

IDA

INSTITUTE FOR DEFENSE ANALYSES

**Market Forces and Total Force Management:
Military Medical Community**

Linda Wu

May 2013

Approved for public release;
distribution is unlimited.

IDA Document NS D-4918

Log: H 13-000719

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

The views, opinions, and findings should not be construed as representing the official position of either the Department of Defense or the sponsoring organization.

Copyright Notice

© 2013 Institute for Defense Analyses, 4850 Mark Center Drive, Alexandria, Virginia 22311-1882 • (703) 845-2000

INSTITUTE FOR DEFENSE ANALYSES

IDA Document NS D-4918

**Market Forces and Total Force Management:
Military Medical Community**

Linda Wu

Market Forces and Total Force Management: Costing the Military Medical Community

Linda Wu

2013 WEAI Conference

- **Introduction**
- Market Forces and Total Force Management
- Visibility of Cost
- Conclusions
- Recommendations

IDA | Introduction: The Department of Defense Economy

- With an annual budget in excess of \$600B, the Department of Defense is often thought of as the largest “company” in the world.
 - The largest actual company in the world is Exxon with \$480B in annual revenue.
- A better reference for many purposes, however, is to think of DoD as around the 20th largest “country” in the world.
 - DoD’s annual budget is about the size of Switzerland and Sweden’s annual GDP.
- This emphasizes that, for much of DoD management, it is more useful to think of DoD as **an economy with many heterogeneous integrated markets**, rather than as a unified company that can be centrally planned.
- This is especially true in the discussion on total force mix. The introduction of market forces to this discussion will improve the environment in which total force mix decision making occurs.

IDA | Historical Example

- One of the largest examples in DoD of introducing markets is in logistics.
- Historically, logistics goods and services, e.g., maintenance and consumable supplies, were produced with appropriated funding and administratively allocated to operating forces.
- Over time, many providers of logistics services have become organized as “companies” that “sell” their products to operating forces, with appropriated funding awarded to the “customers” in the operating forces.
- This changes many aspects of logistics:
 - More efficient consumption: Making the operating forces pay for their logistics support provides an incentive to manage demand more efficiently than when logistics was a “free good.”
 - More efficient production: Making logistics service providers “earn” business and face competition from other potential service providers provides an incentive for more efficient production.

- Introduction
- **Market Forces and Total Force Management**
- Visibility of Cost
- Conclusions
- Recommendations

IDA | Market Forces and Total Force Management

- Perhaps the most important market failure driving inefficiency in total force mix decision making is the inaccurate pricing of military personnel.
- Military personnel are generally assigned by administrative allocation.
 - Customers receive military personnel for free.
 - Meanwhile, customers often pay directly for civilians and contractors (either personal services contractors or contracts for goods and services).
- Even when a price is assigned to military personnel, it usually significantly understates the full price.
 - Military personnel costs are spread across the DoD budget and across time.
 - Only a fraction of the cost of an active duty military member today is resident in the MILPERS account.
 - Meanwhile, customers generally experience almost the entire cost of civilians and contractors.

IDA | Military Medical Community

- The lack of visibility into the full cost of military medical personnel may be causing inefficiencies in total force management (e.g., overstaffing of the beneficiary care mission or accessing providers through the most expensive methods).
- The medical community contains numerous situations where very expensive goods and services are delivered for free to consumers by administrative allocation; examples include:
 - Active duty health benefit.
 - Non-Medicare-eligible retiree health care benefit.
 - In-house-produced beneficiary care.
 - Accession training for physicians and dentists (e.g., medical school and graduate medical education).
- Many of the inefficiencies generated by these situations are well known and accepted outside of the medical community.
 - But local managers persist in inefficient practices and defend them vigorously when challenged—they may be behaving rationally, given the incentives they face.
 - The Secretary frequently receives little support from across the Department when reforms are put forward.

- Introduction
- Market Forces and Total Force Management
- **Visibility of Cost**
- Conclusions
- Recommendations

- DTM 09-007 provides guidance on estimating the full cost of military and civilian personnel to compare costs.
- Four levels or categories of cost can be examined:
 - **Composite Rate:** Comptroller-issued composite rates by grade that are frequently used for pricing in manpower transfer agreements.
 - **Cash Flow DoD Costs:** The short-run variable costs borne by DoD; excludes personnel costs that are fixed in the short-run and/or that are paid in future budgets.
 - **DoD Cost:** Full cost to DoD; includes fixed costs that take time to adjust and future costs paid for in future budgets.
 - **Full Cost:** Considers the total costs paid by the taxpayer (both DoD and non-DoD costs) and costs paid today, along with costs borne in the future (on a notional accrual basis).



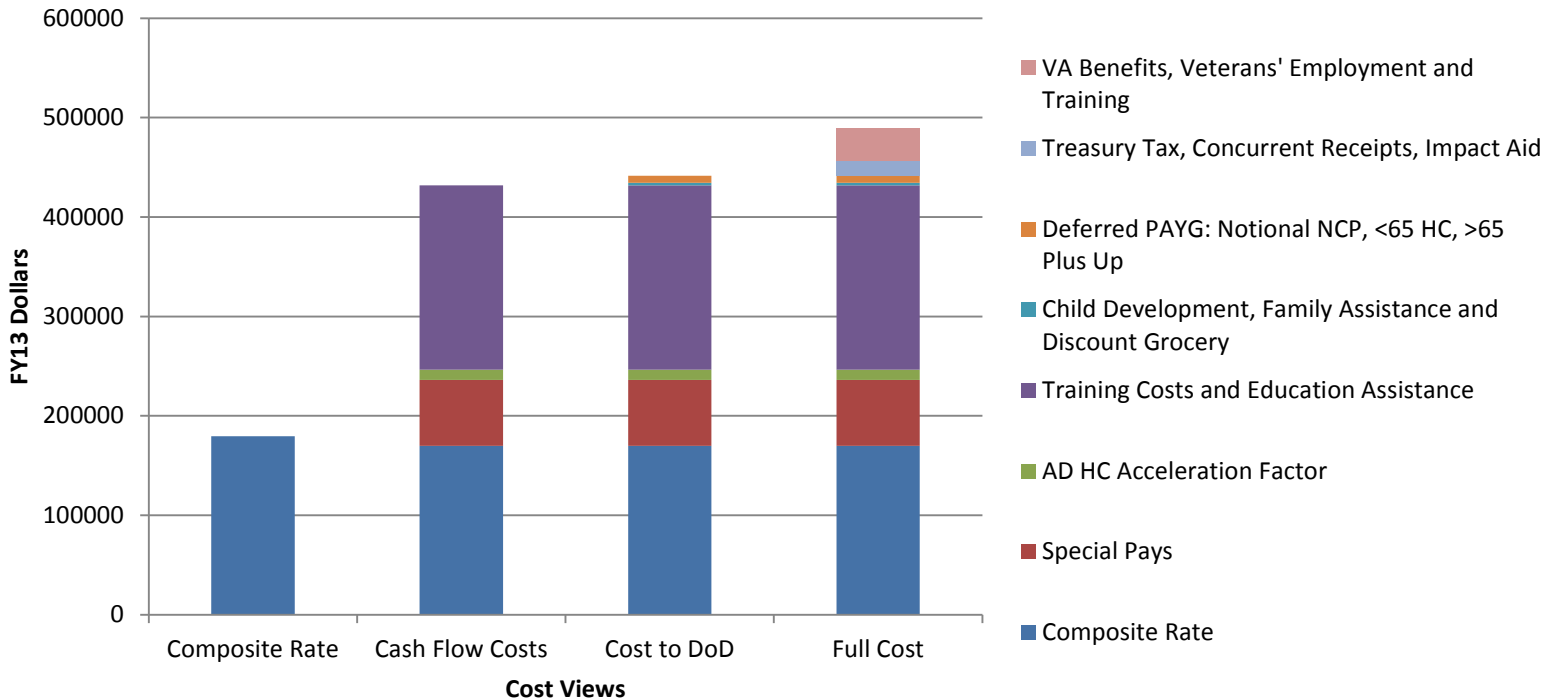
Military Cost Components and Data Sources

Cost Component	Source	Composite Rate	Cash Flow DoD costs	DoD Cost	Full Cost
Basic Pay, Allowances, Social Security and Medicare, Retired Pay (accrual), Travel/PCS/Transportation Subsidy, Health Benefit, retiree (>65 MERHCF accrual)	Composite Rate	✓	✓	✓	✓
Incentive and Special Pays	Service data	Partial	✓	✓	✓
Health Benefit, active duty and dependents	DoD Comptroller		✓	✓	✓
Training Costs, Recruitment and Advertising, and Education Assistance	Eric Christensen et al., "Life-Cycle Costs of Selected Uniformed Health Professions," 2009/ Medical Readiness Review 2006, 2011 Full Cost of Manpower Tool (FCoM)		✓	✓	✓
Child Development, Family Support Services, Discount Groceries	2011 Full Cost of Manpower Tool (FCoM)			✓	✓
Health Benefit, retiree (<65 retiree and family); >65 Plus Up	DoD Actuary			✓	✓
Health Benefit, other (TAMP and CHCBP); Discount Groceries, retiree; Separation Pay and Travel; Unemployment Benefits; Death Gratuities; and Survivor Benefits	Medical Readiness Review 2006			✓	✓
Tax Shortfall Payment (Treasury)	Medical Readiness Review 2006				✓
Concurrent Receipt (Treasury)	DoD Actuary				✓
Child Education (Education)	2011 Full Cost of Manpower Tool (FCoM)				✓
VA Benefits (Veterans Affairs)	Congressional Budget Office report 2002 / Budget report 2000				✓
Employment Training (Labor)	Medical Readiness Review 2006				✓



Medical Corps Cost Composition: Army

Cost View Comparison for an Average Army Physician



Cost Category	Medical Corps Cost
Special Pay	\$66,136
Training/Accession	\$185,244

Note: Army selected purely for illustrative purposes, the Navy and Air Force show the same result.

- **The composite rate understates physician costs by \$309,744.**
 - 21% of this difference is due to understating physician special pays.
 - 60% of this difference is due to understating physician training and accession costs.

IDA | Training Costs

- The largest costs for medical personnel not fully accounted for in the composite rate are training costs. Uniformed physicians and dentists often spend several years in USUHS and/or a DoD-funded GME program.
 - But using in-kind commercially available training for accessions is generally inefficient.
- With about 1,400 medical and dental accessions per year, this represents over \$1B per year in total expenditure.
 - Using cash bonuses and/or civilian training programs to access these individuals would be significantly cheaper.
- One driver of these inefficient decisions may be that the consumers of medical forces are not exposed to the costs of their decisions.
 - Introducing a market in which the Surgeons and Services had to pay directly for this accession training would provide incentives for consideration of more efficient accession policies.

IDA | Average Annual Medical Personnel Cost: Army

Corps	Mil/ Civ	Composite Rate	DoD Cash Flow	DoD	Full Cost
Medical	Mil	\$179,323	\$431,834	\$441,559	\$489,067
	Civ	-	\$301,859	\$307,686	\$328,122
Dental	Mil	\$175,366	\$292,870	\$302,561	\$349,499
	Civ	-	\$259,967	\$265,113	\$282,878
Nurse	Mil	\$141,965	\$182,645	\$192,006	\$233,472
	Civ	-	\$131,553	\$134,316	\$142,750
Medical Services	Mil	\$140,759	\$174,946	\$184,296	\$225,589
	Civ	-	\$131,602	\$134,386	\$142,905
Enlisted	Mil	\$71,587	\$88,965	\$97,633	\$125,373
	Civ	-	\$68,492	\$70,236	\$74,679

Civilian medical personnel are generally cheaper than military medical personnel.

Note: All costs are reported in FY13 dollars.

Source: IDA calculations of DTM 09-007-compliant cost estimates.

IDA | Cost Visibility and Incentives

- Incentives for efficient consumer decisions
 - If military personnel are administratively allocated for free or “sold” at a price significantly less than their marginal cost compared to the alternatives, there will be overconsumption of military personnel for non-military-essential functions.
 - This is observed systematically across DoD, but local decision makers are behaving rationally, given the incentives they face.
 - Improving the efficiency of total force mix is a necessary condition for surviving the sequester without gutting national security.
 - It will be easier to improve total force mix if local decision makers are incentivized to help total force mix improvement efforts rather than fight against them.
- Incentives for efficient producer decisions
 - The growth of military personnel costs is, perhaps, the largest internal cost growth factor eroding the spending power of DoD top-line.
 - But much of this cost growth is driven by elements of personnel costs that fall outside the MILPERS accounts, e.g., health care costs.
 - Producers, i.e., the Military Departments, are not exposed to the full responsibility for the cost growth of their product.
 - Controlling personnel cost growth is a necessary condition for surviving the sequester without gutting national security.
 - It will be easier to control personnel cost growth if producers are incentivized to help cost control efforts rather than fight against them.

- Introduction
- Market Forces and Total Force Management
- Visibility of Cost
- **Conclusions**
- Recommendations

IDA | Conclusions

- The composite rate understates special pays and training costs for medical personnel.
- Military direct accessions with bonus would likely be cheaper than “growing your own” through USUHS and GME/GDE.
- Civilian medical personnel are generally cheaper than military medical personnel.
- A more civilian-heavy medical force may offer DoD the potential for large cost savings.
 - Precise estimates would have to be made for programming use.

- Introduction
- Market Forces and Total Force Management
- Visibility of Cost
- Conclusions
- **Recommendations**

IDA | Recommendations

- It is more useful to think of DoD as an economy with heterogeneous interconnected markets. Therefore, it is important to create an environment with the right incentives for efficient decision making.
 - Continue efforts to improve the visibility of full cost in analytical exercises.
 - Including improvement of the data available for full cost estimating.
 - Move major non-MILPERS elements of full cost into the MILPERS accounts.
 - This is more effective than analytical exercises, but takes longer to accomplish.
 - Major elements would be non-military-essential accession training, non-Medicare-eligible retiree health care, and VA.
 - Could also create community-specific composite rates for particularly high cost communities like medical.
- Expose managers to the full total force trade space.
 - Managers are often given O&M dollars and military authorizations.
 - Their ability to trade between authorizations and dollars varies.
 - Exposing managers to full trade space with the unilateral right to make trades, and making them residual claimant to savings, would incentivize improved efficiency.

BACKUPS



Civilian Cost Components and Data Sources

Cost Component	Source	Cash Flow DoD Cost	DoD Cost	Full Cost
Annual Pay/Basic Pay/Locality Pay	VA Pay Tables (Medical and Dental Corps), MRR 2006 inflated to FY13 (all other corps)	✓	✓	✓
OC11 (other) Load Factor: Overtime/Holiday/Other Pays, Incentive/Performance Awards	2012 Full Cost of Manpower Tool (FCoM)	✓	✓	✓
OC12 load factor: Health Benefit (government share of FEHBP), Social Security and Medicare, Retired Pay (government share), Travel/PCS/transportation subsidy/relocation bonus, Life insurance/worker's compensation benefits	"DoD Civilian Personnel Fringe Benefits Rates," memo, http://www.dod.mil/comptroller/rates/	✓	✓	✓
Education Assistance	MRR 2006 inflated to FY13	✓	✓	✓
Recruiting, advertising, etc. (amortized)	MRR 2006 inflated to FY13	✓	✓	✓
OC13 load factor: Severance Pay/Separation Incentive, Severance Health Benefit	2012 Full Cost of Manpower Tool (FCoM)		✓	✓
Child Development	MRR 2006 inflated to FY13		✓	✓
Retirement Benefits: Civilian Retirement, Post-retirement Health Care, Post-retirement Life Insurance	"DoD Civilian Personnel Fringe Benefits Rates," memo, http://www.dod.mil/comptroller/rates/			✓

IDA | Average Annual Medical Personnel Cost: Navy

Corps	Mil/ Civ	Composite Rate	DoD Cash Flow	DoD	Full Cost
Medical	Mil	\$183,354	\$405,282	\$414,965	\$462,353
	Civ	-	\$302,120	\$307,611	\$327,948
Dental	Mil	\$182,860	\$291,002	\$300,685	\$348,066
	Civ	-	\$261,588	\$266,413	\$284,143
Nurse	Mil	\$151,777	\$186,540	\$195,895	\$237,849
	Civ	-	\$137,110	\$139,674	\$148,549
Medical Services	Mil	\$160,272	\$188,996	\$198,433	\$241,725
	Civ	-	\$134,290	\$136,822	\$145,569
Enlisted	Mil	\$77,247	\$96,468	\$105,158	\$133,805
	Civ	-	\$67,212	\$68,612	\$72,926

Note: All costs are reported in FY13 dollars.

Source: IDA calculations of DTM 09-007-compliant cost estimates.

IDA | Average Annual Medical Personnel Cost: Air Force

Corps	Mil/ Civ	Composite Rate	DoD Cash Flow	DoD	Full Cost
Medical	Mil	\$166,796	\$385,629	\$395,218	\$440,485
	Civ	-	\$286,076	\$291,685	\$311,371
Dental	Mil	\$170,545	\$325,692	\$335,330	\$381,399
	Civ	-	\$253,969	\$259,048	\$276,660
Nurse	Mil	\$144,050	\$183,654	\$193,000	\$234,234
	Civ	-	\$130,219	\$132,997	\$141,593
Medical Services	Mil	\$147,497	\$167,383	\$176,767	\$218,624
	Civ	-	\$133,724	\$136,584	\$145,502
Enlisted	Mil	\$72,763	\$89,323	\$98,173	\$129,246
	Civ	-	\$71,323	\$73,106	\$77,805

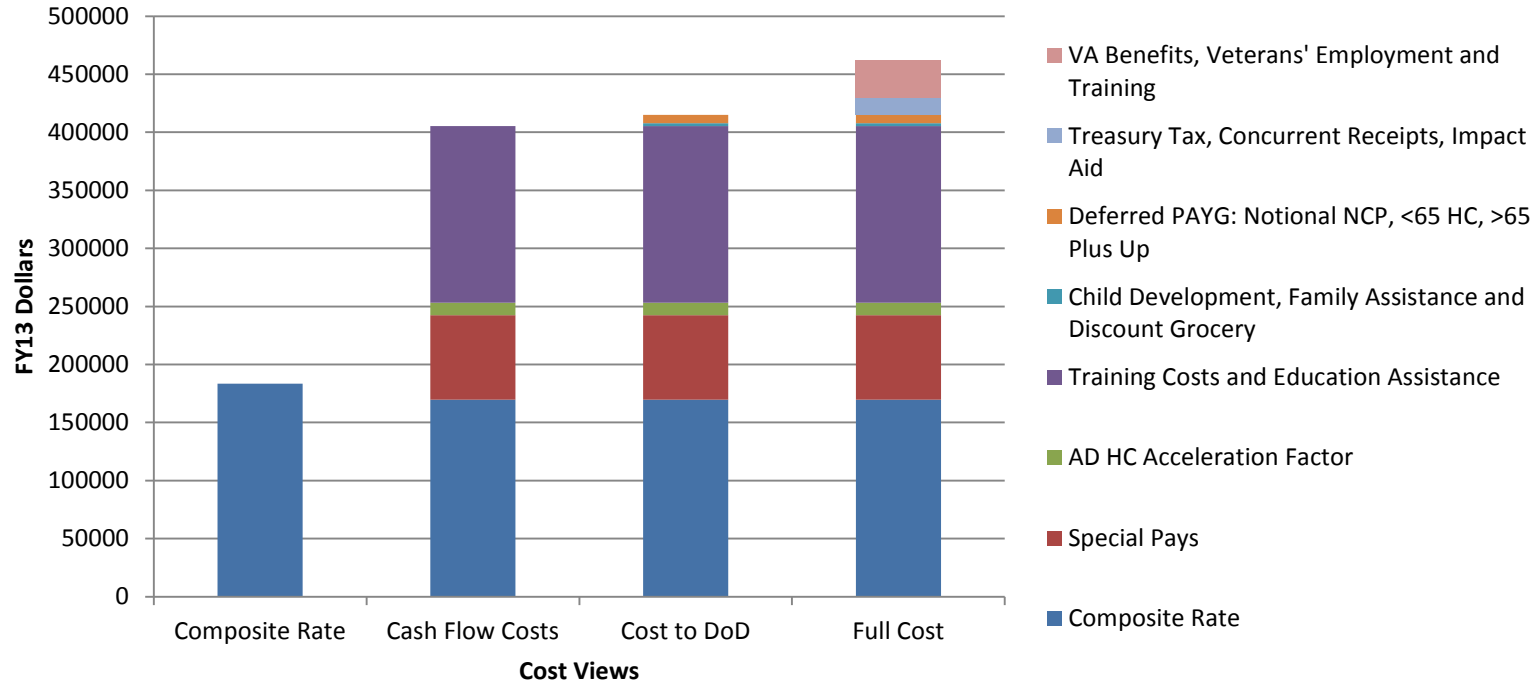
Note: All costs are reported in FY13 dollars.

Source: IDA calculations of DTM 09-007-compliant cost estimates.



Medical Corps Cost Composition: Navy

Cost View Comparison for an Average Navy Physician



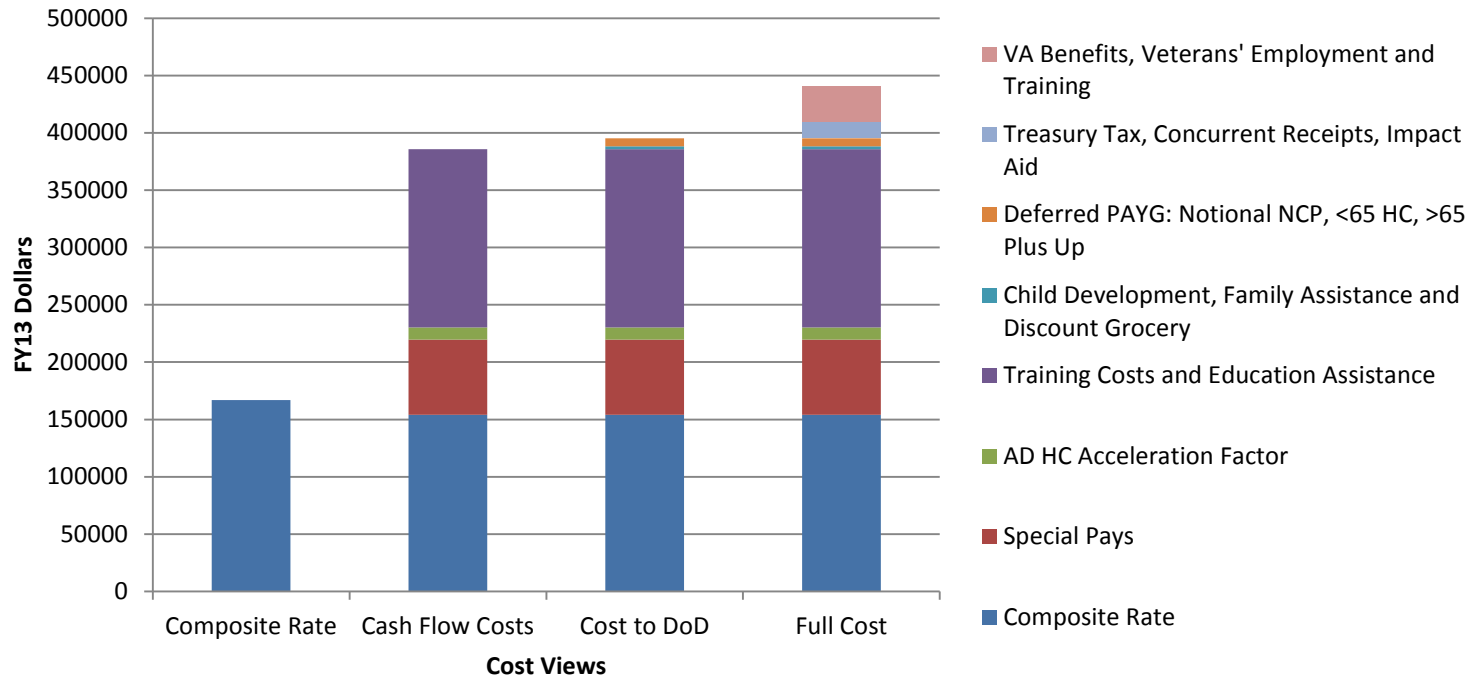
- The composite rate understates physician costs by \$278,999.
 - 26% of this difference is due to understating physician special pays.
 - 55% of this difference is due to understating physician training and accession costs.

Cost Category	Medical Corps Cost
Special Pay	\$72,857
Training/Accession	\$152,158



Medical Corps Cost Composition: Air Force

Cost View Comparison for an Average Air Force Physician



- The composite rate understates physician costs by \$273,690.
 - 24% of this difference is due to understating physician special pays
 - 57% of this difference is due to understating physician training and accession costs.

Cost Category	Medical Corps Cost
Special Pay	\$65,558
Training/Accession	\$155,333

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.

1. REPORT DATE (DD-MM-YYYY)	2. REPORT TYPE	3. DATES COVERED (From - To)
------------------------------------	-----------------------	-------------------------------------

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)	8. PERFORMING ORGANIZATION REPORT NUMBER
---	---

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT

13. SUPPLEMENTARY NOTES

14. ABSTRACT

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			19b. TELEPHONE NUMBER (Include area code)

