POSSIBLE EFFECTS OF DEPLOYMENT

Anecdotally, the effects of deployment can be hypothesized to be both desirable and undesirable; they can also be construed to help or hinder careers. For example, we have heard secondhand accounts of officers being reassigned to a deploying unit in place of a necessary career-advancing tour. As a result, these officers may be unable to get a requisite "ticket punched" (that is, get a required type of job to prepare for advancement) and then may subsequently be passed over for promotion. If such occurrences are common, then deployments will clearly interfere with retention, both directly and indirectly through decreases in officer corps morale. Conversely, we have also heard some officers say that the right type of successful deployment can enhance an individual's chances for promotion, as it distinguishes that individual from his or her contemporaries in a relevant manner.

It has also been related to us that many servicemembers find deployment enjoyable because it allows them to exercise their primary military skills and deployment can result in additional financial compensation.\(^1\) Furthermore, deployments often take the service-

\(^1\)Personnel separated from their families for more than 30 days receive a Family Separation Allowance (FSA). It is paid to military personnel stationed abroad on unaccompanied tours, afloat, or deployed in military operations. There are two types of FSAs, and the amount of compensation changes over time. Personnel who deploy to areas deemed "hostile" can additionally receive Hostile Fire Pay (HFP). (HFP is now called Imminent Danger Pay. Because our data cover the earlier period when it was called
member out of the day-to-day peacetime routine, which tends to involve inspections and other more-mundane aspects of military life, and involves them in the operational aspects of their career. Without exception, all military officers we have talked to enjoy this aspect of deploying. On the other hand, deployments bring separation from family and other hardships, and the determination of whether the positives outweigh these negatives is very much an individual decision.

The type and quantity of deployment, as well as each individual’s taste and expectations for deployment, have a direct impact on whether or not one enjoys the deployment experience and, if not, whether the negative experience is enough to cause the individual to leave the military. For example, participation in the Gulf War is generally cited by many servicemembers as a positive experience that outweighed their personal sacrifice to home and family life. Frequent peacekeeping missions may not carry the same operational importance and warfighting immediacy, and thus may not balance out the negative aspects of deployment as well.

Taste and expectation also play a large role in satisfaction with deployments. For example, over the years, we have found that members of forces with operational missions that require frequent deployments tend to be very satisfied with their experiences. However, it is not clear whether this satisfaction results because these individuals self-select into such careers or whether the experiences of operational deployments are positive, or some combination of the two.

In summary, the effect of deployment on an officer’s decision to stay in the military is not obvious and is probably very complex. In this work, because of the limitations in our data and in retrospective studies, we cannot explore the causal relationship between deployment and retention.2 We do, however, evaluate whether there is an

---

2Ideally, to evaluate the question of the causality between perstempo and retention, deployments would have to be randomly assigned to officers. However, as we have previously discussed, officers can influence their assignments, and thus their likelihood of deployment, so assuming that deployments are randomly assigned to officers is not valid. Matching officers into “closely similar” cohorts, based on tastes for the
association between deployment and officer retention. This is an important distinction. A determination of association simply means we find that, for example, as one factor increases, then so does the other. This does not, however, necessarily imply that the first factor causes the second.

OUR MEASURES OF DEPLOYMENT

The measures of deployment we use are the same as those originally created and used by Hosek and Totten (1998). They are based on the receipt of special pays military personnel receive when deployments separate them from their families or they are deployed to a hostile area. The two pays are FSA and HFP, respectively.3

We use the Hosek and Totten measures for a number of reasons. First, we are interested in directly comparing our results for officers with those Hosek and Totten found for enlisted personnel. Keeping the deployment measures consistent makes the comparison easier and clearer. Second, alternate measures of deployment are not yet readily available. Hosek and Totten provide a detailed description and justification for these deployment measures. Here we provide only a brief summary.

Episodes of Long or Hostile Deployment

This measure counts the number of deployments in a 36-month period.4 An episode begins when an individual’s record shows evi-

---

3While we previously noted that deployment can result in financial advantages to the servicemember, HFP and FSA (Type II) are not likely to influence an officer to seek deployment. For example, an O-3 with five years of service and dependents would have had a gross monthly salary of approximately $3,700, not including any special pays (Basic Pay: $2,926.80; Basic Allowance for Quarters with dependents: $614.40; Basic Allowance for Subsistence: $149.67. Source: Office of the Secretary of Defense, 1996). In comparison, HFP was $150 per month and FSA (Type II) was $75 per month. Hence, at most, these deployment-related pays represented a 6-percent increase in gross compensation.

4Totten and Hosek used the 24-month period prior to six months before the servicemember’s decision to reenlist or leave.
idence of deployment either via receipt of FSA or HFP, or via a Defense Manpower Data Center (DMDC)–derived deployment indicator\(^5\) for a particular month. The episode continues for as long as the individual’s record shows evidence of deployment. Thus, we start by observing the receipt of FSA, HFP, or a DMDC deployment indicator, and we count as one episode the entire period of time until we observe a month when neither FSA nor HFP was received, and the DMDC deployment indicator is off.

Note that to collect FSA, a deployment must be more than 30 days. Therefore, the FSA portion of the measure misses deployments of less than 30 days. Furthermore, because the perstempo data is aggregated to the monthly level, the use of HFP may also undercount the number of episodes when an individual is involved in many short hostile deployments. This can occur in two ways: (1) if an individual makes two or more deployments in one month, the data will only show the receipt of HFP for that month, which we can only interpret as one deployment; and, (2) if the individual makes two or more short deployments in separate, adjacent months, the two months will be counted as one deployment.

The episode measure (of long or hostile deployment) is used to capture the effect of the number of deployments to which individuals are exposed. The hypothesis is that each deployment represents a separate disruption of the individual’s home and work life, just as each deployment offers a fresh opportunity to employ skills and training in a military activity or operation. The cumulative effect of multiple deployments may have a negative or positive effect on retention.

\(^5\)As discussed in Hosek and Totten (1998), single personnel are not eligible for FSA so that, in the absence of any other measure, deployments for personnel without dependents would be undercounted. DMDC has derived another deployment measure based at the unit level. This measure uses information from unit personnel with dependents to decide if the unit was deployed. If so, then all personnel in the unit are given a deployed indicator. In essence, this measure uses FSA plus HFP for personnel with dependents to impute deployment for those without dependents.
Months of Long or Hostile Deployment

In contrast to episodes, this measure captures the effect of the duration of deployment. As with episodes, deployment in a particular month is determined by the receipt of HFP or FSA, or by the DMDC deployment indicator. However, this measure simply adds the total number of months an individual was deployed in a three-year period. As such, this measure captures the effect of length of deployment with the idea that the cumulative amount of time individuals are deployed might have a positive, negative, or perhaps reversing (e.g., quadratic) relationship with retention.

WHAT THESE “DEPLOYMENT” MEASURES REPRESENT

Our measures capture only particular types of “deployment.” Because of the way they were constructed from pay records, these deployments are either long periods away from home and/or excursions into hostile regions. Thus, in addition to capturing long actual deployments (more than 30 days), they also capture long unaccompanied tours of duty in which an individual received FSA. Hence, when we use the term “deployment” in this work, we are referring to either periods away from home in which the servicemember (or a sizable fraction of the servicemember’s unit) drew FSA, or a period in which the servicemember drew HFP.

Such a measure of deployment is relevant and important to study. For example, while unaccompanied tours are not “deployments” in the traditional sense, such long periods away from home and family can be hard on servicemembers. What this measure represents are those excursions that are more likely to

• Impose a large burden on the servicemember and his or her family because of their length of time away from home and/or exposure to danger,

• Represent, in the case of hostile deployments, deployments that are militarily important and likely to involve the servicemember in his or her primary military job, and/or

• Be predictable, in the case of the nonhostile deployments, when compared with other deployments of shorter duration (less than 30 days).
These last two points may be important distinctions because non-hostile deployments of shorter duration are not captured in these data. We hypothesize that these deployments are, generally, of a less predictable nature and/or more oriented toward routine activities. If so, they are of a fundamentally different nature than the deployments we examine here and, given the necessary data, are worthy of a separate analysis as they may have an entirely different effect on servicemembers and their retention decisions.

GENERAL TRENDS DURING THE PERIOD OF INTEREST

We divide the 1990s into two distinct periods, the “early 1990s” (1995 and pre-1995) and the “late 1990s” (post-1995). The early 1990s correspond to a period of contraction in the U.S. military, characterized by a significant downsizing of the force and a very public and contentious process of closing military bases and facilities that culminated in three rounds of Base Realignment and Closures (Figure 2.1). In contrast, the late 1990s was a period of relative stability with most of the downsizing completed, or least determined and, from that point on, reasonably predictable.
Deployment trends were something of the opposite, with an increasing fraction of each service’s personnel deployed as the decade progressed (Figures 2.2–2.5), particularly as compared with the late 1980s. Of course, each service experienced a significant spike in deployments in 1991, corresponding to the Gulf War, but a clear increasing trend in the general pace of deployments continued thereafter.

Figures 2.2–2.5 show the pace of deployments for the Army, Navy, Marine Corps, and Air Force quarterly from December 1987 to December 1992 and monthly thereafter through March 1998. The
vertical axis is the percentage of the service’s officer corps deployed during that period (month or quarter).

The Army (Figure 2.1) and the Air Force (Figure 2.4) show the most significant increases in deployment rates when compared with their pre–Gulf War deployment rates. For example, deployments to Bosnia in late 1994 and 1995 are clearly visible in the figures. The Navy and Marine Corps also show increases, though more modest. On the other hand, their pre–Gulf War deployment rates were already significantly higher than the other two services.

The figures also appear to show the deployment rates of all the services roughly stabilizing sometime in post-1995. That is, after 1995,
for the Army and Air Force, the rate of deployment looks relatively constant, generally above the early 1990s deployment rates, and at a pace significantly higher than that of the late 1980s. The Marine Corps actually seems to show a slight decrease in the late 1990s, while the Navy deployment rate is essentially unchanged (with the exception of the spike for the Gulf War).

Connecting these trends to officer retention, at least in terms of comparing one trend with the other, is slightly more difficult. One reason is that officer retention in the early 1990s was artificially high because of the stop-loss instituted during the Gulf War. As shown in Figure 2.6, none of the services experienced any meaningful loss of
personnel during the Gulf War period as a result of stop-loss. After that, however, retention decreased during the early 1990s—from its artificial high in the Gulf War—again to stabilize for each service in the mid-1990s.

The percentages in Figure 2.6 are for the fraction of O-3s who were still on active duty one year after the expiration of their initial service obligation. The interservice trends shown in Figure 2.6 are well known. The Marine Corps tends to have the highest retention rate, followed by the Air Force. The Army and Navy rates are lower, with the Army showing better retention than the Navy in the early 1990s and the reverse in the late 1990s.

Figure 2.5—Air Force Officer Deployment Rates, December 1987–March 1998
Figure 2.6—Trends in the Percentage of O-3s Retained One Year After Expiration of Minimum Service Obligation