# Patterns of Reserve Officer Attrition Since September 11, 2001

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#### Patterns of Reserve Officer Attrition Since September 11, 2001

31 October 2005

Michelle Dolfini-Reed
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CNA has been providing the Deputy Assistant Secretary of Defense for Reserve Affairs (Manpower and Personnel) with empirical information on patterns of losses in the Reserves since September 11, 2001. To date, we have concentrated on examining patterns of losses among the enlisted members of the Selected Reserves (SelRes). In this annotated briefing, we examine the patterns of losses among commissioned officers and contrast them with our findings for the enlisted SelRes to date.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Michelle A. Dolfini-Reed et al., *Determining Patterns of Reserve Attrition Since September 11, 2001*, June 2005 (CNA Annotated Briefing D0011483.A2/Final). Throughout this document, we contrast our findings on SelRes officer loss rates with our findings in this paper.

# Findings: SelRes officer loss rates . . .

- Are higher than FY 2000 comparison rates
- Are higher for those who were activated but not deployed compared with those who deployed
- Are lowest among the never activated, in contrast to the enlisted whose loss rates were lowest for those activated and deployed
- Increased by length of activation for the ANG, AFR, USMCR, and USNR
- Had the same relative pattern across the general DoD occupational field categories: at this highest level of aggregation, no single occupation stands out as a strong problem area

This slide shows our major findings regarding loss rates for SelRes officers since September 11<sup>th</sup>. Following the same approach as in our analysis of enlisted SelRes loss rates, we calculate the 6-month loss rates after the end of a SelRes officer's activation. Similar to our findings for the enlisted SelRes, we find that officer loss rates consistently are higher than loss rates in FY 2000, although they have fluctuated over time by activation and deployment status. We also find a pattern similar to the enlisted when we stratify officer loss rates by deployment status: SelRes loss rates are higher for those who were activated but not deployed compared with those who deployed.<sup>2</sup> However, SelRes officer loss rates are the lowest among the never activated, which is in contrast to enlisted SelRes members whose loss rates were the lowest among those activated and deployed.

Finally, loss rates for activated SelRes officers also tend to increase as their length of time on active duty increases. Like enlisted members, we observe this pattern among the Air National Guard (ANG), Air Force Reserve (AFR), United States Marine Corps Reserve (USMCR), and United States Naval Reserve (USNR). These findings suggest a preference among reservists to serve shorter active duty periods in settings outside CONUS (OCONUS).

<sup>&</sup>lt;sup>2</sup> We classify reservists as "deployed" if they are sent to support a contingency outside the continental United States (CONUS); otherwise, we classify members as "activated but not deployed."

#### The Reserve Losses Database



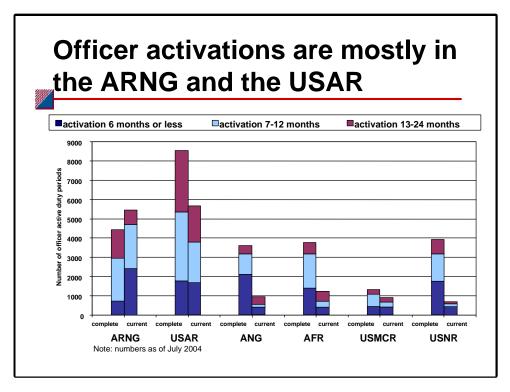
- Use SelRes records from end-of-month Reserve Component Common Personnel Data System (RCCPDS)
  - Focus on all nonactivated SelRes as of Sep '01
  - Also include SelRes accessions since Oct '01
  - Exclude Active Guard/Reserve (AGRs)
- Determine activation/deployment status from DMDC's monthly contingency file
  - Must be 30+ days on active duty
  - Completed active duty periods: must be activated and deactivated by July '04
  - Multiple completed active duty periods: use only last active period
- Match monthly RCCPDS and monthly activation files (Sep '01 – Jan '05)

We created our Reserve Losses Database from the RCCPDS and DMDC's contingency file. The RCCPDS provides a single electronic source of personnel data for all Reserve components. We use the RCCPDS monthly snapshots from October 1999 through January 2005. From these files, we define our population of interest for this analysis as all SelRes commissioned officers who were not activated as of September 2001 or who joined the SelRes since October 2001. We exclude those SelRes officers who were on Active Guard/Reserve (AGR) status.<sup>3</sup>

Next, we classify all SelRes officers as either "never activated" or "activated" over the entire time period. We use DMDC's contingency file to determine each officer's activation status. The contingency file provides a single source of information on all Reserve component members who have been activated more than 30 days in support of a named contingency, such as OEF or OIF, since September 2001 and indicates whether they deployed OCONUS. SelRes members who are activated are under stoploss orders and cannot leave the SelRes until they are deactivated. We further classify activated SelRes officers (a) as a "completed activation" if deactivated by July 2004 or (b) as "currently activated" if still on active duty as of July 2004.

We also are interested in knowing whether there are differences in SelRes loss rates by deployment status. Therefore, we categorize activated SelRes officers as either "activated and deployed" or "activated and not deployed." Finally, if an officer has completed more than one active duty period from October 2001 through July 2004, we use only the last active duty period in calculating the loss rate.

<sup>&</sup>lt;sup>3</sup> AGRs are National Guard or Reserve SelRes who are ordered to active duty or full-time National Guard duty to organize, administer, recruit, instruct, or train the Reserves.



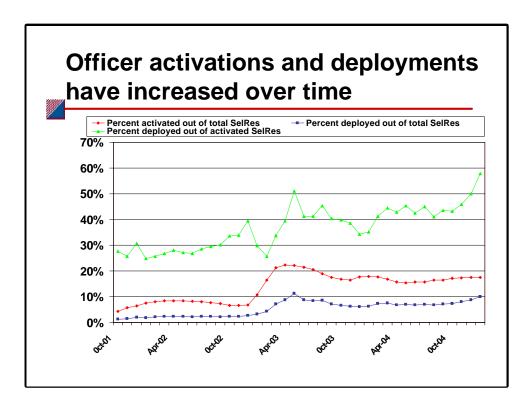
As of July 2004, many officer activations had been completed and more were still in process.<sup>4</sup> There were almost 26,000 officers with completed activations and more than 15,000 still deployed. Among all activated SelRes, officers made up about 13 percent of the members with completed activations and roughly 11 percent of the members still on active duty.<sup>5</sup> The chart above shows the distribution of completed and current officer activations by length of active duty period by Reserve component. We observe distribution patterns for activated officers similar to what we saw in our analysis of enlisted SelRes members. The Army National Guard (ARNG) and the U.S. Army Reserve (USAR) are providing the greatest number of SelRes officers to support ongoing military operations in CONUS and abroad. In terms of the lengths of the activation periods, Reserve officers with completed activations in the ARNG and the USAR tend to serve for 7-12 or 13-24 months. Those with completed activations in the remaining Reserve organizations tend to serve for 6 months or less or 7-12 months.

Among those Reserve officers with a completed activation, slightly under one-half deployed OCONUS (see appendix A). In contrast, for enlisted members with a completed activation, slightly over one-half deployed. Compared with other Reserve components, the ANG, USMCR, ARNG, and AFR deployed the greatest proportion of their activated reservist officers, over 50 percent, while the USAR deployed the greatest absolute number. This pattern was slightly different among the enlisted population: the USAR, ANG, and USMCR deployed the greatest proportion of their activated reservists, while the ARNG deployed the greatest absolute number.

<sup>&</sup>lt;sup>4</sup> We do not report information on the Coast Guard Reserve due to its small size and data integrity issues.

<sup>&</sup>lt;sup>5</sup> As reported in our previous report on enlisted members, almost 173,000 members of the enlisted SelRes had completed at least one active duty period; nearly another 116,000 were still on active duty.

Among ongoing activations, the overall proportion of officers deployed in support of a contingency increased to over one-half in July 2004 (see appendix A). Roughly three-fourths of all activated USMCR, ANG, and AFR officers were deployed. These proportions are 10-20 percent higher than what we observed for each component's enlisted population for this same period. For the ARNG, USAR, and USNR, the proportion of officers deployed was around 50 percent. Because these are ongoing activations, however, the deployment status of members may change from not deployed to deployed as the active duty period continues over time.



In this slide, we show the history of the relative percentage of SelRes officers activated and deployed each month since September 11<sup>th</sup>. The red line indicates the percentage activated each month since October 2001 for all SelRes officers. The blue line indicates the percentage of total SelRes officers deployed in support of OIF or OEF in the given month. And the green line shows those deployed overseas as a percentage of those activated.

We observe patterns for the officers that are similar to those in our previous work on enlisted SelRes members. Each data series displays two distinct patterns before and after the beginning of OIF in the spring of 2003. The overall percentage levels of those activated and those deployed tend to be more consistent leading up to OIF, they increase rather dramatically around April 2003, and then establish a new level of consistency. For example, from October 2001 through December 2002, the overall percentage of SelRes officers who were activated hovered between 4 and 8 percent. In January 2003, as U.S. forces began preparing for OIF, this percentage began a 3-month increase, reaching over 20 percent by March. Since the fall of 2003, the percentage of SelRes officers activated in a given month has remained between 15 and 18 percent. In contrast, the percentage of those activated who deployed has increased steadily over time but has experienced more relative fluctuations over the course of the OIF contingency.

For those who are interested, we also provide the officer activation and deployment history percentages for each Reserve organization in appendix B.

#### **Calculating loss rates**

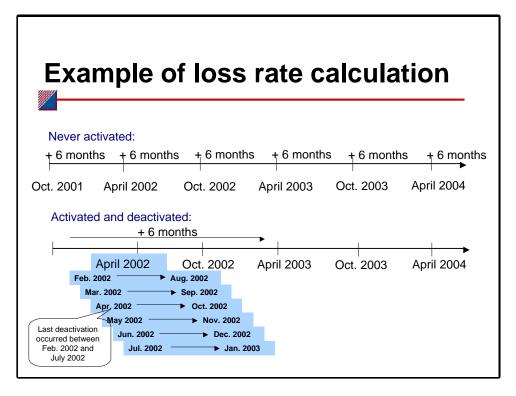


- For each month, identify reservists at end of the month and look forward "x" months to see if still in SelRes
- Compute 6-month loss rates as weighted average across all months (Oct '01 – July '04)
- Note: 6-month updates to data will result in changes to all loss rates because
  - SelRes members are changing status from month to month
  - DMDC continues to improve the integrity of the contingency file

We calculate a 6-month loss rate for SelRes officers who have recently been deactivated or never activated. SelRes members who are activated are under stop-loss orders and cannot leave the SelRes until they are deactivated. By definition, their loss rate is 0. We do not include SelRes officers who are activated during an observed time period in the loss rate calculation for that period because they are not eligible to leave. By excluding those officers not eligible to leave from the calculation, we compute a higher loss rate than we would obtain if we included them in the denominator. One way to view our loss rate is as an upper bound rate for all SelRes officers.

For each month, we identify reservists in the SelRes at the end of the month and then look forward 6 months to see if they are still in the SelRes. We compute an overall 6-month loss rate that is a weighted average across the entire observation period (from October 2001 through July 2004). We also compute loss rates at various points in time so we can assess how loss rates vary over the entire observation period.

In practical terms, the dynamic nature of the Reserve mobilization means that each month Reserves potentially will be changing their status—for example, from never activated to activated or from recently deactivated to activated. We also know that DMDC continues to refine the contingency file *back through time* in addition to adding new information with each passing day. Tracking Reserve losses becomes an ever-moving result in need of a multivariate model that appropriately takes into account the dynamic nature of the mobilization, the time factor, and other important demographic variables. We discuss the implications of these issues in more detail in our earlier paper on enlisted losses.



As shown above, we look at six point-in-time snapshots for those SelRes officers who are never activated and five time windows for those who are activated and deactivated. Remember, for the duration of the period from October 2001 through January 2005, we split SelRes officer into two groups—the never activated and those with completed activations. Once a person is classified in one group, the classification does not change.

For the never-activated loss rate calculation, we calculate losses 6 months after each of the following six points in time: October 2001, April 2002, October 2002, April 2003, October 2003, and April 2004. The denominator is equal to the number of SelRes officers who have never been activated and are in the SelRes at the end of each point in time. Thus, we include in the denominator SelRes officers who stay for the next point-in-time loss rate.

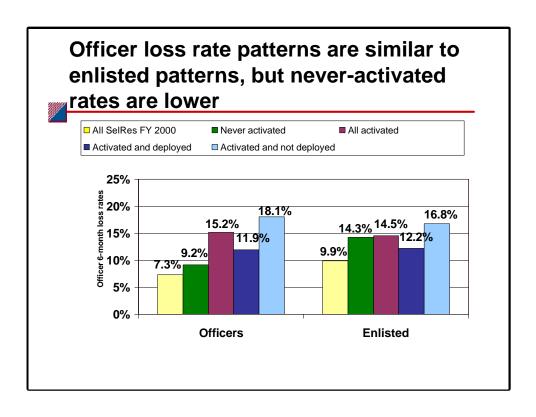
We include SelRes officers with completed activations in only one point-in-time loss rate calculation, which depends on the time window in which the member's deactivated month falls. An example will help to clarify. As shown above, the April 2002 point-in-time 6-month loss rate includes in its denominator all SelRes members whose activation ended in February 2002 through July 2002. We then look 6 months out from the respective deactivation month to see if the SelRes member is still in the SelRes. In turn, the denominator for the October 2002 loss rate calculation includes all SelRes officers whose deactivated date fell between August 2002 and January 2003, and so on. Consequently, the last point-in-time calculation includes all SelRes officers whose deactivated date fell between February 2004 and July 2004.

#### Officer loss rate patterns

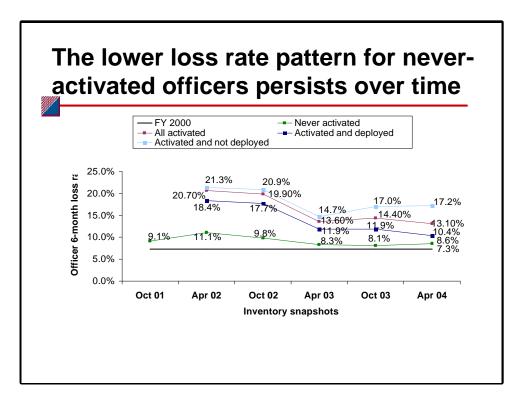


- Activated vs. never activated
- By deployment status
- By length of active duty period
- Multiple activations
- Paygrade
- By type of occupation

We examine loss rate patterns by activation status, deployment status, length of active duty period, multiple activations, paygrade, and occupational field. One factor that we expect would affect loss rates is whether the person volunteered or was involuntarily mobilized. Unfortunately, the data do not provide information on the nature of the activation. In addition, key informants from each Service noted in interviews with us that, in order to lessen potential difficulties that a member might experience with his or her employer, the Services usully write an involuntary activation order even if the SelRes member volunteers.



In this graph, we present loss rates for four different groups for officer and enlisted SelRes members: (1) the never activated—shown in green, (2) all activated—purple, (3) the activated and deployed—dark blue, and (4) the activated and not deployed—light blue. For both officers and enlisted members, 6-month loss rates from October 2001 through July 2004 are higher than loss rates in FY 2000 when the Reserves were not operating under a presidential mobilization order. Loss rates for Reserve officers who have never been activated are the lowest among all four groups, whereas the lowest loss rates for enlisted members are for those who were activated and deployed.

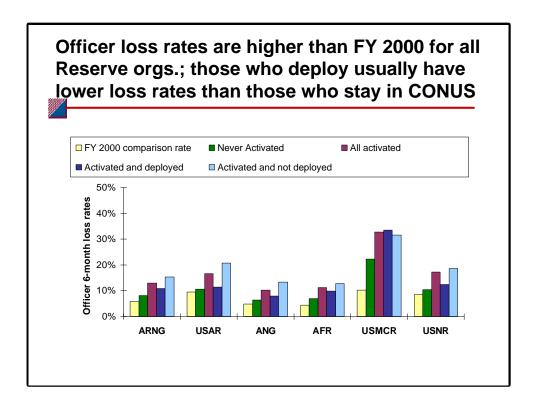


In this slide, we show point-in-time, 6-month loss rates for SelRes officers who were never activated (the green line) and for all activated (the purple line). We also stratify those who were activated by their deployment status. Dark blue shows the point-in-time loss rates for those who were activated and deployed, and light blue marks the loss rate pattern over time for those who were activated and not deployed. For comparison, we also provide the average SelRes officer loss rate for FY 2000.

First, all SelRes officer loss rates since September 11<sup>th</sup> are higher than the FY 2000 comparison rate of 7.3 percent. Officer loss rates across all groups display a relative increase and then moderating decrease, although the degree of moderation varies by activation and deployment status.

The loss rate for the never activated increased slightly from October 2001 through April 2002; since then, it has steadily moderated to rates only 1 to 1.5 percentage points higher than the FY 2000 comparison rate. The slight increase in loss rates may reflect an initial reaction to the President's callup of the Reserves. This reaction appears to diminish over the observation period as anticipatory losses decrease.

Unlike the experience to date for the enlisted SelRes, never-activated officers have much lower loss rates than those who have been activated. In contrast, we previously found that enlisted SelRes loss rates did not differ much when broken out by activation status and that the lowest loss rates occurred among enlisted members who were activated and deployed. Like the enlisted experience, however, officers have the highest loss rates among those who are activated and not deployed. In addition, loss rate percentages for those who did not deploy have increased over the past two point-in-time observation periods (a pattern similar to our findings for enlisted SelRes members).

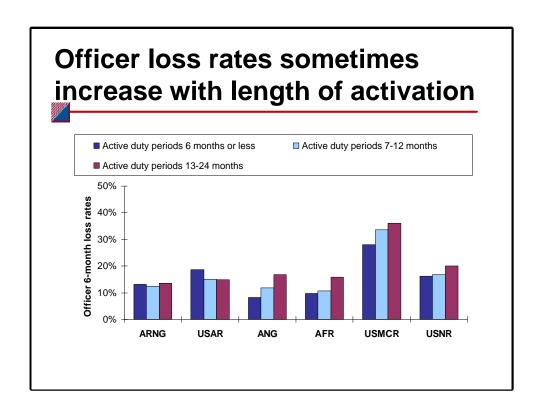


The pattern of higher overall loss rates among officers holds when we examine average loss rates for the recently deactivated by deployment status for each of the six Reserve organizations. Loss rates for the activated SelRes consistently are higher than loss rates in FY 2000. Comparing the purple bar (all activated) with the yellow bar (FY 2000 baseline), the increase in loss rates for five of the six Reserve organizations is more than double the FY 2000 rates:

- ARNG, 124 percent higher
- ANG, 110 percent higher
- AFR, 155 percent higher
- USMCR, 217 percent higher
- USNR, 104 percent higher.

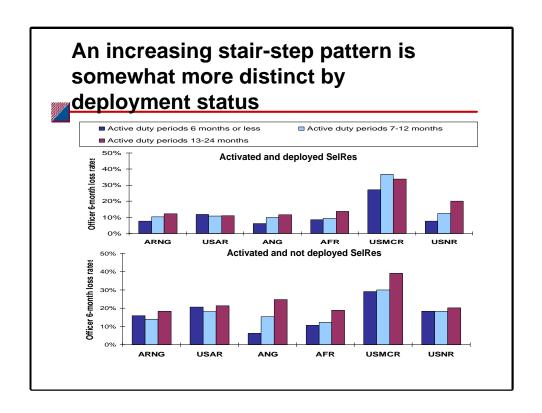
These patterns are similar to those that we found among the enlisted SelRes except that the relative increases in the percentages are even greater for the officers.

In addition, those who deploy (represented by the dark-blue bar) tend to have lower loss rates than those who are activated and remain in CONUS (shown by the light-blue bar). The exception to this pattern is the USMCR whose loss rates are fairly similar regardless of deployment status. Also noteworthy is the small difference between loss rates for USAR officers who were activated and deployed compared with the organization's baseline rate in FY 2000.



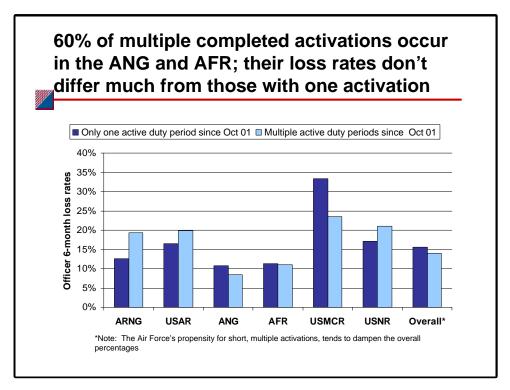
Earlier in our analysis, we saw that officers in the ARNG and the USAR tended to be activated for longer periods of time than their counterparts in the ANG, the AFR, the USMCR, and the USNR. Also, recall that we had observed a similar pattern among enlisted SelRes members. In this slide, we consider whether the length of the active duty period is related to whether an officer stays or leaves.

As was true among the enlisted SelRes, the length of the active duty period appears to be related but in different ways for different Reserve components. In the ARNG, loss rates vary little (1 percent or less) by activation length; among the enlisted, ARNG loss rates actually decreased as activation length increased. In the USAR, officer loss rates decrease as the length of the activation increases, as was the case among the enlisted ranks. Finally, once again in synch with previously identified enlisted patterns, loss rates increase with the length of the active duty period for Reserve officers in the ANG, the AFR, the USMCR, and the USNR.



In this slide, we show loss rates for the recently deactivated by length of active duty period broken out by deployment status. For the most part, the increasing stair-step pattern holds for the ANG, AFR, USMCR, and USNR regardless of deployment status. The relatively flat loss rate pattern for the ARNG becomes an increasing stair-step pattern for those who were activated and deployed. The decreasing pattern for the USAR is much less distinct.

Overall, loss rates are consistently higher for those activated and not deployed. For nondeployers, the increase in loss rate as the active duty period lengthens is particularly distinct for members of the ANG. These patterns suggest that, like enlisted SelRes members, Reserve officers' loss behavior tends to reflect a preference for shorter activation periods that include deploying rather than staying in CONUS.



Here we compare loss rates for officers with multiple completed activations with those for officers with one activation. Among those SelRes officers who have been activated since October 2001, nearly 2,200 have served more than one active duty period as of July 2004.<sup>6</sup> Roughly 37 percent were ANG and 23 percent were AFR.<sup>7</sup> Loss rates for ANG and AFR officers with more than one activation are fairly similar to those with only one. Differences between loss rates for these groups are only 3 to 4 percentage points for the USAR and USNR as well. In contrast, the loss rate for ARNG officers with more than one activation is nearly 7 percent *higher* than for those with only one. Finally, the loss rate for USMCR officers with more than one activation is nearly 10 percent *lower* than for those with only one. These differences are greater than those we observed among enlisted SelRes members falling into these same groupings. However, there is no pattern of consistently higher or lower loss rates across the Reserve organizations for SelRes members (officer or enlisted) who have completed more than one active duty period.

In thinking about the potential implications of these specific findings, several factors are important. First, DoD policy for this Reserve callup limits the number of months that a SelRes member can involuntarily serve to 24 *cumulative* months, even though the law specifies a limit of no more than 24 *consecutive* months.<sup>8</sup> This means that SelRes members who have more than one completed activation were most likely on active duty for shorter periods of time. We know from our analysis so far that loss rates for the recently deactivated tend to be lower for the shorter activation periods.

<sup>&</sup>lt;sup>6</sup> This number is about 10 percent of those with only one activation.

<sup>&</sup>lt;sup>7</sup> Of the remaining officers with more than one activation, 20 percent were USAR, 10 percent ARNG, 5 percent USMCR, and 5 percent USNR.

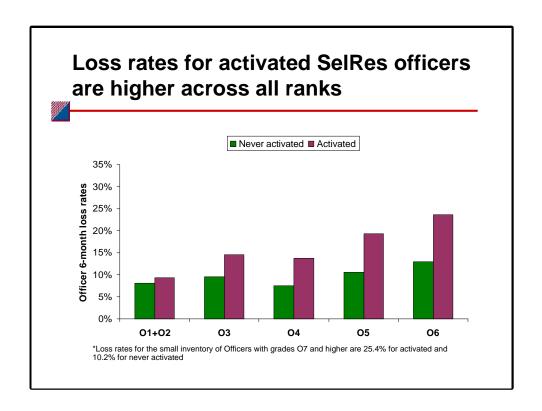
<sup>&</sup>lt;sup>8</sup> 10 USC 1230. Also see Presidential Executive Order 13223.

Another possibility is that SelRes members with multiple completed activations may be disproportionately volunteering for additional duty, a distinction (discussed earlier) that we are not able to discern in the data. SelRes members may be more likely to leave after the completion of their first active duty period if they are disillusioned with the system. A decision to stay in the SelRes after the first completed active duty period may indicate a willingness to serve again, which in turn would dampen loss rates following deactivation from a second or third tour.

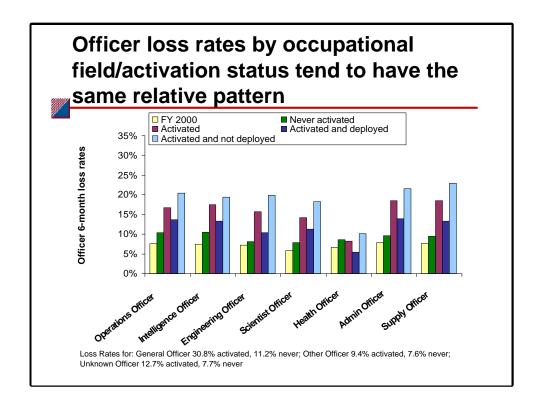
Another way to look at these data is to compare the pattern of differences in loss rates *within* a Reserve organization. So, comparing the loss rates of SelRes members with only 1 activation with those with multiple completed activations, the loss rates for members with multiple activations are as follows:

	Enlisted members	<u>Officers</u>	
ARNG	Higher	Higher	
USAR	Higher	Higher	
ANG	Lower	Lower	
AFR	Lower	Lower	
USMCR	Lower	Lower	
USNR	Higher	Higher	

These patterns may reflect the culture of each Reserve organization and the expectations that each sets for its SelRes members concerning whether and how much they will be used.



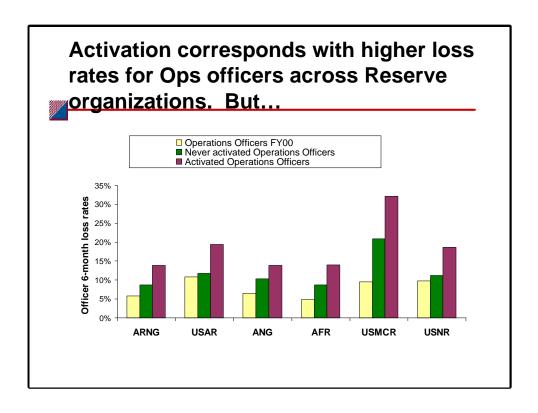
In this slide, we examine SelRes officer loss rates by activation status and by rank. In general, loss rates are higher for those who are activated compared with the never activated. With the exception of the slight inversion of O-3 and O-4, loss rates among the activated increase with paygrade level.



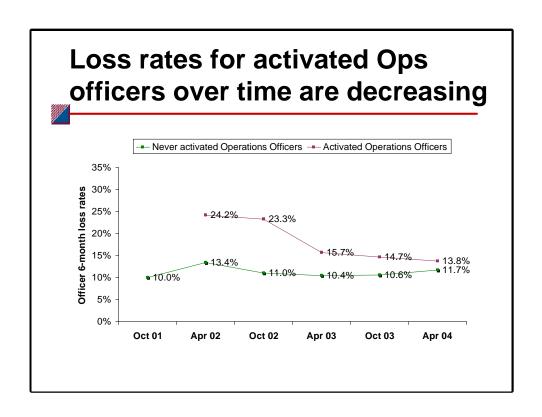
In this slide, we take a look at officer loss rates by occupational field and activation status. In nearly every occupational field except health, officer loss rates since September 11<sup>th</sup> are

- Higher than the FY 2000 comparison rate in each occupation
- The lowest for the never activated
- Highest for those who were activated and not deployed compared with those who deployed.

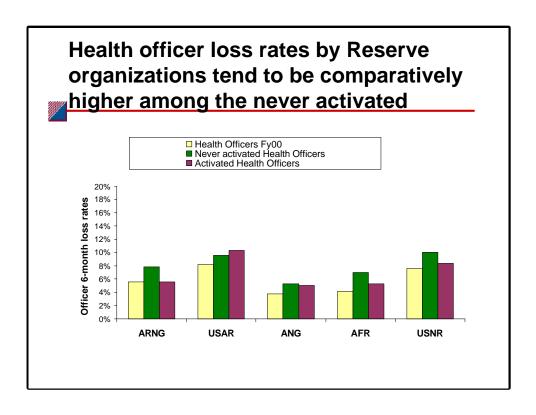
Loss rates for SelRes officers in health occupations are the exception to the pattern. Overall, their loss rates tend to be lowest among all the occupational categories. Loss rates for the never activated and the activated differ by less than three-tenths of a percent, and loss rates for health officers who were activated and deployed are lower than the FY 2000 comparison rates. Operations and health officers represent the two largest occupational fields for SelRes officers, so we thought it would be worthwhile to take a closer look at their loss rate patterns.



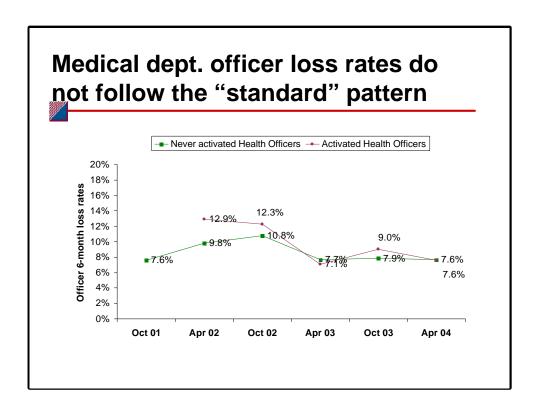
In this slide, we show operations (Ops) officer loss rates stratified by activation status for each Reserve organization. The Ops officer category includes a wide range of occupations, such as aviation and airfield operations, ground arms and missile operations, command and control, operations staff, amphibious operations, search and rescue, law enforcement, and coastal/harbor defense. Activation tends to correspond with much higher loss rates for Ops officers. Loss rates tend to be the highest among activated officers in the USAR, the USMCR, and the USNR.



However, when we look at Ops officer loss rates over time, we find that rates for activated officers have decreased to levels that are only 2 percentage points higher than never-activated loss rates in April 2004.



Health officers include physicians, nurses, dentists, healthcare administrators, and other allied health specialists, such as pharmacists, radiation health officers, and industrial health officers. In contrast to other occupational fields, health officers who have never been activated tend to have higher loss rates than the activated. Loss rates for officers in the USAR are the exception: the never activated have slightly lower loss rates than the activated.



Over time, loss rates for activated health officers were higher than those for the never activated through October 2002. Since then, they have decreased to levels that are nearly the same as the never activated. This is the same declining pattern of loss rates over time that we saw with Ops officers as well. Both suggest that, for the occupational fields of operations and health, in the aggregate, loss rates may be settling to some equilibrium.

#### **Summary of issues**

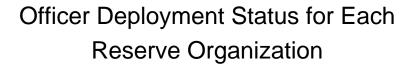


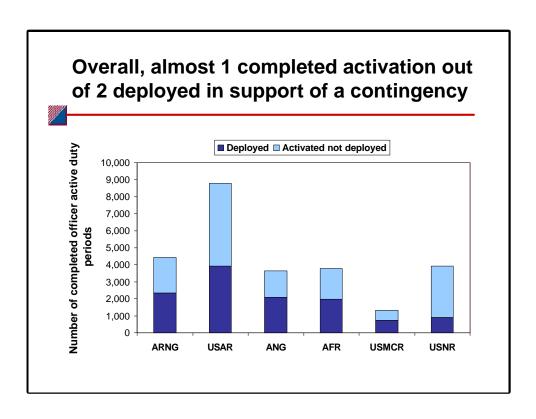
- Major findings:
  - Overall magnitude of increase in loss rates is not so bad but requires continued monitoring
  - Deployment status and length of activation appear to matter to reservists
  - Important to establish a culture of using reservists and managing expectations

The descriptively focused work that we have conducted to date is an important first step to understanding the factors that affect Reserve losses. Our analysis of officer loss rate patterns tends to mirror our findings of enlisted loss rate patterns in our earlier work. While loss rates are higher than they were during FY 2000, the overall magnitude of the increase is not as high as you might expect and the point-in-time loss rates are decreasing for most subgroups that we have examined. This suggests that 4 years into this mobilization Reserve officers may be settling into a pattern of equilibrium with respect to loss behavior. The one potential problem area is the persistently higher loss rates for Reserve officers who have been activated but not deployed, which is a pattern similar to the one that we have observed for enlisted SelRes members as well.

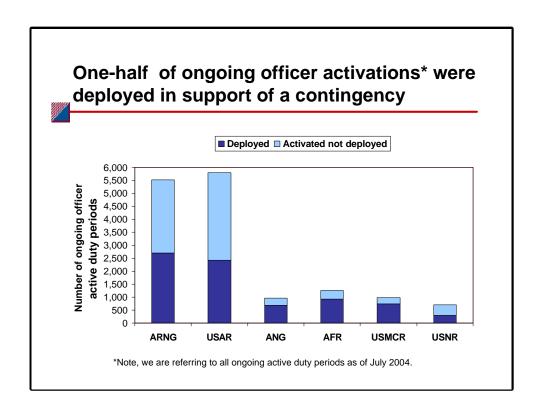
Our research to date on both enlisted and officer loss behavior continues to reinforce a number of patterns that are directly related to Reserve force management. First, if we are going to activate reservists, it is better (from the attrition standpoint) to deploy them. Second, multiple activations are not necessarily bad; however, it is clear that the duration of the active duty period matters. Shorter is preferred, and predictability matters with respect to the frequency of activation and the duration. The loss patterns that we are observing seem to point to the importance of each military service's culture regarding the role of Reservists and how much they are and will be used. Expectations for reservists need to be clear and match the reality of the Pentagon's new map. Assuming that the United States will continue to invest a significant portion of its operating strength in the Reserves, tracking the loss behavior of reservists needs to be part and parcel of normal operating procedures for force managers and not an exercise undertaken once every decade or so.

## **Appendix A**



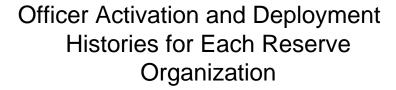


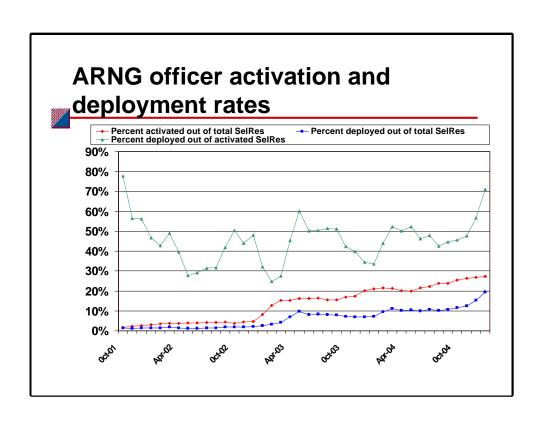
Among those SelRes officers with a completed activation, about one out of two deployed in support of a contingency. Compared with the other Reserve components, the ARNG, ANG, AFR, and USMCR deployed the greatest proportion of their activated reservists, well over 50 percent. The ARNG deployed the greatest absolute number. The USNR and USAR were the only two branches deploying fewer than 50 percent of those officers activated.

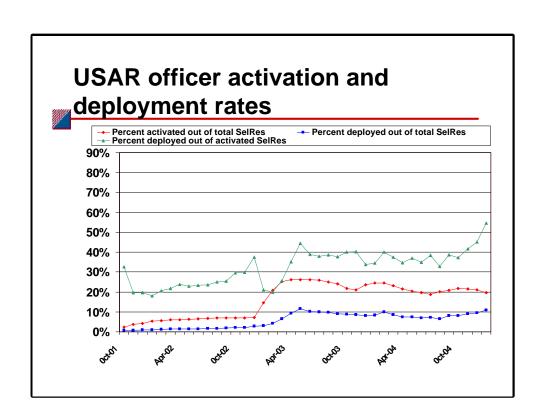


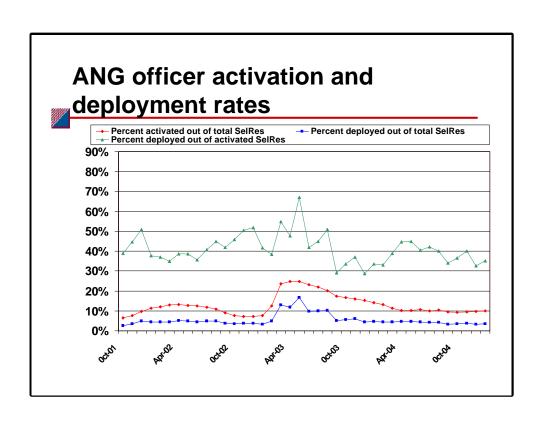
Among ongoing activations, the overall proportion deployed in support of a contingency had increased to more than one-half in July 2004. The ANG, AFR, and USMCR all have more than 70 percent of their currently activated officers deployed.

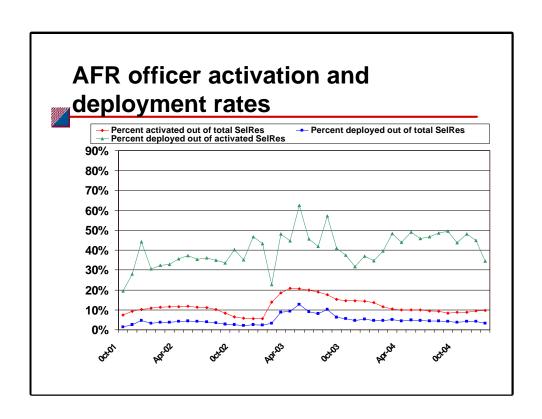
### **Appendix B**

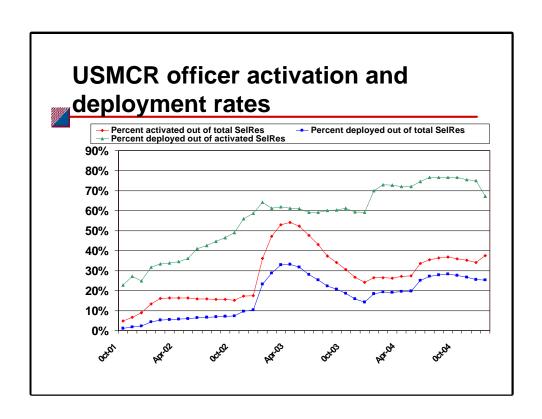


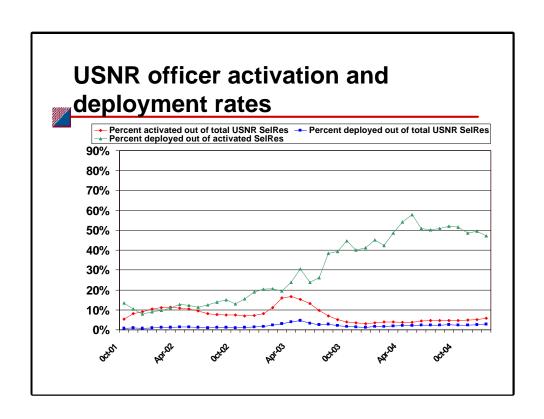








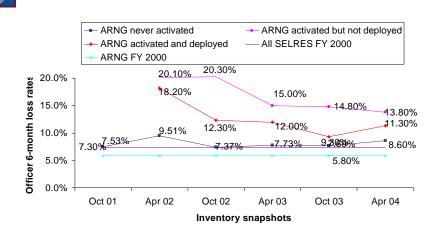


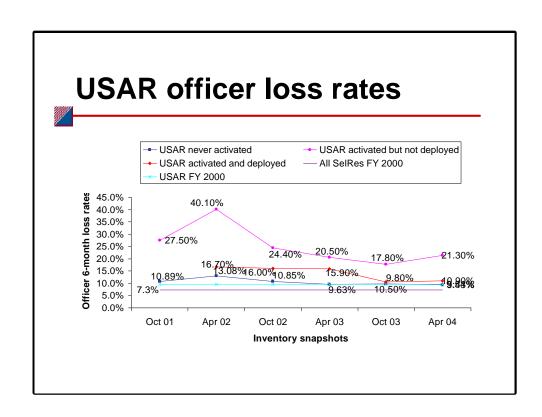


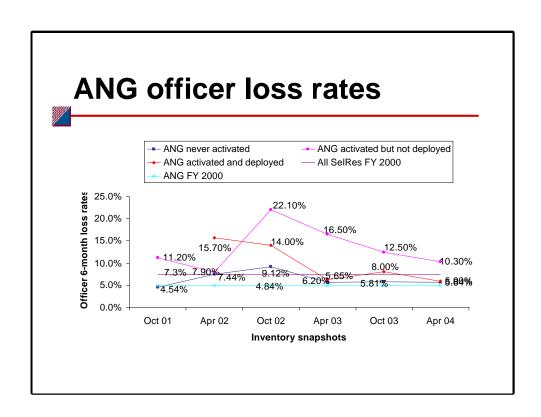
## **Appendix C**



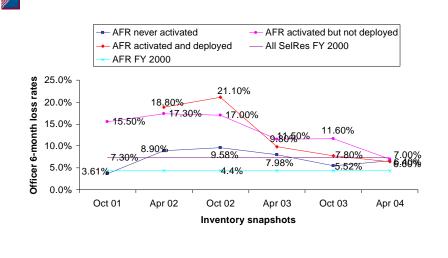
## **ARNG** officer loss rates



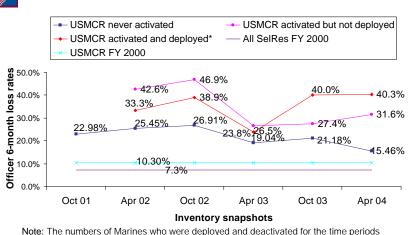




## **AFR officer loss rates**







Note: The numbers of Marines who were deployed and deactivated for the time periods of April and Oct 2002 were very small.

