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TECHNICAL REPORT

Early Results on Activations and the Earnings of Reservists

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Prepared for the Office of the Secretary of Defense

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SUMMARY

INTRODUCTION

In conducting the Global War on Terrorism, the Department of Defense (DoD) has relied heavily on the reserve components. A large fraction of the reserve force has been activated at least once since September 11, 2001, and many of these activations have lasted for more than a year. This more intensive use of the Reserves has been accompanied by concerns that many reservists suffer substantial financial losses as a result of being activated. A number of legislative proposals at the federal and state levels would increase compensation of activated reservists to offset these financial losses.¹

This report describes research using a sample of Army and Air Force reservists activated in 2001 and 2002 for the Global War on Terrorism. For those reservists, we combine information on civilian earnings from Social Security Administration (SSA) data for 2001 with information on military earnings from DoD administrative files to construct an estimate of the effect of activation on the earnings of reservists. Our measure of military earnings includes pays, allowances, and an approximation to the value of the federal tax preference accorded military allowances and military pay received while serving in a combat zone. Specifically, we use SSA data for calendar year 2001 to extrapolate full-year civilian earnings of reservists who served on active duty in 2002 and 2003. Because we only have data on civilian earnings in 2001, we cannot reliably compute total earnings in 2002 and 2003. Instead, we use military pay data for reservists who served on active duty during 2002 and 2003 to extrapolate full-year military earnings for those reservists. For each activated reservist, we then compute the difference between annualized military earnings while serving on active duty in 2002 and 2003 and annualized civilian earnings derived from the 2001 SSA data. We then compute the average difference and the fraction of activated reservists experiencing any earnings

¹ We use the term "activated" throughout this document to refer generically to a state of serving on active duty, whether it be active duty for training or serving on active duty voluntarily or involuntarily as part of a mobilization or other call to active duty.

loss or an earnings loss of at least \$10,000 or 10 percent of earnings when not activated.

ESTIMATED DIFFERENCE IN EARNINGS

Contrary to stories in the popular press and analyses of self-reported earning loss data recorded in DoD surveys, our analyses of administrative data indicate that most (72 percent) reservists experience a significant increase in earnings. The average increase in earnings of activated reservists is over \$850 per month (in 2003 dollars), which represents an increase of 25 percent over earnings when they were not activated; 65 percent of reservists in our sample experience earnings increases of more than 10 percent. However, a sizable fraction of activated reservists (28 percent) experience some loss in earnings and for some (20 percent) of these reservists, the losses represent 10 percent or more of their earnings when not activated. For those with long activations in later years (more than 270 days in 2002 or 2003), but short or no activation(s) in the base year (90 days or less in 2001), average earnings gains are larger (more than \$1,500 per month or 44 percent of earnings when not activated), the fraction experiencing any earnings loss is smaller (17 percent experience any loss), and the fraction with severe earnings losses is also smaller (11 percent experience a loss of 10 percent or more).

Our estimates of earnings losses are smaller for those serving on active duty in 2003 compared to those serving on active duty in 2002. Overall, 32 percent of the reservists in our sample activated in 2002 experienced some earnings loss compared to 23 percent of reservists activated in 2003. We estimate smaller earnings losses in 2003 than in 2002 across a range of activation patterns and measures of earnings gains and losses. The difference in estimated earnings changes in 2003 and 2002 is due primarily to higher military pay in 2003 than in 2002 due to pay increases, increased receipt of special pays, promotions within our sample, and changes in the composition of activated reservists.

Our estimates of earnings changes are also sensitive to the number of days served on active duty. Those reservists serving for longer periods on active duty are less likely to experience earnings losses than those reservists serving for shorter periods on active duty. This difference appears to be because reservists serving for long periods on active duty have higher full-year equivalent military earnings because they are more likely to

receive family separation allowance, hostile fire pay, and the combat zone tax exclusion. In addition, these reservists have lower civilian pay. One reason reservists with long periods of active duty service have lower civilian pay could be that those with lower civilian pay are more likely to volunteer for activation and longer periods of active duty.

Compared to those serving more than 270 days on active duty in a calendar year, those serving 270 days or less on active duty in a calendar year experience smaller average earnings gains and a larger fraction of these reservists experience some earnings loss. Earnings gains are smallest and the prevalence of earnings losses largest among reservists serving 90 days or less on active duty in a calendar year. For that group of reservists, 38 percent experience an earnings loss, and 29 percent experience one of 10 percent or more.

DISCUSSION

The results on earnings and activation reported in this document are early and subject to a number of important caveats. First, these results are based on a pre-existing sample of reservists activated in 2001 and 2002 for the Global War on Terrorism. We are currently working to expand our sample to include all reservists activated following September 11, 2001. Second, our sample excludes reservists serving in the Navy and Marine Corps. Third, the approach taken here compares earnings prior to activation to earnings received when activated. Our analysis does not consider what would have happened to the earnings of reservists had they not been activated. Fourth, our estimates do not consider several sources of compensation received when serving on active duty. These include employer "top-off" and the expected present discounted value of accumulated retirement points.

Finally, these estimates refer to an important, but narrowly defined outcome: earnings. We thus ignore any increase in household costs, any business losses, any effects on spousal earnings, and any non-financial costs (or benefits) attributable to activation and deployment. Thus, standard compensation arguments imply that, inasmuch as the reserve components are experiencing recruiting and retention problems, the conventional incentive case for raising reserve compensation remains valid.

Our estimates imply less prevalent and severe earnings losses among activated reservists than do estimates derived from DoD survey data. The

reason for this difference in estimates is likely related to both sampling and measurement issues. Our sample is composed of Army and Air Force reservists activated in either 2001 or 2002 in support of the Global War on Terrorism. DoD survey estimates are based on a sample of reservists responding to their survey (and the earnings loss questions), which may or may not be representative of all reservists. Our estimates are derived from administrative data on earnings which we believe are well defined, highly accurate, and comprehensive. DoD survey estimates are based on self-reported estimates of civilian and military income and those estimates may be inaccurate. Perhaps most significantly, DoD survey questions do not solicit estimates of the value of the tax advantage accorded some military earnings when serving on active duty, a component of pay that we find to be important.

Prior to September 11, 2001, most reservists reasonably thought that the likelihood of being involuntary activated for a lengthy period of time was low. Thus, even individuals who were at risk of suffering significant earnings losses when activated might nonetheless enlist or reenlist in the Reserves. However, it is likely that DoD's intensive use of the Reserves since September 11, 2001, has caused existing and potential reservists to revise their expectations regarding the likelihood of activation upward. Consequently, all else equal, we expect that fewer individuals with large potential earnings losses will enlist or reenlist in the Reserves in the future, which should result in even smaller aggregate earnings losses than we report here.

There are pros and cons associated with the departure from the Reserves of reservists with large potential earnings losses. On the one hand, perhaps reservists who stand to suffer large losses, like the self-employed or individuals who command large civilian salaries, are not a good match in aggregate for a Reserve force that DoD wishes to use with some frequency. On the other hand, many of these individuals could possess skills that are particularly valued by the Reserves, making their departure problematic for maintaining desired capabilities and readiness in the Reserves. How to compensate individuals with large earnings losses whom DoD wishes to retain is unclear and should be the focus of future research.

Regardless of what policies DoD enacts to address earnings loss in the future, we recommend that DoD consider providing reservists (and potential reservists) with more information about how their military earnings are likely

to change when serving on active duty. Providing this information might help DoD avoid unwittingly recruiting and retaining reservists with the potential for large earnings losses and the attendant bad publicity that occurs because of this. Conversely, providing this information might also help the Reserves retain individuals who are unaware that their military earnings could increase significantly because of the special pays they receive and the tax preference accorded earnings received while serving in a combat zone.

IMPROVING THESE ESTIMATES

The estimates of earnings changes attributable to activation reported in this document are preliminary, but we believe useful for the ongoing policy debate. The project's final report will use better data and more sophisticated analytical methods to generate a richer and more robust characterization of the effects of activation on the earnings of reservists. We expect that some of those data and methodological improvements will increase the estimated prevalence of earnings losses, while other improvements will decrease the estimated prevalence of earnings losses. The net impact of these data and methodological improvements on the estimates reported in this document is unknown.