



INSTITUTE FOR DEFENSE ANALYSES

**Total Force Mix  
the ongoing challenge  
(Conference Presentation)**

David R. Graham  
Nancy M. Huff

June 2018

Approved for public release;  
distribution is unlimited.

IDA Document NS D-9112

Log: H 18-000217

INSTITUTE FOR DEFENSE ANALYSES  
4850 Mark Center Drive  
Alexandria, Virginia 22311-1882



*The Institute for Defense Analyses is a non-profit corporation that operates three federally funded research and development centers to provide objective analyses of national security issues, particularly those requiring scientific and technical expertise, and conduct related research on other national challenges.*

#### About this Publication

This work was conducted by the Institute for Defense Analyses (IDA), under the Central Research Project C6496 (AE-6-6496), "DoD Management Challenges Symposia." The views, opinions, and findings should not be construed as representing the official position of either the Department of Defense or the sponsoring organization.

#### Acknowledgments

Thank you to Stanley A. Horowitz for performing technical review of this document.

#### For More Information:

Nancy M. Huff, Sub-Project Leader  
[nhuff@ida.org](mailto:nhuff@ida.org), (703) 575-6334

David R. Graham, Project Leader  
[dgraham@ida.org](mailto:dgraham@ida.org), (703) 845-2358

ADM John C. Harvey, Jr., USN (Ret), Director, Strategy, Forces and Resources Division  
[jharvey@ida.org](mailto:jharvey@ida.org), (703) 575-4530

#### Copyright Notice

© 2018 Institute for Defense Analyses  
4850 Mark Center Drive, Alexandria, Virginia 22311-1882 • (703) 845-2000

This material may be reproduced by or for the U.S. Government pursuant to the copyright license under the clause at DFARS 252.227-7013 (a)(16) [Jun 2013].

## **Executive Summary**

---

DoD spends most of its budget on a workforce of 3.7 million people, including Active and Reserve Servicemembers, government civilians, and service contractors. DoD has a reasonable policy for choosing between these workforce types to maximize efficiency subject to constraints on military essentiality and inherently governmental activities. The Institute for Defense Analyses (IDA) has done a substantial amount of research examining tradeoffs between alternate manpower types; the bulk of this presentation focuses on the tradeoffs between Active Duty military and government civilian personnel.

For repeated projects across multiple domains, IDA research has demonstrated large potential benefits from increased use of civilian personnel. However, despite a reasonable DoD policy requiring the use of government civilians, bad incentives remain that encourage the overuse of military personnel. Successful approaches to managing workforce mix must address these underlying incentives problems.





# Total Force Mix

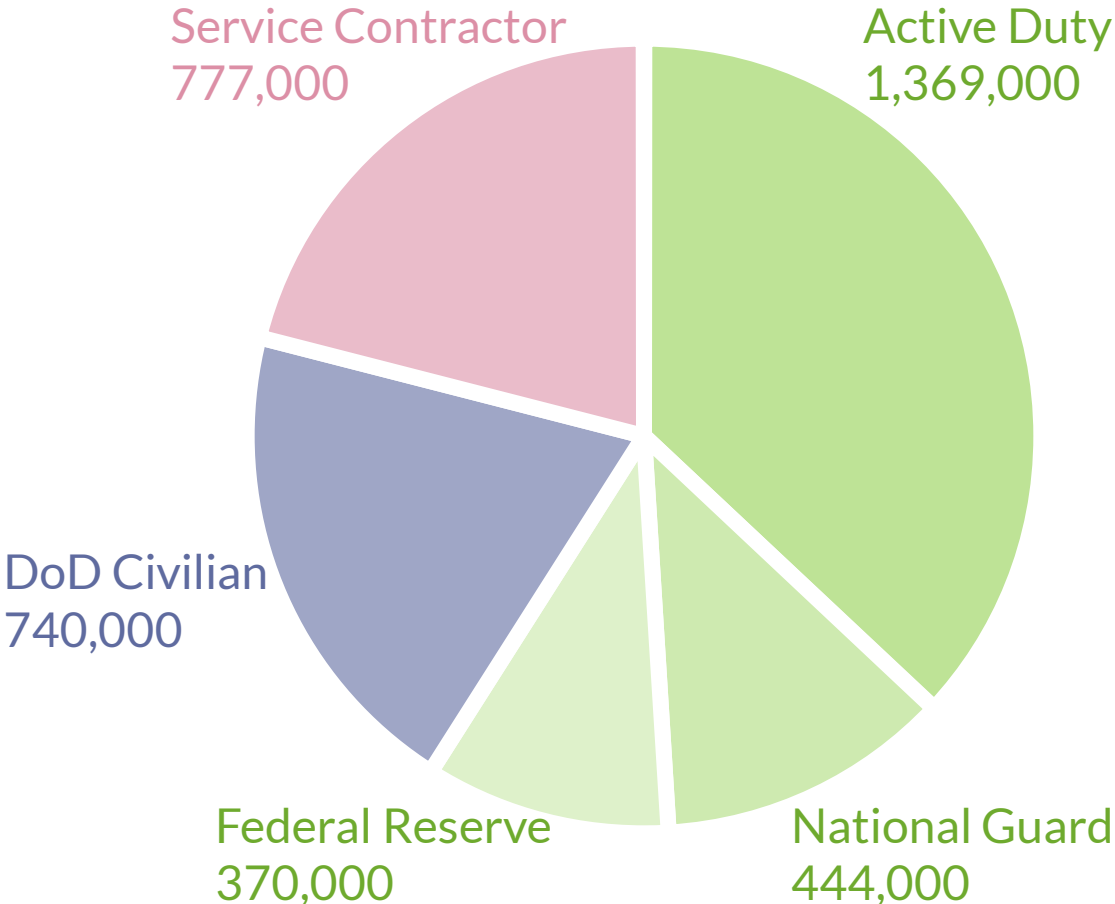
## The ongoing challenge

David R. Graham

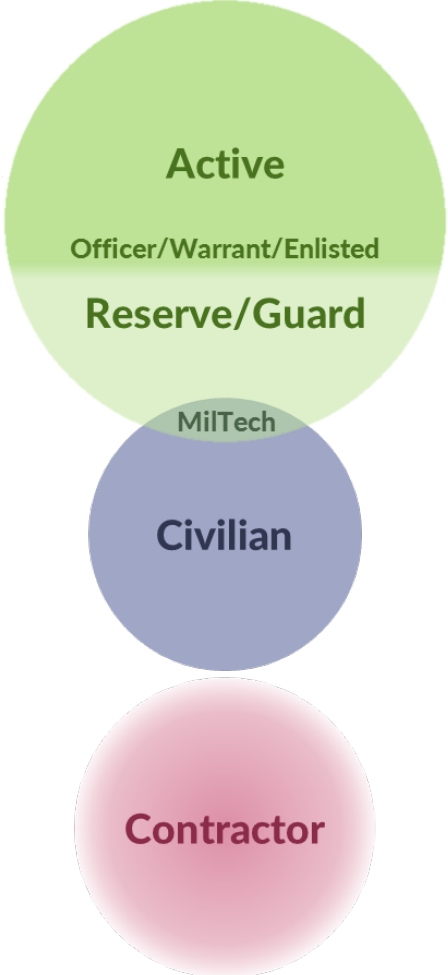
Nancy M. Huff

2018 Western Economic Association International Conference

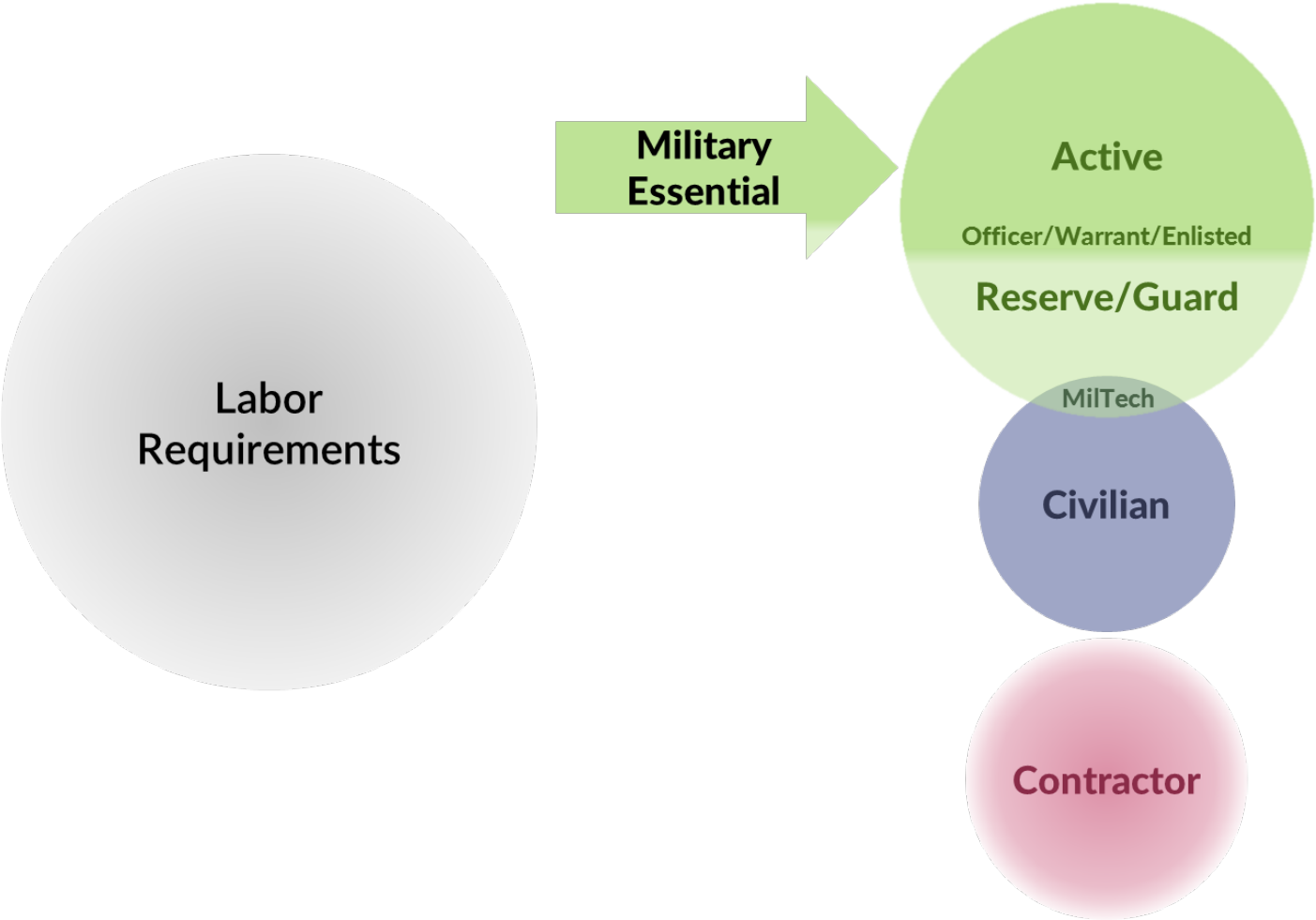
# DoD spends most of its budget on a workforce of 3.7 million people



# DoD has a reasonable policy for choosing between workforce types

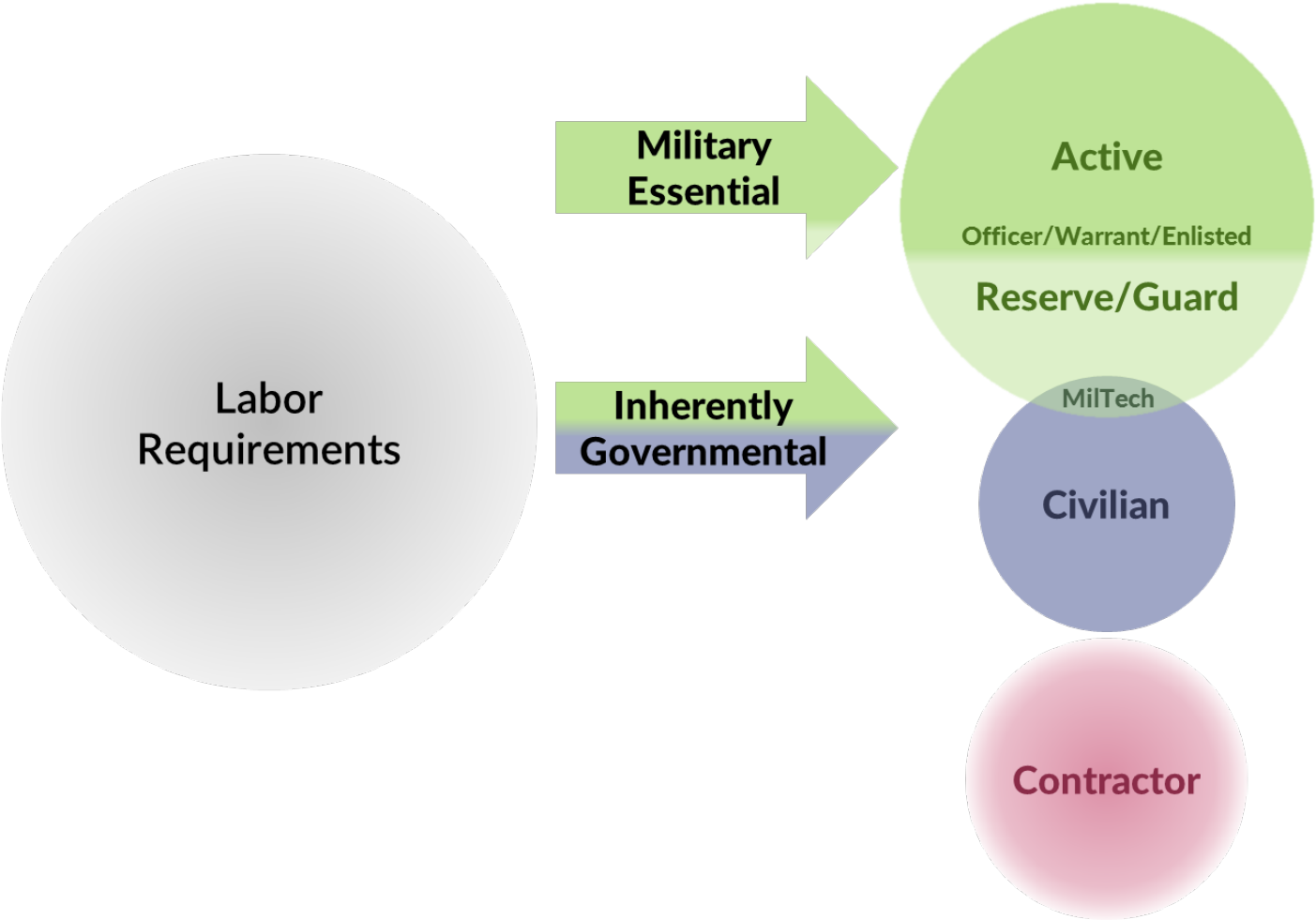


# DoD has a reasonable policy for choosing between workforce types

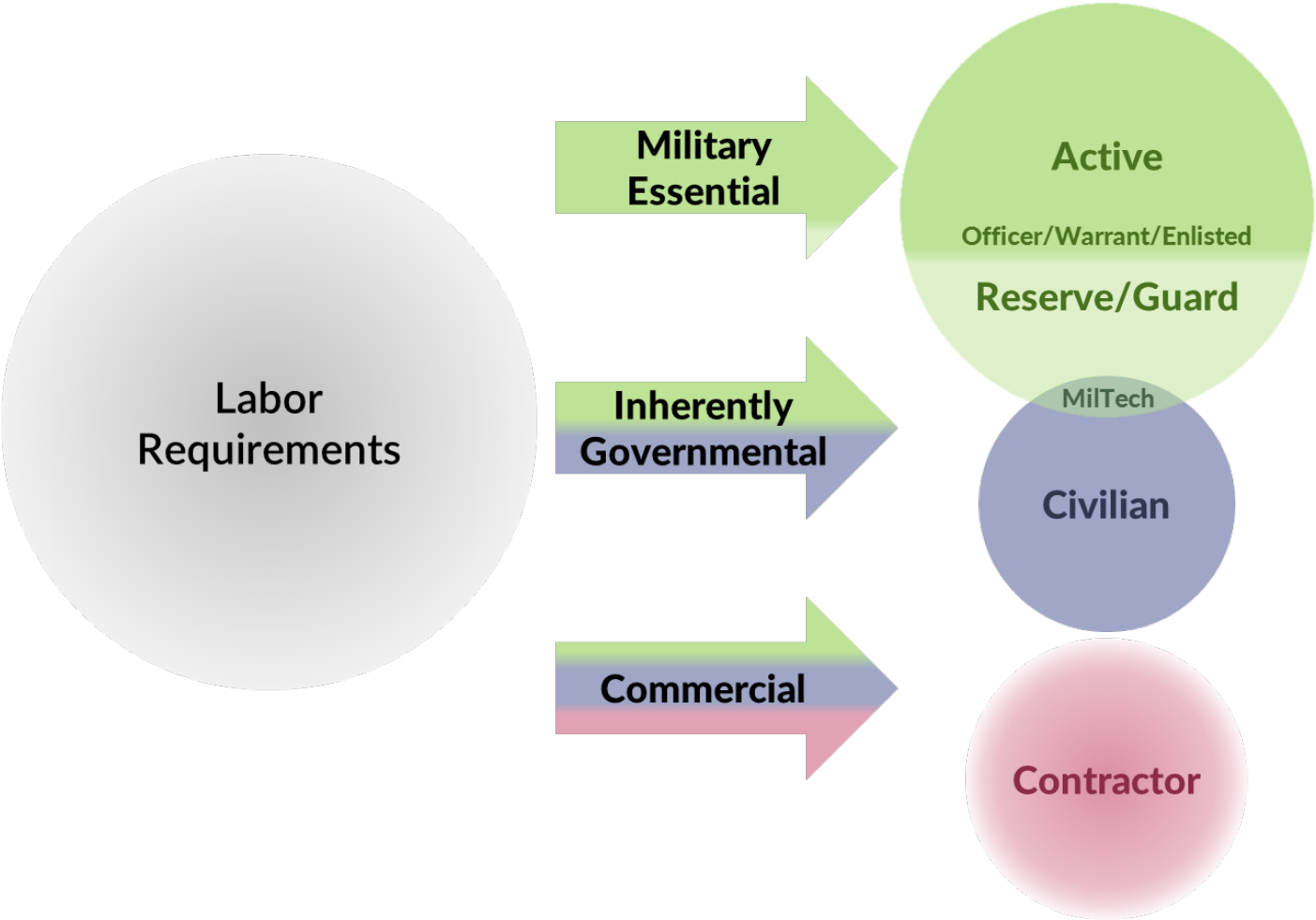




# DoD has a reasonable policy for choosing between workforce types

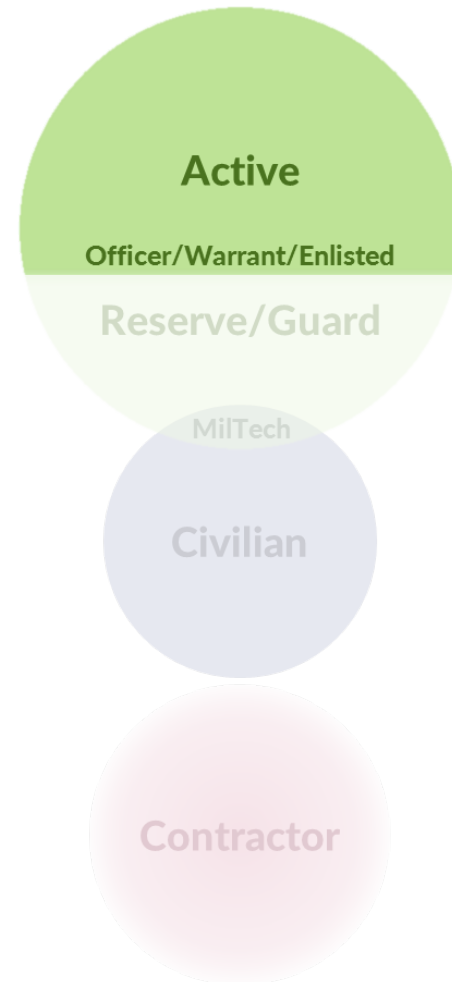


# DoD has a reasonable policy for choosing between workforce types



# We've done many studies examining tradeoffs between alternate manpower types

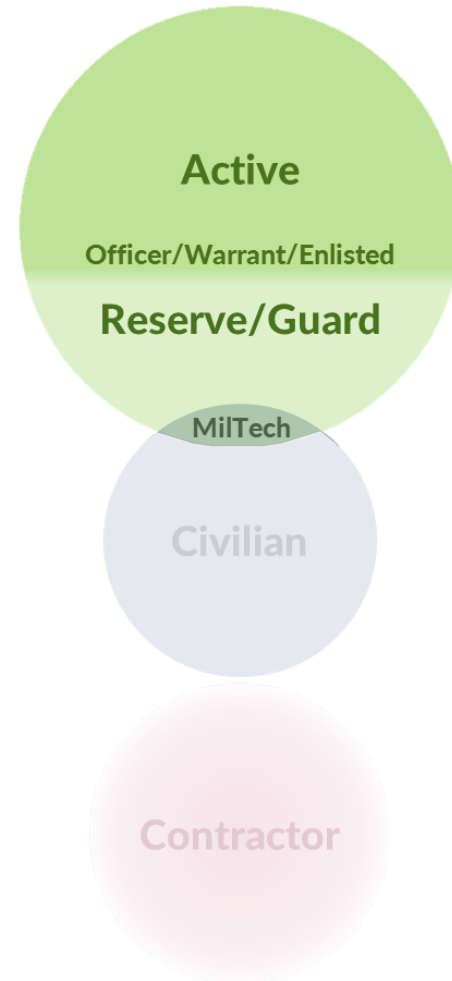
Officer versus Warrant & Enlisted



# We've done many studies examining tradeoffs between alternate manpower types

Officer versus Warrant & Enlisted

Active versus Reserve

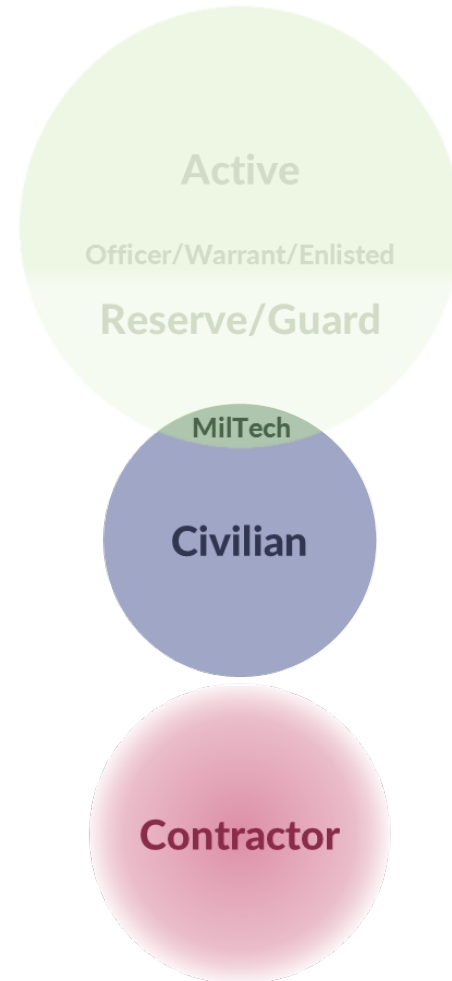


# We've done many studies examining tradeoffs between alternate manpower types

Officer versus Warrant & Enlisted

Active versus Reserve

Contractors versus Civilians



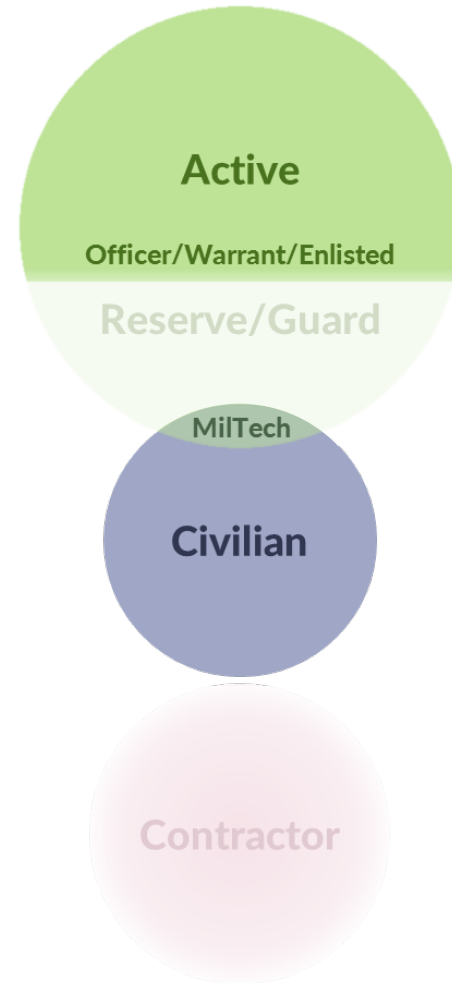
# We've done many studies examining tradeoffs between alternate manpower types

Officer versus Warrant & Enlisted

Active versus Reserve

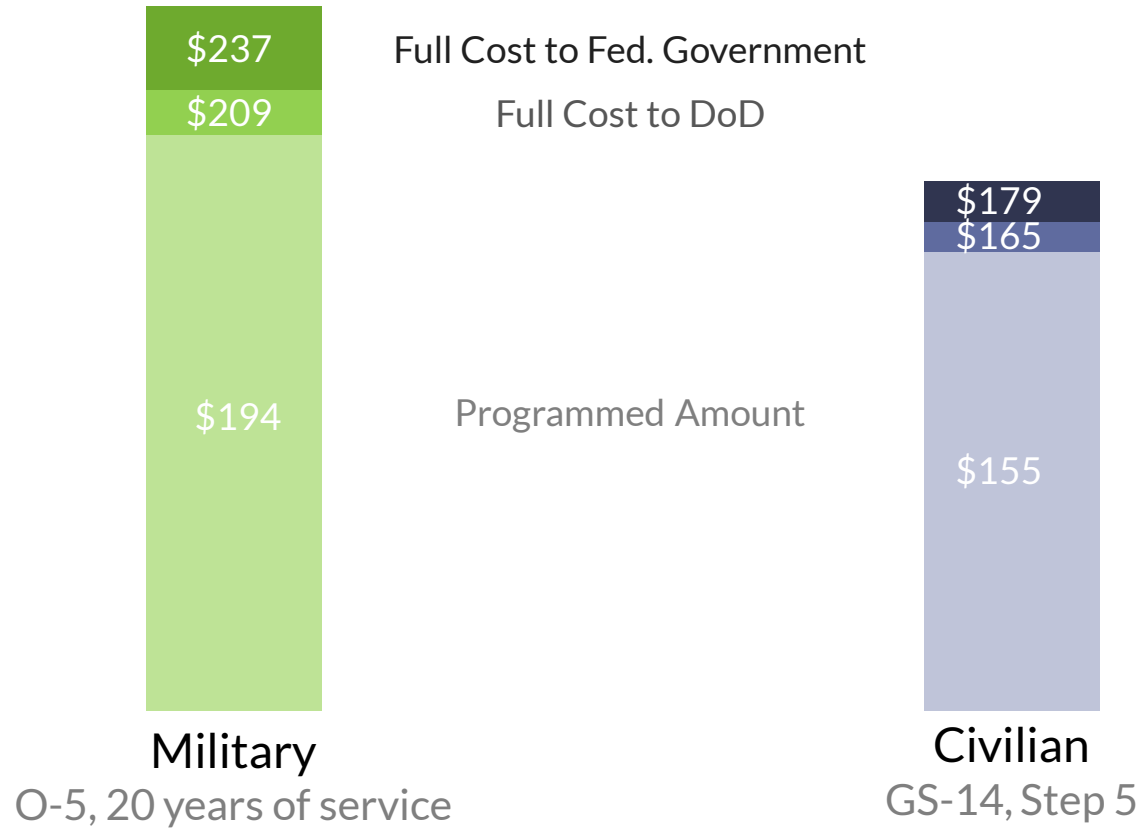
**Active Duty versus Civilians**

Contractors versus Civilians



# Failure to follow DoD's policy wastes resources

Sample Cost Comparison (\$FY13 thousands)



Source: DoDI 7041.04

# Repeated studies demonstrate large potential benefits from increased use of civilian personnel

Medical    \$500 million or 16,570 billets



# Repeated studies demonstrate large potential benefits from increased use of civilian personnel

Medical    **\$500 million** or 16,570 billets

Education and Training    **\$530 million** or 14,200 billets

# Repeated studies demonstrate large potential benefits from increased use of civilian personnel

Medical **\$500 million** or 16,570 billets

Education and Training **\$530 million** or 14,200 billets

Cyber **\$76 million** or 1,728 billets

# Repeated studies demonstrate large potential benefits from increased use of civilian personnel

Medical	<b>\$500 million</b> or 16,570 billets
Education and Training	<b>\$530 million</b> or 14,200 billets
Cyber	<b>\$76 million</b> or 1,728 billets
Remotely Piloted Aircraft	<b>\$17 million</b> or 274 billets

# Bad incentives encourage overuse of military personnel

# Congress sees civilians as wasteful overhead



Military end strength → **combat power**



Civilian personnel → **bureaucracy**

# Civilian positions are more vulnerable to cuts



Military end strength is easier to protect



# From a local commander's or manager's perspective, civilians can be more challenging to hire



**Keyword:**

**Location:**

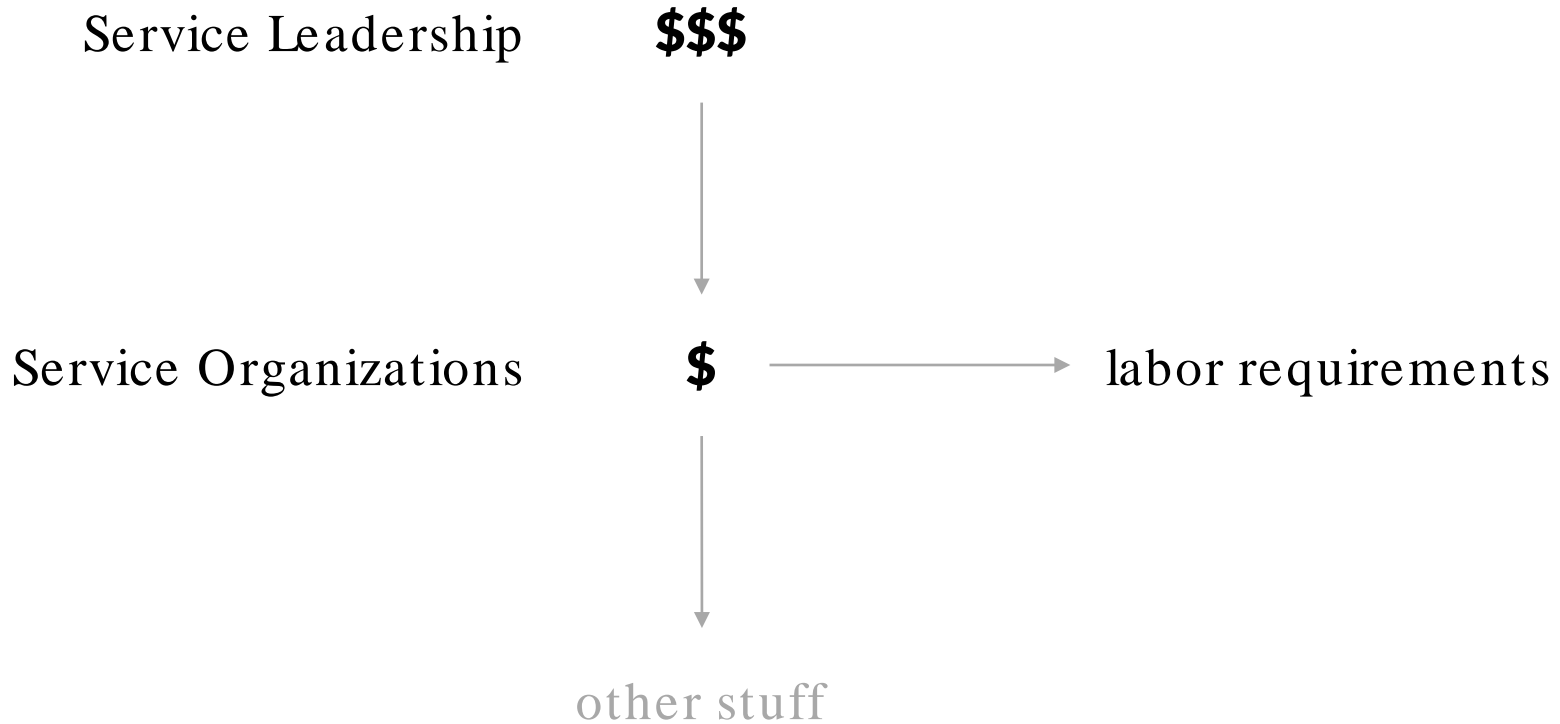
U.S. Citizens

Federal Employees [?](#)

[Search](#)

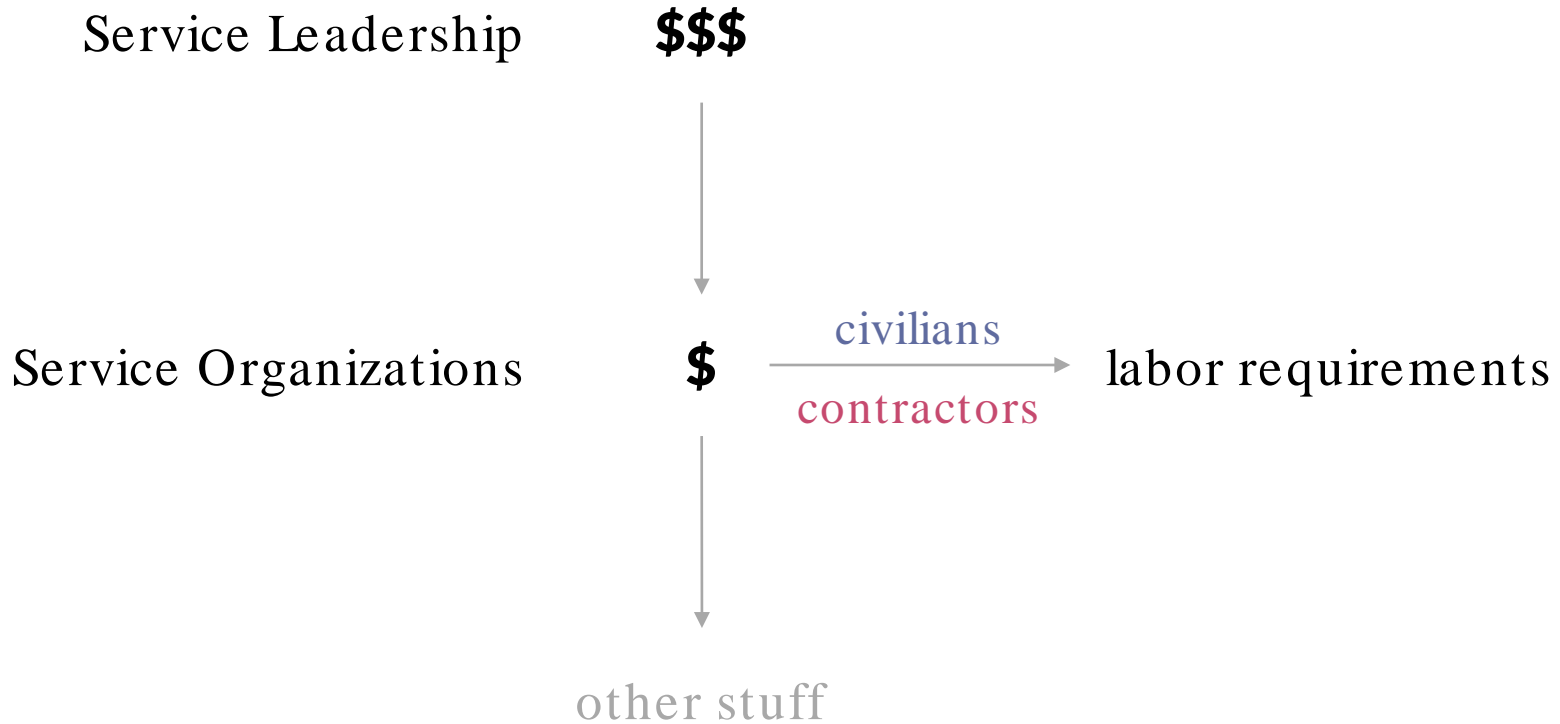
[Advanced Search >](#)

# Local commanders and managers perceive military personnel to be “less expensive” or even “free”

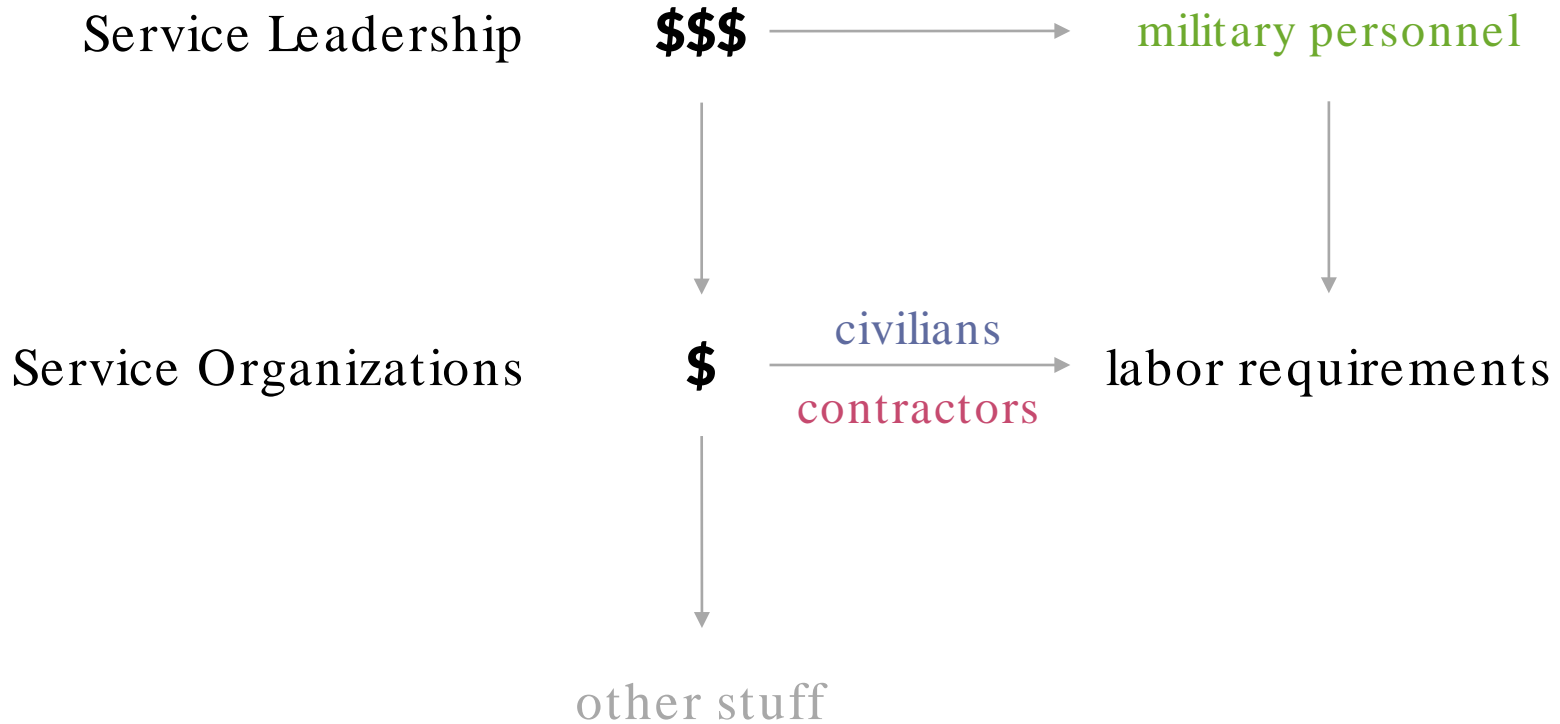




# Local commanders and managers perceive military personnel to be “less expensive” or even “free”



# Local commanders and managers perceive military personnel to be “less expensive” or even “free”



# Military-to-civilian conversions are risky

Can't sync budgets

May require budget increases

Civilians are more likely to face cuts

# Inconsistent application of “military essentiality” definitions shield military personnel

Military-unique knowledge and skills

Command & control, risk mitigation, esprit de corps

Required by law, executive order, treaty

Career development, sea-shore rotation, wartime assignment

Unusual working conditions or cost

**Recent approaches to managing workforce mix  
don't solve the underlying problems**

# Recent solutions may even be counterproductive

Hiring freezes

Conversion bans

Across-the-board cuts

# Successful long-run solutions must address the underlying incentive problems

Ensure funding for civilians during conversions

Consider integrating military and civilian funding

Clarify guidance on military essentiality

Promote greater flexibility in the civilian hiring process

**IDA**

The logo consists of the letters 'IDA' in a bold, black, serif font. A thick, dark red horizontal line is positioned directly beneath the letters, extending slightly beyond their width on both sides.



**REPORT DOCUMENTATION PAGE***Form Approved  
OMB No. 0704-0188*

The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

**PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

<b>1. REPORT DATE (DD-MM-YYYY)</b>		<b>2. REPORT TYPE</b>		<b>3. DATES COVERED (From - To)</b>	
<b>4. TITLE AND SUBTITLE</b>				<b>5a. CONTRACT NUMBER</b>	
				<b>5b. GRANT NUMBER</b>	
				<b>5c. PROGRAM ELEMENT NUMBER</b>	
<b>6. AUTHOR(S)</b>				<b>5d. PROJECT NUMBER</b>	
				<b>5e. TASK NUMBER</b>	
				<b>5f. WORK UNIT NUMBER</b>	
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b>				<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b>				<b>10. SPONSOR/MONITOR'S ACRONYM(S)</b>	
				<b>11. SPONSOR/MONITOR'S REPORT NUMBER(S)</b>	
<b>12. DISTRIBUTION/AVAILABILITY STATEMENT</b>					
<b>13. SUPPLEMENTARY NOTES</b>					
<b>14. ABSTRACT</b>					
<b>15. SUBJECT TERMS</b>					
<b>16. SECURITY CLASSIFICATION OF:</b>			<b>17. LIMITATION OF ABSTRACT</b>	<b>18. NUMBER OF PAGES</b>	<b>19a. NAME OF RESPONSIBLE PERSON</b>
<b>a. REPORT</b>	<b>b. ABSTRACT</b>	<b>c. THIS PAGE</b>			<b>19b. TELEPHONE NUMBER (Include area code)</b>

