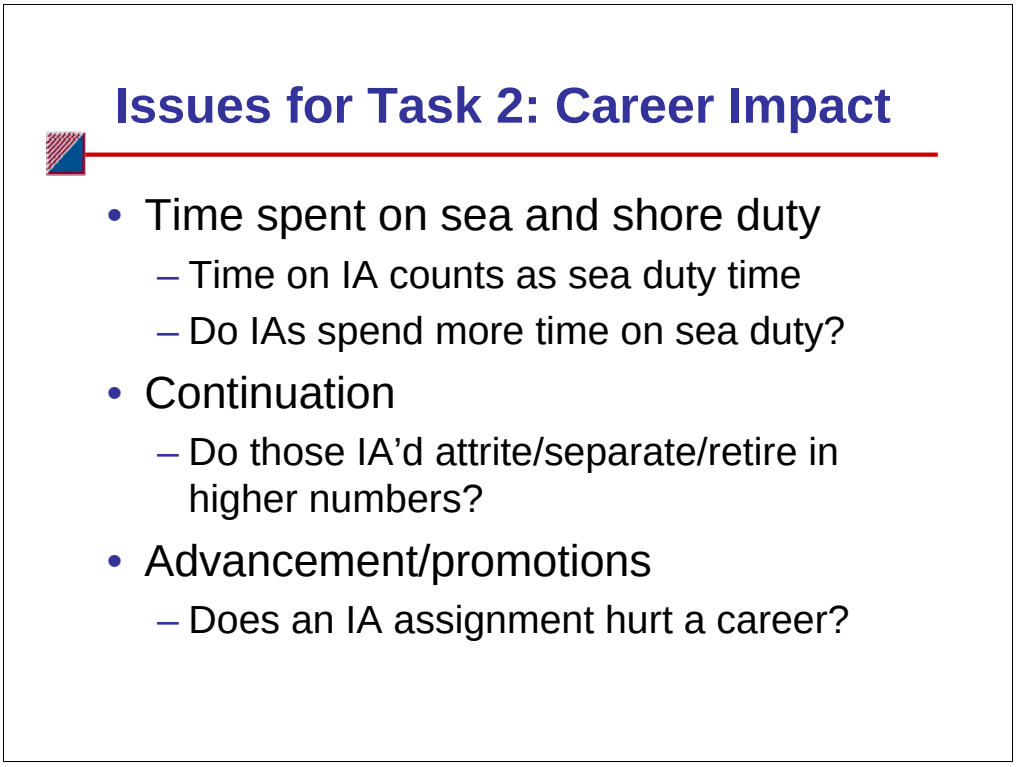
We summarize our findings for Task 1 in this slide. Regarding enlisted Sailors who were IA'd, we found some differences in the probability of being selected for an IA assignment based on nonmaterial characteristics. We emphasize the fact, however, that we do not know what impact volunteerism had on selection outcomes.

Fairly consistently, those with the shortest and longest tenures in their UICs were the least likely to be IA'd. We found that married Sailors are less likely to be IA'd to CENTCOM, and men spend slightly more time TAD than women, when we hold all other factors constant.

Our officer analysis yielded many similar findings. In particular, time in UIC was an important consideration in the selection of IA candidates, and, similar to enlisted Sailors, personal characteristics appear to have been used as selection criteria (or related to greater volunteerism) for some designators. In general, being passed over for promotion before being selected was not a criterion; the one exception is that Pilots who were on sea duty at the time of selection were far more likely to be selected if they had been previously passed over.

Married officers were, in general, less likely to be selected. Once selected, they were less likely to be IA'd to Afghanistan, Iraq, or the Horn of Africa but more likely to be IA'd to other CENTCOM locations than their single peers. And we found no difference in the duration of IA assignments.

We found that Full Time Support Servicemembers were no more or less likely to be IA'd with one exception: Hospital Corpsman (HM) on shore duty were far less likely to be IA'd.



We turn now to our next section—following Servicemembers after they return from IA duty. In particular, we are concerned with their continuation in the Navy relative to their non-IA'd peers, their duty assignments, and their career progression. Our IA sample sizes are reduced because we can observe the behavior of only those who have returned from IA duty, which typically lasts several months. To increase our sample sizes, we include FY03–04 IA assignments. Our control group remains Servicemembers who were in inventory on 1 October 2004.

Our first analysis concerns whether, relative to their non-IA'd peers, IA'd Servicemembers end up with additional time in sea or shore duty because of the assignment. The consequences, if this were true, would vary by whether the Servicemember is enlisted or an officer and by rating/community within these categories. In particular, officers with shortened sea tours may not be able to fulfill all of the career milestones necessary for promotion.

We then analyze the continuation rates of IA'd Sailors, relative to their non-IA'd peers. We look at 12-, 18-, and 24-month continuation after the date of deployment, compared with the continuation of Servicemembers in inventory on 1 October 2004 who were not IA'd.

Finally, we turn to career progression to determine whether IA'd Servicemembers have been hampered in their career as a consequence of the IA assignment—particularly in terms of advancement/promotion. For the enlisted community, we looked at whether IA'd Sailors were less likely to advance after their deployment, compared with their non-IA'd peers. For officers, we look at whether the Sailor was more or less likely to be passed over for promotion after deployment.

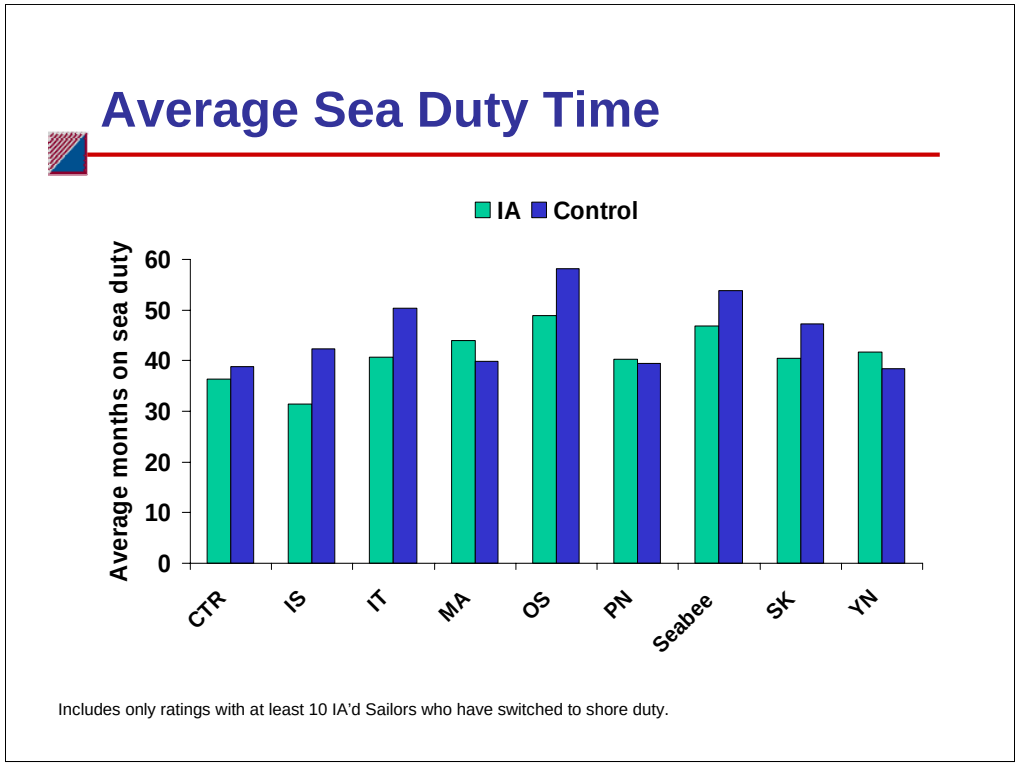
We begin with our analysis of enlisted phenomena, and time spent on sea and shore duty specifically. For this analysis, we confine our IA sample to Sailors who have completed their IA tour and have switched from the duty they were on (i.e., sea or shore) since returning. We do this to ensure that we are observing completed sea/shore rotation for these Sailors. We then measure the total time they spent in the type of duty they were on when they were IA'd. In other words, if a Sailor was on sea duty on the date of deployment, we follow him or her until he or she switches to shore duty. Our IA sample includes 235 Sailors on sea duty and 309 on shore duty

According to NAVADMIN 273/06 (Oct 2006), time spent on IA is counted toward sea duty so that Sailors who were on sea duty when IA'd will have continuous episodes of sea duty throughout their IA assignments. Sailors who were on shore duty when deployed, however, will have the shore duty "clock" stopped while on IA duty. We restart the shore duty clock when they return from IA duty.[1]

In most cases, we use the End of Obligated Service (EOS) date provided by PERS-463 as the date the Sailor returned from IA duty. The exception is when a Sailor has a new UIC in his or her EMR record that is after the IA deployment date but before the EOS. We conclude that these Sailors returned early from IA duty, and this includes just 49 Sailors in our sample. For these, we restart the shore duty clock on the date of the new UIC.

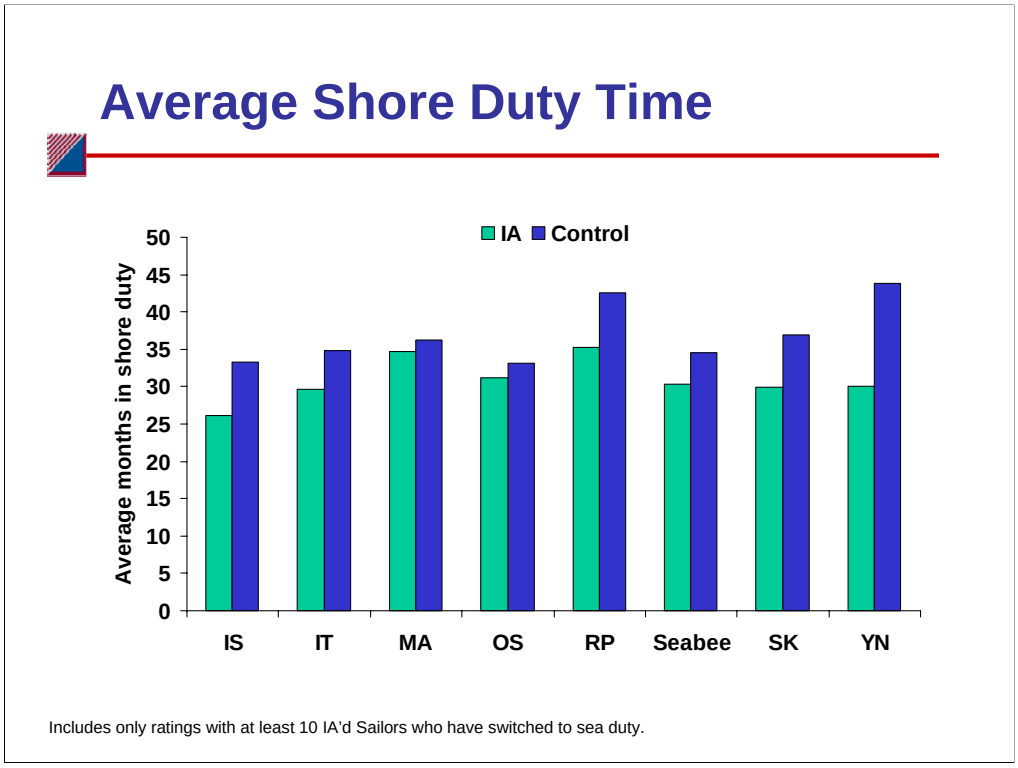
[1] The instruction states that Sailors on shore duty when IA'd will have their shore duty clock frozen with the following guidelines: 100-percent day-for-day credit for an IA tour served in hazardous duty zones, and 50-percent day-for-day credit for an IA tour served outside hazardous duty zones. We intend to capture the total time spent in shore duty, not just what was credited, so we use the 100-percent credit for Sailors who were on shore duty, regardless of IA location.

Our control group consists of Sailors on active duty on 1 October 2004 who were not IA'd and were still on active duty on 1 April 2007. We then calculate the amount of time each spent in his or her last completed sea or shore duty. In other words, if the Sailor is currently on sea duty, we calculate the total amount of time spent in his or her previous shore duty. We deduct "idle" time, defined as time spent as a student, transient, holdee, and so on.

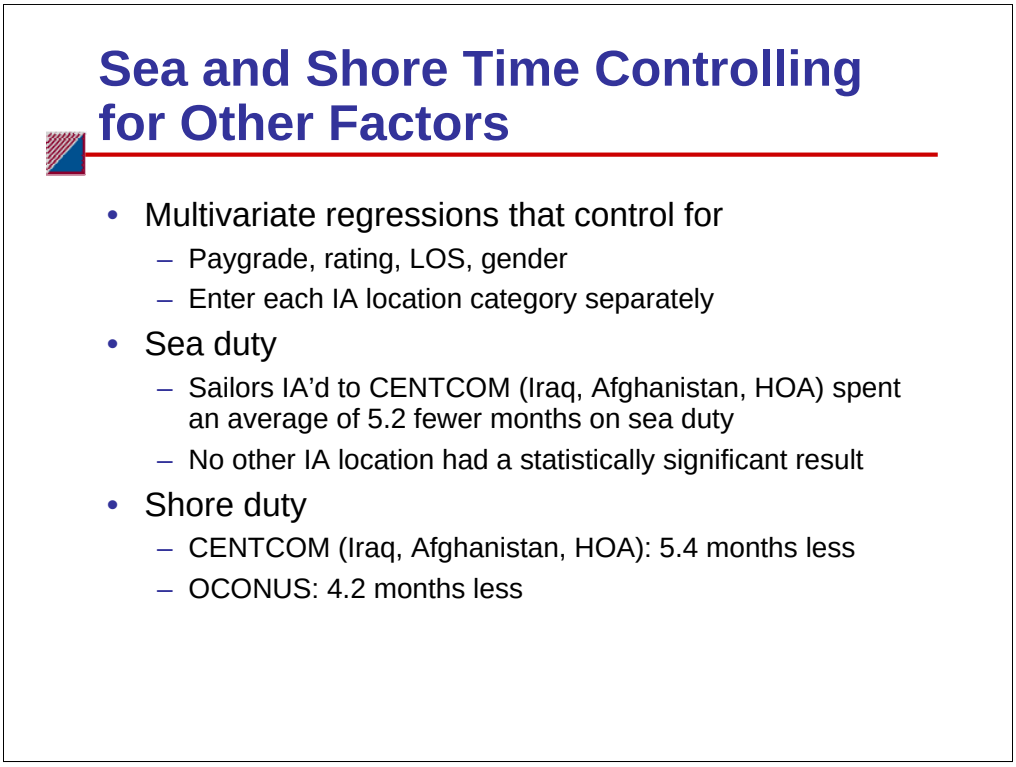


In this slide, we report the average months spent on sea duty for IA'd Sailors who were on sea duty when deployed and have since switched to shore duty. We include only ratings with at least 10 IA'd Sailors who meet these criteria. For comparison, we also report the average months spent on their last sea duty tour for all non-IA'd Sailors in our control group who are now on shore duty.

CTRs, Intelligence Specialists (ISs), ITs, OSs, Seabees, and SKs who were on sea duty when IA'd spend less time on sea duty than their non-IA'd peers, while MAs, Personnelmen (PNs), and YNs who were on sea duty when IA'd spent slightly more time on sea duty than their peers who were not IA'd. Due to small sample sizes, however, these differences may not be statistically significant. More important, we aren't controlling for paygrade, so any differences could be a function of differences in the distribution of IA'd Sailors across paygrades within these ratings. We need to control for this, and other relevant factors, which we do subsequently.



We report similar statistics for Sailors who have completed their shore duty since returning from IA assignments, compared with comparable statistics for their non-deployed peers. Across ratings, it appears that IA'd Sailors usually spend less time in shore duty. Again, however, we have to control for other relevant variables, which we do next.



To control for relevant factors that affect sea/shore rotation, we estimated multivariate regressions of the time spent in sea or shore duty (separate equations for each), controlling for paygrade, rating, length of service (LOS), and gender. To see whether location of IA duty mattered, we included each of the four IA location categories as separate variables.

When we control for these relevant factors, an IA assignment to CENTCOM for Sailors who were on sea duty at the time of assignment resulted in a reduction of 5.2 months in sea duty. No other IA assignment had a statistically significant coefficient for time spent in sea duty.

Sailors who were on shore duty when they were IA'd to CENTCOM (Iraq, Afghanistan, or HOA) or OCONUS spent less time on shore duty. When we control for relevant factors, Sailors IA'd to CENTCOM spent 5.4 fewer months on shore duty than non-IA'd Sailors, while those assigned to OCONUS spent 4.2 fewer months on shore duty. The coefficients on other CENTCOM locations and CONUS were not statistically significant.

In other words, Sailors on shore duty who were assigned to Iraq, Afghanistan, HOA, or other OCONUS locations rolled to sea duty after a shorter shore tour than their non-IA'd peers—even after their shore tours were interrupted with an IA tour.

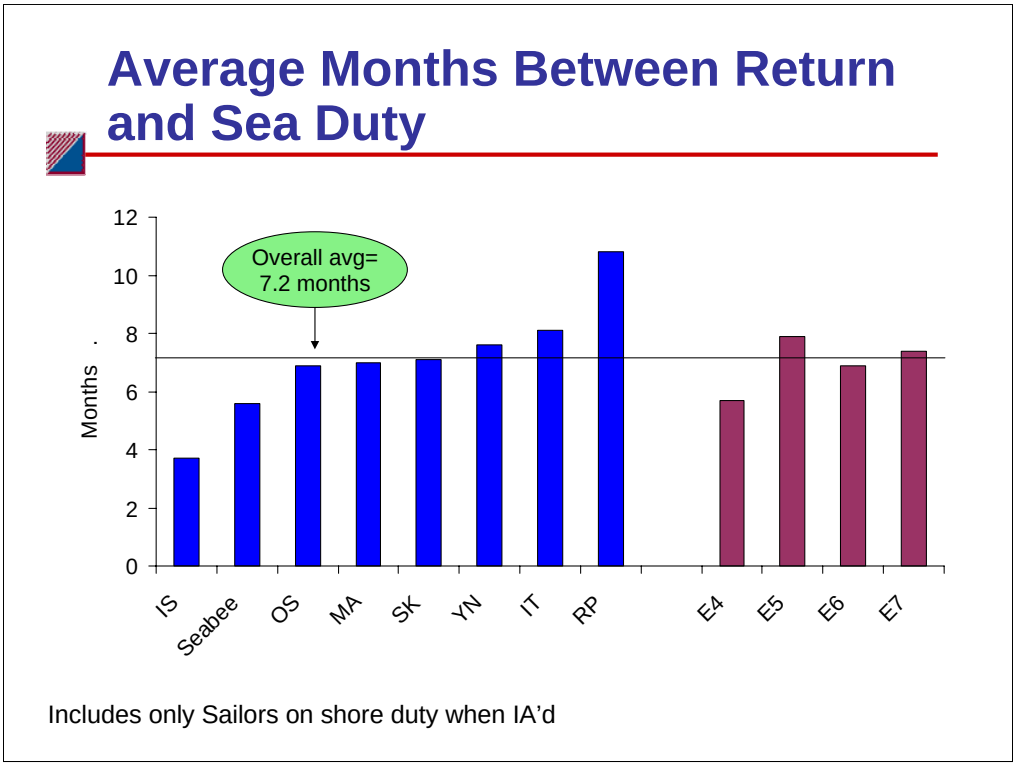
Time Between Return and Change in Duty Type

- Are Sailors on shore duty when IA'd sent to sea duty soon after returning?
- We observe behavior of only Sailors who have returned from IA and have changed duty type
  - Includes 216 on sea duty when IA'd, 299 on shore duty
- Average number of months between completion of IA and change in duty type:
  - 5.7 months for those on sea duty when IA'd
    - 50% had 4 or fewer months
  - 7.2 months for those on shore duty when IA'd
    - 50% had 5 or fewer months
  - Varies by rating and paygrade

Given that IA'd Sailors have shorter overall sea and shore tours than their non-IA'd peers, we wanted to know whether the time between returning from deployment and a change in duty type (sea to shore or shore to sea) was also relatively short. Measuring this interval is especially important for those who are on shore duty when they deploy since, in addition to a shortened overall shore tour, returning them to sea duty soon after returning from their IA (sea duty) tour may have a significant impact on longer-term continuation.

As before, we can observe this metric only for Sailors who have returned from IA duty and have changed duty type. This includes 216 Sailors on sea duty when they were IA'd and 299 on shore duty.

We note in this slide that Sailors on shore duty when deployed do have a slightly longer interval before changing duty type than those on sea duty (5.7 months and 7.2 months, respectively). Since averages are often sensitive to very large values, we also note the median: 50 percent of IA'd Sailors on sea duty switch to shore duty within 4 months of returning from an IA deployment, and 50 percent of those on shore duty begin a sea duty tour within 5 months of returning. As we show subsequently, this duration varies by rating and by paygrade.

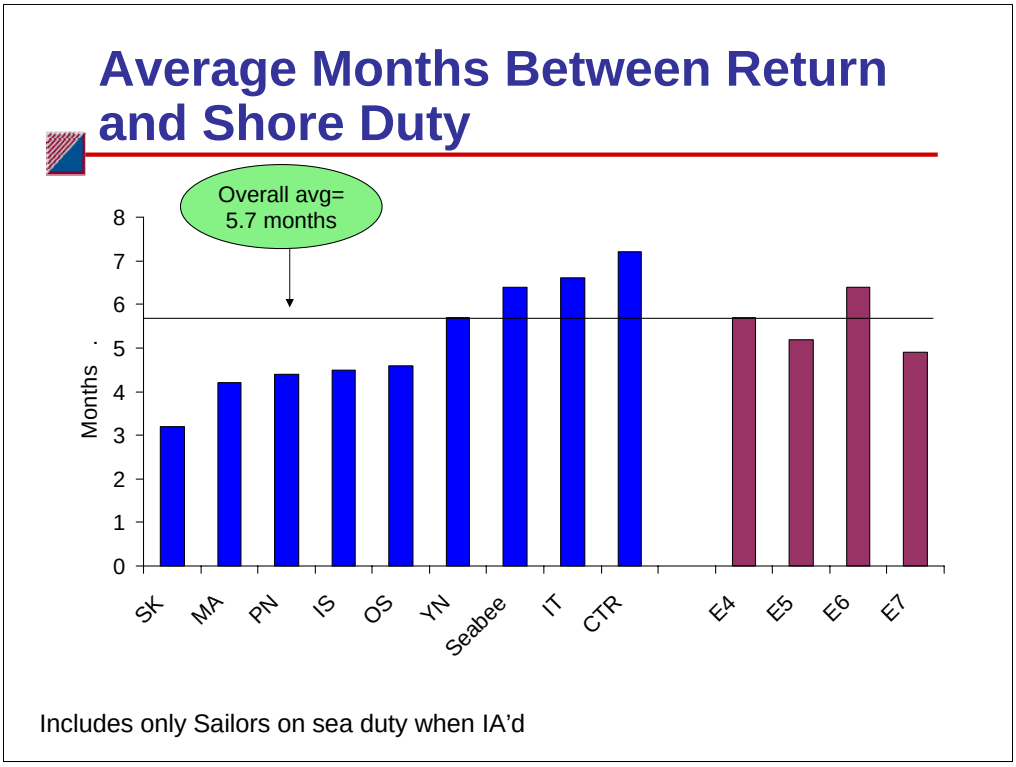


We first report our findings for Sailors who were on shore duty when they deployed on an IA assignment, including only those ratings with at least 10 Sailors who have completed their assignment and switched to sea duty. We rank them from the shortest to the longest duration.

Sailors in the IS rating continue on shore duty for an average of 3.7 months after returning from their IA tour and before going back to sea duty. Seabees also have a relatively short period of time; they remain on shore duty for 5.6 months. In contrast, RPs remain on shore duty three times as long as ISs and twice as long as Seabees; the average RP remains on shore duty for almost 11 months after returning from an IA deployment.

In terms of paygrade, E4s are returned to sea duty faster than all other paygrades (5.7 months faster, on average). We looked to see whether the returning IS Sailors were disproportionately E4s, which would help to explain their reduced time to sea duty, but that does not appear to be the case. For instance, 31 percent of the ISs were E4s, while 39 percent of the YNs and 26 percent of the MAs were E4s. Yet, unlike ISs, Sailors in these other ratings are not sent back to sea duty any faster than the average Sailor.

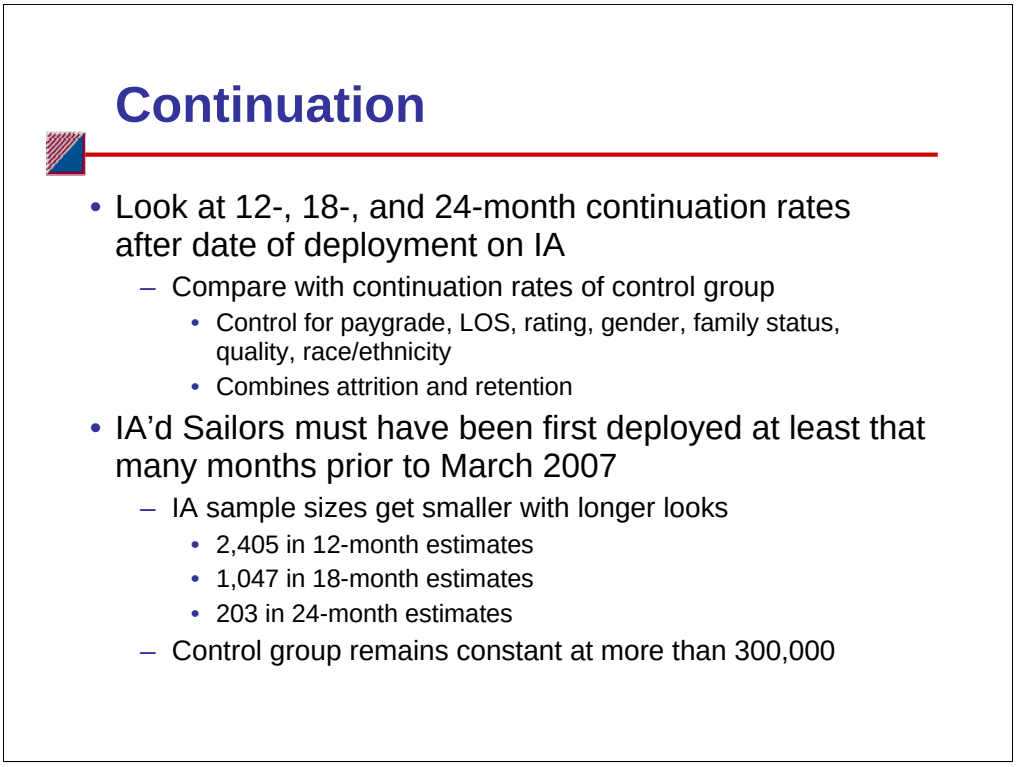
Differences in the interval between an IA tour and returning to sea duty may be a function of the rating's sea manning; those that are the most critically undermanned in sea duty may be more likely to return IA'd Sailors to sea duty faster than ratings with a healthier manning at sea. This may also be a contributing factor to differences in interval lengths by paygrade.



As before, we report findings only for ratings that had at least 10 Sailors on sea duty when deployed who have since switched to shore duty. This excludes the RP rating we reported on in the previous slide, but it adds the CTR and PN ratings.

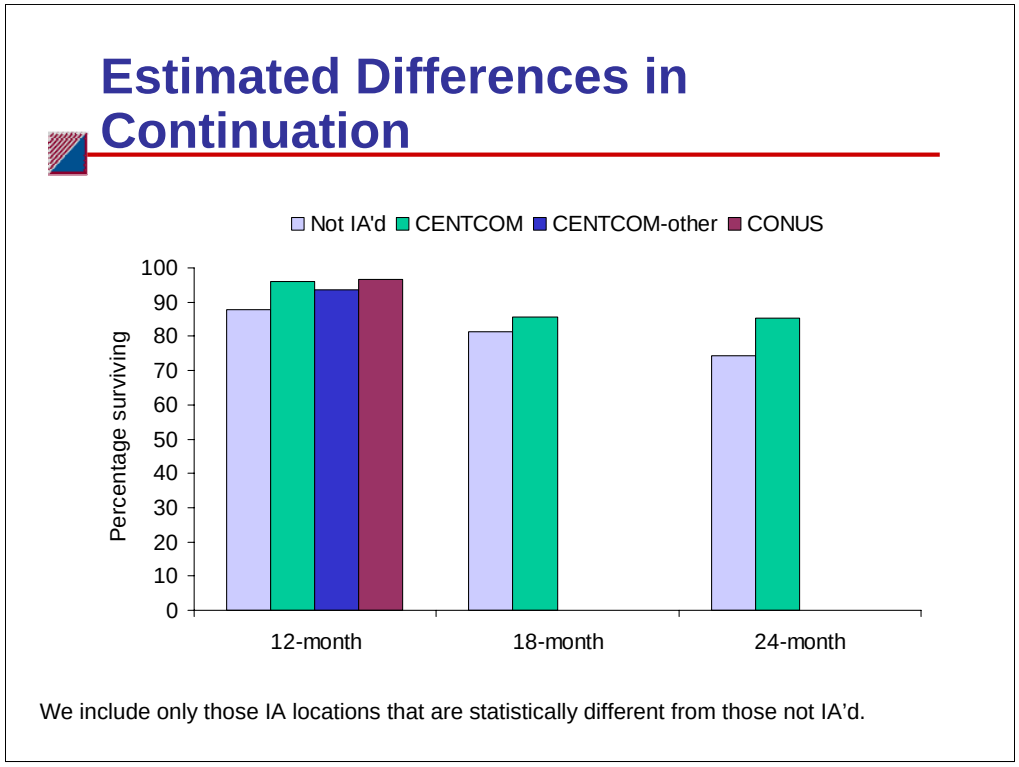
ISs are the only Sailors that have a below-average interval for both sea and shore duty. In contrast, ITs have an above-average interval for both sea and shore duty. Again, we speculate that variation in the length of the interval between returning from an IA assignment and changing duty type is most likely a function of differences in manning.

There is also more variation in timing with paygrade, with both E5s and E7s experiencing shorter intervals than E4s and E6s.



Our next analysis involves modeling continuation rates, which include both attrition and reenlistment behaviors. Since both outcomes vary depending on the Sailor's LOS and paygrade, we include these in our multivariate equations. Both behaviors are also correlated with gender, race/ethnicity, family status, and quality (as we have defined it previously), so we include these factors as well.

To be included, the IA'd Sailor had to be deployed at least x number of months prior to March 2007, where x is either 12, 18, or 24. This allows us to track the Sailor that length of time to see whether he/she was still in the Navy after x months. Because our control group is composed of Sailors in inventory on 1 October 2004, we are able to follow all of these Sailors for the full 24 months. This is not the case, however, for IAs. As the slide shows, the number of observations drops considerably as we increase the time window for continuation rates.



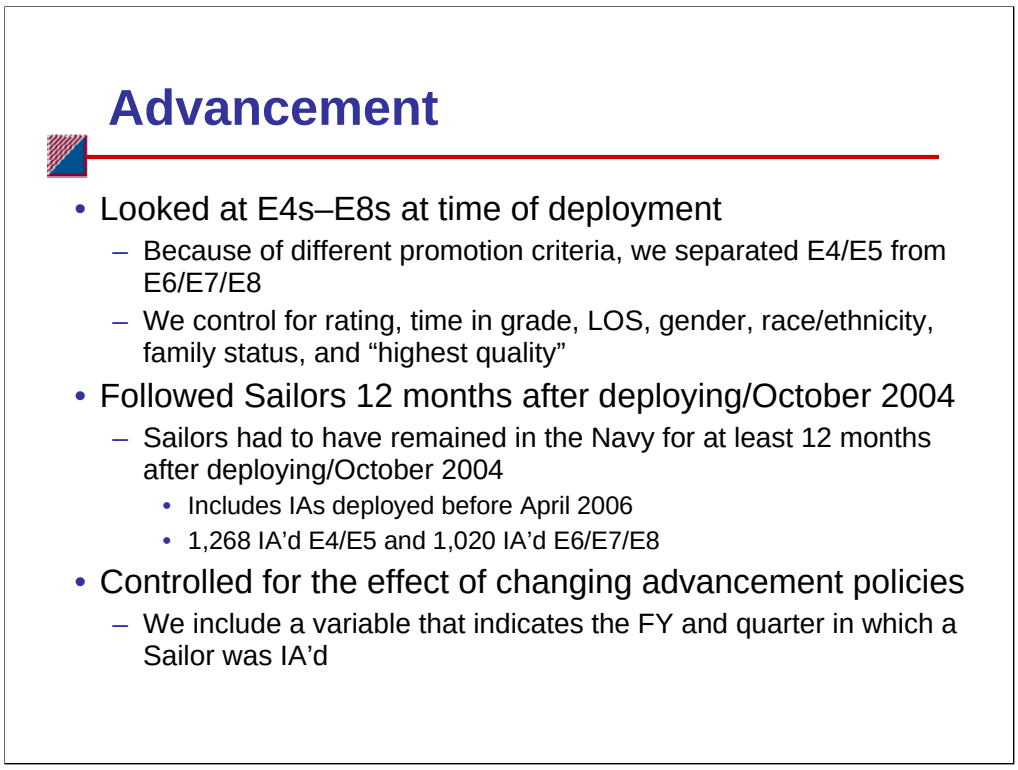
We report our multivariate regression findings above, including only those IA locations that had statistically significant results. In other words, their continuation had to be significantly different from that of the control group.

Most likely because more Sailors were IA'd to CENTCOM (Afghanistan, Iraq, and HOA), we have statistically significant results for all three continuation durations for Sailors IA'd to those locations. These Sailors consistently have higher continuation rates than the control group, even when we control for relevant factors. Likewise, Sailors IA'd to other CENTCOM locations and CONUS all had higher 12-month continuation than the control group (the results for OCONUS were not statistically significant).

Higher 12-month continuation rates may be a function of the fact that IA'd Sailors are deployed to their IA assignment for most of the 12-month period under study; it may be more difficult to attrite, separate, or retire when in theater. In addition, IA'd Sailors have been thoroughly screened for medical, family, or other issues, which is usually not the case for a large portion of the Sailors in the control group. Given this more careful screening, we would expect higher continuation rates for Sailors IA'd, all else equal, than their non-IA'd peers.

The higher 12-month continuation would also contribute to the higher 18-month and 24-month continuation if postdeployment continuation were unaffected by an IA deployment, which may be the reason why we continue to see slightly higher continuation for IA'd Sailors beyond 12 months.

In summary, then, IA'd assignments do not appear to decrease continuation rates and may, in fact, have a positive influence on retention decisions.



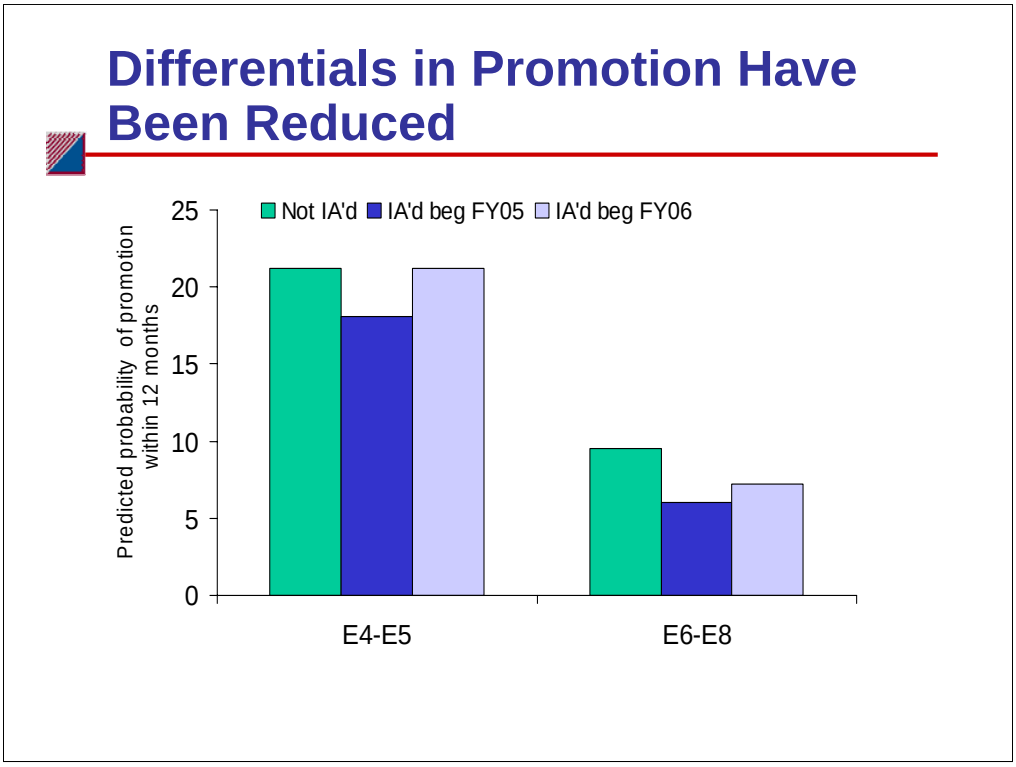
We wanted to know whether an IA assignment had an impact on a Sailor's career progression, particularly in terms of promotion. In particular, we looked at whether IA'd Sailors were less likely to promote after their deployment, compared with their non-IA'd peers.

On one hand, an IA assignment may have an impact on a Sailor's ability to study and/or take an advancement exam, which is one of the most important considerations for advancement to the junior- and mid-career paygrades. On the other hand, selection boards, which are required for advancement to senior paygrades, may not value IA assignments as highly as other factors considered for promotion. Because of the potential for differential effects of an IA assignment on exams versus selection boards, we estimate separate multivariate logistic regressions for Sailors in paygrades E4 or E5 at the time of deployment (or October 2004 for the control group) and for Sailors in paygrades E6, E7, or E8.

We want to control for their quality, so we continue to use our measure of "highest quality." This means that we exclude Sailors who were ever demoted, as we described previously. In addition, because the rate of promotions will vary by paygrade, rating, time in grade (TIG), and LOS, we also control for them. Further, even when we control for quality, the pace of promotion sometimes varies by gender and race/ethnicity, so we control for these characteristics as well.

We require Sailors to remain on active duty at least 12 months after deployment (or October 2004 for the control group) to control for the effect of attrition and retention on promotion probabilities. We then follow IA'd Sailors for 12 months from the date of deployment, and through September 2005 for the control group, to see whether they were promoted during this time. This means that we include IA'd Sailors only if they deployed before April 2006 (we follow them through the 31 March 2007 Enlisted Master Record).

Finally, the Navy implemented several changes to promotion policies throughout this time period specifically to mitigate negative consequences of an IA assignment. To control for these changes, we include a variable that indicates the FY and quarter in which the IA'd Sailor first deployed.



We report our predicted probability that a Sailor would be promoted within 12 months in this slide. Our predicted probabilities hold all other characteristics constant and compare the probability of promotion for three categories of Sailors: (1) those who were never IA'd, (2) IA'd Sailors who deployed in the first quarter of FY05, and (3) IA'd Sailors who deployed 1 year later, in the first quarter of FY06.

For both mid-career and senior enlisted, we predict that Sailors who were IA'd earlier were less likely to promote than their non-IA'd peers, but the differential has decreased over time. For instance, we predict that, holding all else constant, E4–E5 Sailors who were deployed in the first quarter of FY05 were 15 percent less likely to promote than their non-IA'd peers, while Sailors who deployed 1 year later were just as likely to promote by 12 months as their non-IA'd peers.

A similar phenomenon exists with promotion to senior ranks. IA'd Sailors in paygrades E6 through E8 who were IA'd in early FY05 were 36 percent less likely to promote than their non-IA'd peers, but that differential had been reduced considerably 1 year later; IA'd Sailors deployed in early FY06 were 24 percent less likely to promote than their non-IA'd peers. The predicted trend indicates that the differential continues to decrease and may soon reach zero, if it has not already done so.

Combined, these results indicate that, early on, IA'd Sailors, and senior enlisted more so than mid-career ones, were at a disadvantage in terms of promotion, but issues related to their promotion have been addressed.

Officer Phenomena—Sea/Shore Time

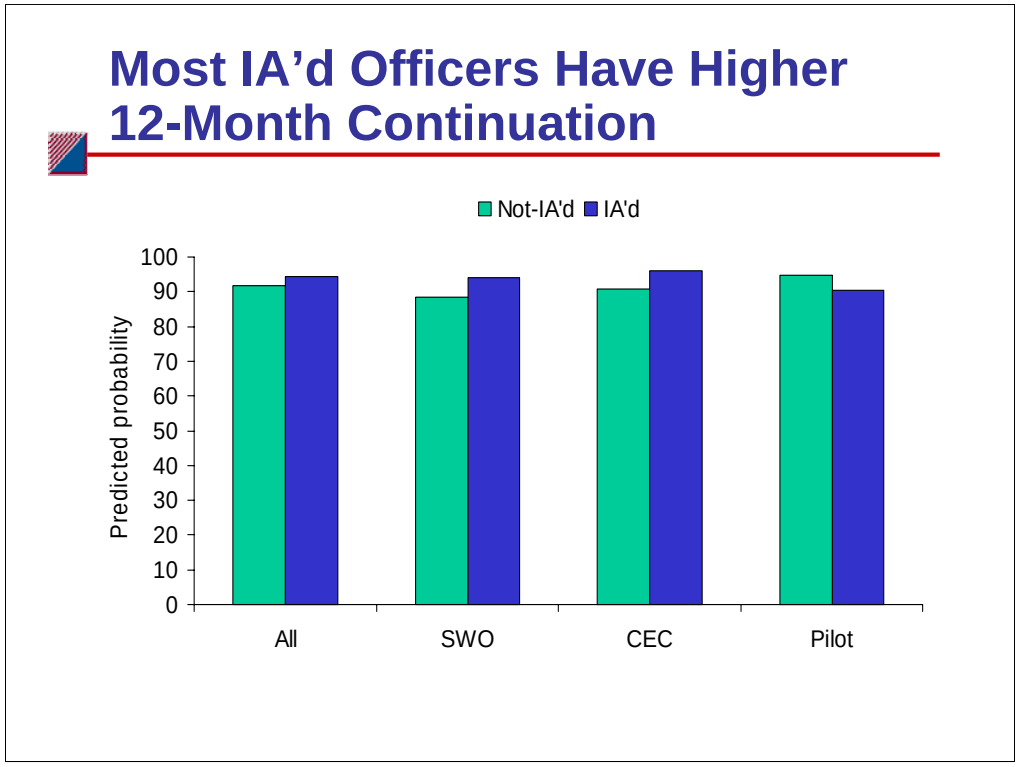
- Two separate estimates: Completed sea tours, completed shore tours
- Combine all officers O1–O6 only
  - 107 IA'd completed sea tours/17,500 control
  - 135 IA'd completed shore tours/6,400 control
- Control for rank, family status, passed over previously, passed over currently, race/ethnicity, designator
- No statistically significant difference in time spent on sea or shore for officers IA'd

Our analysis of differences in sea and shore tours for officers is similar to that for enlisted. We estimated two separate equations, one for completed sea tours and one for completed shore tours. Because this includes so few IA'd officers, we estimate one combined equation, including all designators (and paygrades O1 through O6 only) for each type of duty, and control for the relevant factors noted above. Our results indicate that there is no statistically significant difference in the sea or shore rotations for IA'd officers compared with their non-IA'd peers.

Officer Continuation

- Analysis is similar to enlisted
  - 12-, 18-, and 24-month continuation
  - We include everyone in control group
  - Only those IA'd at least x months before March 2007 are included
- Control for paygrade (O1–O5 only), designator, gender, race/ethnicity, family status, passed over previously, passed over currently
- One combined estimate for all officers, separate ones for each of the top 6 designators

We turn now to our continuation analysis. We estimate results for one combined sample and then separate estimates for each of the top 6 designators. As a reminder, in order to be included, the IA'd officer had to be deployed at least x number of months before March 2007, where x is 12, 18, or 24. All officers in the control group are included since we are able to observe them at least 24 months after October 2004. We note above the relevant factors that we include.



In general, IA'd officers have a higher probability than their peers of remaining in the Navy 12 months (after deployment). The exception is Pilots, who continue at a lower rate than their non-IA'd peers if they were IA'd. Because of decreasing sample sizes, none of the results were statistically significant for 18- and 24-month continuation except for Pilots. In fact, the continuation differential increases significantly with increasing duration. In particular, IA'd Pilots remain in the Navy after 18 months at a rate of 75 percent, compared with 92 percent for their non-IA'd peers, while IA'd Pilots' 24-month continuation is 70 percent, compared with 89 percent for their non-IA'd peers, even when we control for whether the Pilot was passed over for promotion at the time he/she was deployed, or October 2004 for the control group.

Our discussion of the reasons for higher enlisted continuation are relevant here as well; IA'd officers may not be able to separate while in theater, and they are more likely to have been screened for factors that are often associated with a higher probability of separating, such as medical and personal concerns.

IA'd Officer Promotion Experiences

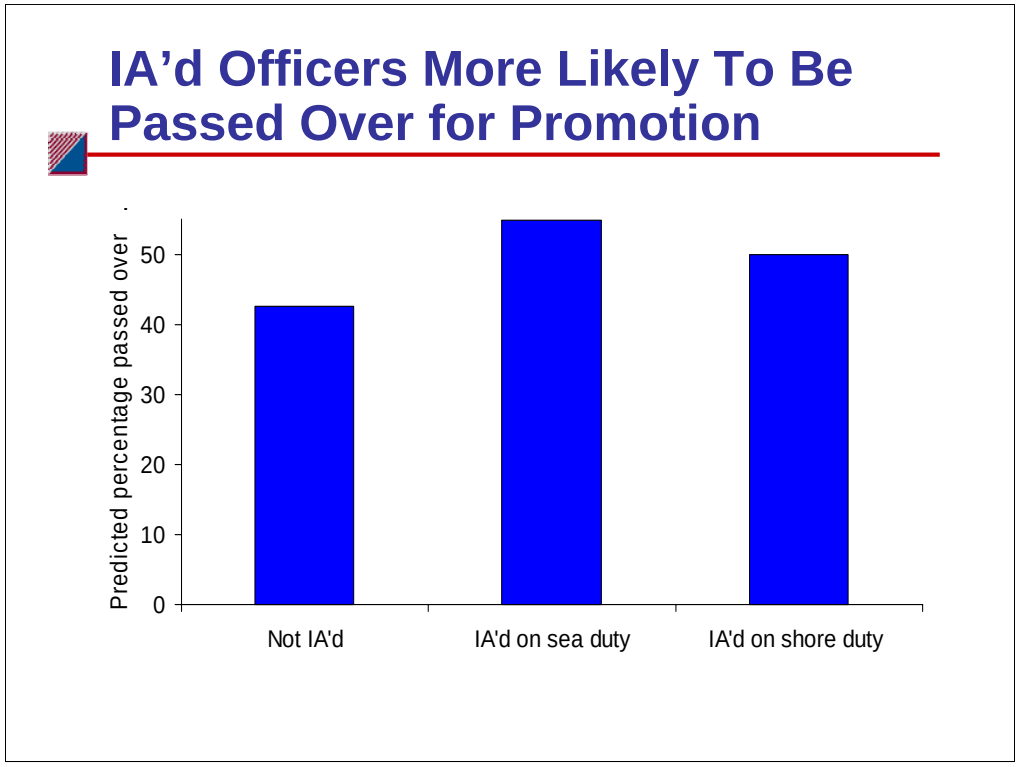
- Are IA'd officers more likely to be passed over in promotion when they return?
  - O3, O4, O5 at deployment/October 2004 only
- Included those IA'd before January 2007 who were put up for promotion after deployment
- Control group comprises those in the Navy October 2004 who were put up for promotion after that date
- We control for race/ethnicity, gender, marital status, children, rank, passed over in previous rank, passed over in current rank, designator
- Differentiated IA'd officers by whether they were on sea or shore duty at time of assignment
- Estimate all officers, and separately for top 6 designators IA'd

Officer career progression differs from the advancement criteria for enlisted Servicemembers. The most significant difference for our purposes is that officers must put themselves up for promotion at prescribed career milestones. With few exceptions, officers who fail twice for promotion must separate from the Service. As a consequence, we determine whether officers who were IA'd and put up for promotion are more likely than their peers to be passed over for promotion. We confine our analysis to officers who were put up for promotion since the date of deployment for IA'd officers, or after October 2004 for officers in our control group. Since promotion is fairly automatic for those in paygrades O1 and O2, we restrict our analysis to those in O3 through O5 at the time of deployment/October 2004.

To ensure that we are isolating the effect of an IA assignment on the probability of being passed over, we must control for other factors that affect promotion. These include paygrade, race/ethnicity, gender, family status, whether the officer was passed over in a rank lower than the one at deployment/October 2004 for IA'd/control group officers, whether he or she was passed for promotion at his or her current rank at deployment/October 2004, and designator (first 3 digits).

Because of the potential for different career effects of an IA assignment for an officer on sea versus shore duty, we also included a variable that indicated which type of duty the IA'd officer was on at the time of deployment.

We estimate several equations. For the first, we combine all O3–O5 officers who were put up for promotion since deployment/October 2004 and include dummies for the officer community (URL, RL, LDO, Staff). We also estimate separate regressions for the top 6 designators deployed on IA assignments in this period.

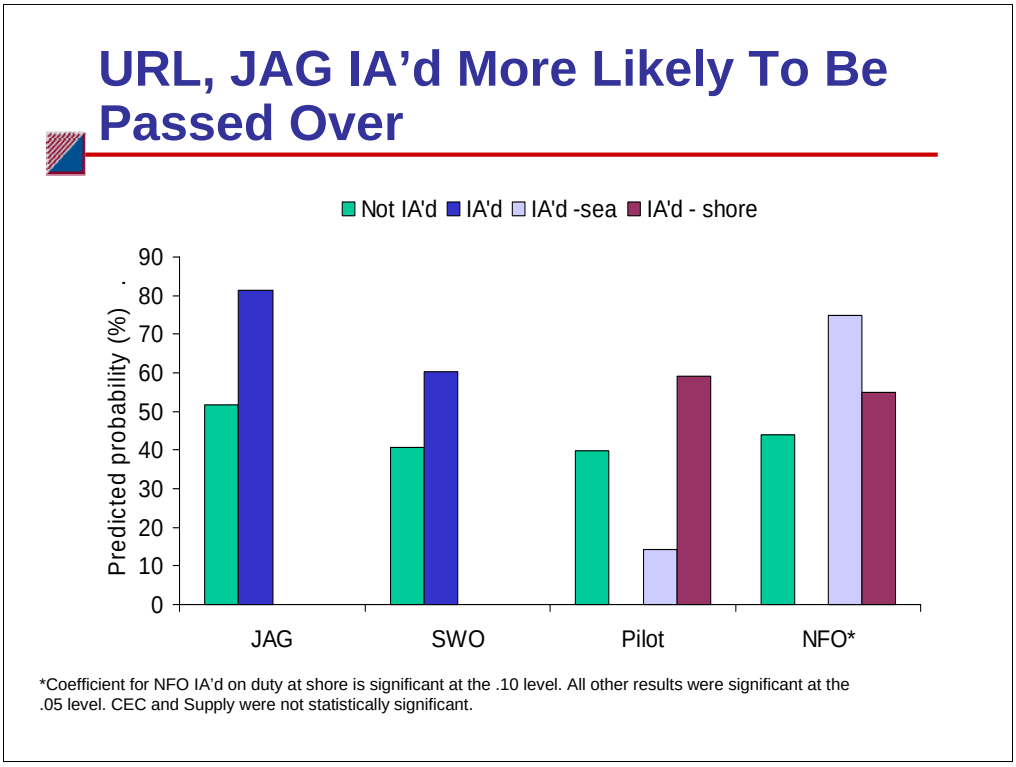


Our combined sample includes 58 officers on sea duty when deployed, 323 on shore duty, and over 11,000 in the control group.

When we control for relevant factors, we conclude that officers who were IA'd were more likely to be passed over for promotion (the results are significant at the .05 level). Officers who were on sea duty when they were IA'd were the most likely—almost 30 percent more likely than officers who were not IA'd. Those on shore duty when IA'd were 18 percent more likely to be passed over.

Similar to the results for the enlisted ranks, we cannot explain why IA'd officers are more likely to be passed over for promotion. There may be additional quality measures that we are not measuring that differentiate officers who were IA'd from their peers, even when we control for whether the officer was passed over for promotion in his or her current rank, or passed over at a lower paygrade. Given the significant differences in these predicted outcomes, however, we suggest that this warrants further investigation.

We turn next to individual analyses of the top 6 designators deployed on IA duty through December 2006.



We included the same paygrades and relevant factors for each of these separate estimates as for the combined equation. We substituted one IA dummy for the two that differentiated sea or shore duty for the JAG and SWO equations because there was not a sufficient number of officers IA'd in each of the categories to obtain statistically significant results. When we combine them, the IA variable is significant at the .05 level. It is not significant, however, for the CEC or Supply equations.

Further, while we usually restrict reporting results to only those coefficients that are significant at the .05 level, we report the findings for NFOs on shore duty—even though they are significant at the .10 level—to illustrate the large difference between those on sea and shore duty.

Our combined results indicated that officers on sea duty when IA'd were more likely to be passed over for promotion than those on shore duty, and both were more likely to be passed over than their non-IA'd peers. The results reported on this slide indicate that Pilots are the only exception to these findings; these officers are more likely to be passed over for promotion if they are on shore duty than those on sea duty when IA'd. In fact, Pilots on sea duty when IA'd are actually far less likely to be passed over than their non-IA'd peers. We note, however, that only seven Pilots were on sea duty when IA'd in our sample. Even so, the results are statistically significant. This may explain in part why the estimated continuation rates for IA'd Pilots that we noted previously are so much lower than those of their non-IA'd peers.

IA'd officers may be more likely to be passed over for promotion than their non-IA'd peers because they differed in some quality measure that we are not capturing. In other words, the Navy may be choosing officers for IA duty who are considered to be of the lowest quality, which has implications for IA missions.

Conversely, if quality has not been a selection criterion, IA assignments may be prohibiting officers from completing the career objectives that are currently considered necessary for promotion. If that is the case, IA assignments may be unnecessarily ending the careers of quality officers.

In either case, we recommend that the Navy study this issue in more depth.

Task 2: Summary of Results

	Sea/Shore time	Continuation	Advancement
Enlisted	• IA'd Sailors spend less time in both completed sea and completed shore rotations	• IA'd Sailors continue in the Navy longer than non-IA'd peers	• IA'd Sailors less likely to advance within 12 months • Difference is decreasing
Officers	• No difference	• IA'd officers generally continue in the Navy longer than non-IA'd peers • Exception is Pilots	• IA'd officers are more likely to be passed over for promotion

This slide summarizes our findings for Task 2. Enlisted Sailors who were IA'd experienced shorter sea and shore rotations than their non-IA'd peers. For those on sea duty when IA'd, this may be perceived as a benefit since they roll to shore duty faster than their peers. This may not be the case for those on shore duty when IA'd, however, since their shortened shore tour was also interrupted by IA duty, often in arduous locations, that counts as sea duty. These Sailors are then returned to sea duty faster than their non-IA'd peers.

The data show that Sailors who were IA'd continue in the Navy at higher rates than their non-IA'd peers. We believe, however, that this may not be a meaningful comparison because the IA selection process acts as a screen by weeding out Servicemembers with circumstances (e.g., medical problems, family issues) that may cause them to leave the Navy at higher rates. Given this more careful screening, we would expect higher continuation rates for Sailors IA'd, all else equal, than their non-IA'd peers.

For both mid-career and senior enlisted, we predict that Sailors who were IA'd in an earlier timeframe were less likely to promote than their non-IA'd peers. Over time, however, this differential has decreased. These results indicate that, early on, IA'd Sailors (senior enlisted more so than mid-career ones) were at a disadvantage in terms of promotion but that issues related to their promotion have been or are being addressed.

We found no difference in the length of sea or shore tours of IA'd officers. And, similar to enlisted Sailors, IA'd officers tend to have higher continuation rates. The notable exception is Pilots. Not only do they continue at a lower rate than their non-IA'd peers, but the differential increases significantly as we observe their behavior over longer durations.

Also similar to enlisted Sailors, we found that IA'd officers are more likely than their peers to be passed over for promotion, especially those who were on sea duty when IA'd. The exception is Pilots, who were more likely to be passed over if they were on shore duty when IA'd.

Given that IA'd Servicemembers are more likely to fail to be advanced after an IA assignment, it is somewhat surprising that they also remain in the Navy at higher rates. We suspect, however, that these results are biased by the fact that IA'd Servicemembers are deployed for several months, often as long as a year. Since our largest sample of IA'd Servicemembers includes those with the shortest observation lengths, these results may change as we are able to follow more IA'd Servicemembers for longer periods of time.

Appendix: Locations and Categories

(Location names are listed are they appear in the data)

Location	Category
AFG	CENTCOM (Iraq, Afghanistan, HOA)
AFG - FTBEN	CENTCOM (Iraq, Afghanistan, HOA)
ARL	CONUS
ARLINGTON, VA	CONUS
BAGH	CENTCOM (Iraq, Afghanistan, HOA)
BAH	CENTCOM (Other)
BAH, FFA CENTCOM	CENTCOM (Other)
BAH, FFA DJIB	CENTCOM (Iraq, Afghanistan, HOA)
BAH, FFA IRAQ	CENTCOM (Iraq, Afghanistan, HOA)
BAH, FFA UAE	CENTCOM (Other)
BAH, FFA YEMEN	CENTCOM (Other)
BOS	OCONUS
COL	OCONUS
CUBA	OCONUS
DC	CONUS
DJIB	CENTCOM (Iraq, Afghanistan, HOA)
DJIBOUTI	CENTCOM (Iraq, Afghanistan, HOA)
ECRC LITTLE CREEK	CONUS
ERIT	CENTCOM (Iraq, Afghanistan, HOA)
FTAP	CONUS
FTBEL	CONUS
GEORGIA	OCONUS
GER	OCONUS
GTMO	OCONUS
HONDURAS	OCONUS
HQS CFLCC CAMP ARIFJAN KUWAIT	CENTCOM (Other)
IRAQ	CENTCOM (Iraq, Afghanistan, HOA)
IRAQ COMUSNAVCENFOR DET IRAQ	CENTCOM (Iraq, Afghanistan, HOA)
KENYA	CENTCOM (Iraq, Afghanistan, HOA)
KOSO	OCONUS
KUW	CENTCOM (Other)
LIB	OCONUS
MD	CONUS
NAVY EXPEDITIONARY COMBAT CMD	CONUS
NORVA	CONUS
OMAN	CENTCOM (Other)
PAK	CENTCOM (Other)
PEND	CONUS
QATAR	CENTCOM (Other)
QATAR AND IRAQ	CENTCOM (Other)
SLEONE	OCONUS
SOUTH AMERICA	OCONUS
TAMP	CONUS
TUZLA	OCONUS
UAE	CENTCOM (Other)
YEMEN	CENTCOM (Iraq, Afghanistan, HOA)

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CNA