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Health Professions' Retention-Accession Incentives Study Report to Congress

(Phase I: Compensation Comparison of Selected Uniformed and Private-Sector Health Care Professionals)

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Summary

Introduction

The Military Health System (MHS) is charged with maintaining a healthy active duty force, attending to the sick and wounded in time of conflict, and successfully competing for and treating patients within the peacetime benefit mission. Because the military relies on a single force to meet these sometimes disparate missions, it must first attract and access high-quality health care professionals, then cultivate an environment that retains the required inventory of these highly skilled professionals, and ultimately ensure that these personnel are competent in both wartime and peacetime benefit settings.

The appropriate level of compensation for individuals serving in the military is continually being monitored. This issue is particularly important for military health care professionals because they are costly to access and train, and they have skills that are readily interchangeable to the private sector. If compensation is perceived too low for the demands and duties required, uniformed health care professionals may abandon the military for a private-sector career path. Conversely, total compensation should be no higher than the amount required to attract and retain a quality force.

Congressional awareness of this mandate and competition from the private sector for qualified health care professionals resulted in the following committee language in the National Defense Authorization Act for Fiscal Year 2001:

> The committee directs the Secretary of Defense to conduct a review and to report to the Committee on Armed Services of the Senate and the House of Representatives on the adequacy of special pays and bonuses for medical corps officers and other health care professionals. The committee directs this review because of the level of competition within the economy for health care professionals and the potential

> devaluation of current special pays and bonuses, which could have a significant impact on recruiting and retention of health care professionals.

As a result of this language, the TRICARE Management Agency (TMA) at DoD asked the Center for Naval Analyses (CNA) to conduct a study to address the concerns voiced by Congress. The issues that this study will ultimately address are important and timely. Simply put, DoD is competing against the private sector for health care professionals. Private-sector employers are offering accession bonuses, flexible work schedules, portable retirement plans, continuing educational opportunities, employee-tailored benefits, and competitive salaries to attract these professionals.

Background

America's health care delivery and financial structures have been undergoing significant transformation in the last decade. Market forces have led to the emergence of new organizational forms and a shift in the role and function of traditional health care delivery organizations. These so-called new services for new markets do not revolve around the traditional acute inpatient setting typical in the 1980s [1]. In addition to vast new technological and pharmaceutical interventions, numerous performance improvement initiatives, such as outpatient surgery units, disease and population health management, evidenced-based medicine, and integrated delivery system strategies, are evolving. These changes have not escaped the military as DoD restructures its health care delivery system (TRICARE) in an ongoing effort to improve quality and to control costs. The MHS's peacetime benefit "culture" is also beginning to change. The emphasis is on better business practices, optimizing resources, and increasing productivity while maintaining the quality of patient outcomes [2].

Health care professionals are shaped by the dynamics that influence the structure of organizations and their jobs [3, 4]. The expanding scope of practice for primary care physicians and non-physician specialties (e.g., Physician Assistants and Advance Practice Nurses) and the willingness of the Health Care Finance Administration (HCFA), individual states (through Medicaid), and third-party payors to

reimburse these professionals, illustrate how the "work" of health care is changing. Once again, the MHS workforce mirrors the private-sector as it, too, has expanded the numbers and scope of practice of these health care professionals in both operational and fixed treatment facility settings. At the same time, the MHS is trying to find additional efficiencies within its own system to meet the demands of its growing beneficiary population by maximizing the productivity of its workforce resulting in an increased "work tempo" from a decade ago.

How does one know if uniformed health care professionals are being adequately compensated? The answer lies in the MHS's ability to fill both their peacetime and active component readiness requirements with the right professionals, with the right skill mix, with the right grade, and with the right years of experience from today's force and future accessions. If the MHS's active duty force meets these requirements, their compensation is adequate. If one of these dimensions is missing or deficient, the current special pays and bonuses may need adjusting to help achieve the required inventory for a given specialty requirement.

Several questions require answers. Has retention increased or decreased in the last decade? Is there, in fact, a pay disparity between uniformed and private-sector health professionals? If a pay disparity exists, how large is it? Does it vary by specialty? How much does the pay gap affect retention?

Our approach to answering the questions posed by Congress has three phases. The first phase of our study, and the focus of this report, is a comparative analysis of compensation between uniformed and private-sector health care professionals at logical military career junctures. This analysis is an essential first step in this study process because we need to fully understand whether a military-civilian pay gaps exists, how large it is, and at what career junctures to evaluate the effect of pay on retention during the second phase of this study. Literature suggests that while motivational and organizational variables, such as work environment, are strongly associated with job satisfaction, pay and promotions are more closely linked to career satisfaction [5, 6]. For MHS professionals, they are continually assessing both

their satisfaction with their chosen specialty and which career track (civilian or military) may best meet their needs.

Approach

To effectively respond to the concerns of the Senate and the House Armed Services Committees, we felt it was important to select a wide spectrum of the officers serving in today's MHS. Therefore, this study entails the following officer specialties, which represent over 75 percent of the total MHS officer end strength:

- Physicians (24 specialties)
- Dentists
- Pharmacists
- Optometrists
- Clinical Psychologists
- Physician Assistants (PAs)
- Registered Nurses
  - — Certified Registered Nurse Anesthetists (CRNAs)
  - — Other Advanced Practice Nurses[1] (APNs).

During the second phase of this study, we will determine the MHS's ability to meet its medical officer and selected other health care professional personnel requirements by:

- Calculating the continuation, retention, accession, and training trends over the last decade[2]

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1. For this study, APNs include family nurse practitioners, nurse midwives, and pediatric nurse practitioners.
2. We will use the Health Manpower Personnel Data System (HMPDS) personnel tapes from the Defense Manpower Data Center (DMDC) as the primary data source for phase II of this study. We gratefully acknowledge the assistance from DMDC representatives in acquiring and interpreting these data.

- Determining current and projected manning levels based on:
  - — Billet authorizations
  - — Readiness requirements
  - — Grade and length-of-service distribution
  - — Modeling the ideal force versus the current force
- Evaluating the effect of pay on retention through regression analysis
- Assessing the MHS's ability to meet its active duty billet authorization and readiness profiles in later fiscal years.

Once we know the answers to questions posed in phase II of the study, we will be able to assess the adequacy of existing and proposed special pay and accession bonus plans for MHS health care professionals (phase III of the study plan), and make cogent recommendations, if warranted. We will document the findings of phases II and III of this study and submit to DoD (TMA) in late fall 2001. We now turn our attention to the first phase of the study—comparing uniformed and private-sector health care professionals' compensation.

Findings

Physicians

We calculated and compared the current total compensation (sum of cash salary, all special pays, and benefits) between uniformed and private sector (salaried) physicians for 24 physician specialties at three military physician career junctures: completion of 7, 12, and 17 years of service (YOS). Looking at a cross section or "snapshot" of current compensation, we find that a pay gap does exist between uniformed and private-sector civilian physicians for all of the physician specialties that we examined. Our analysis shows that the current military-civilian physician pay gap varies widely by specialty—13 to 63 percent at the 7-YOS juncture and 3 to 55 percent at the 12-YOS career point. The pay gap is usually wider for physician specialties, such as surgeons and radiologists, who perform mostly procedures than for such

specialties as family practice and internal medicine that do mostly evaluation and management activities.

By comparing our data with a 1991 report that used the same methodology and employee physician data source, we estimate that the uniformed-civilian physician pay gap has widened for each of our specialties over the last decade. The change in pay gap ranges from 3 to 25 percentage points at the 7-YOS juncture depending on specialty. However, the width of the gap narrows for most specialties by the end of 12 YOS.

We also estimated the military-civilian physician pay gap based on present values of compensation for hypothetical "stay-leave" decisions. The present-value calculations differ from the snapshot of current compensation by accounting for the remaining compensation that a uniformed physician specialist would receive until reaching 20 YOS, the projected military retirement income, and the cash and benefits from working in the private sector until age 65. This compensation stream is compared with the compensation stream that a person would receive if he/she left the military before 20 YOS and pursued a civilian career. This analysis shows that the present value of the uniformed services career compensation option ranges from 13 percent above the median private sector for family practice to 7 percent below for orthopedic surgery at the 12-YOS juncture.

Other health care professionals

In addition to physicians, we looked at eight other non-physician health care professionals. Our comparative *cash compensation* analyses (excluding benefits), between *other* uniformed and private-sector health care professionals reveal the following:

- A significant uniformed-civilian compensation gap exists between dentists, optometrists, and clinical psychologists at all career junctures, ranging from 13 to 42 percent.
- A 16-percent uniformed-civilian compensation gap exists for pharmacists at the entry level, narrows to 9 percent at the mid-junior juncture, and then reaches parity at later career points.

- Uniformed CRNAs experience a 10-percent compensation gap with their private-sector counterparts at the entry level, but recover and exceed civilian compensation at later career points.
- Uniformed cash compensation for Physician Assistants, Registered Nurses, and APNs meets or exceeds their private-sector equivalents at all career junctures.

We find that the MHS relies heavily on several types of subsidized accession programs to initially attract these health care professional applicants to the military, or a particular specialty, and meet their total accession requirements. Examples of the types of subsidization programs being used include the Armed Forces Health Professional Scholarship Program (AFHPSP), enlisted upward mobility, in-service graduate training programs, and accession bonuses. Our analysis shows this trend continuing, and potentially increasing, for the following reasons:

- Increased student debt load
- Entry-level pay disparities for many specialties
- Dwindling applicant pool for some specialties.

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Physician compensation

Background

Congress authorizes the Department of Defense to offer financial incentives to uniformed physicians to attract and retain the desired force structure. A policy board annually reviews physician manning, civilian income data, and MHS requirements to determine the Multiyear Special Pay (MSP) and Incentive Special Pay (ISP) plan rates that will be offered to uniformed physicians. This portion of our study compares compensation for uniformed physicians continuing in the military versus leaving for the private sector.

The "compensation package" offered to both military and private-sector physicians comprises many elements. It is vital that policymakers and individual military physicians understand all the components of compensation (salary, incentive pays, pension, vacations, health care, and other benefits) to make a prudent comparison of the military and the private sector.

Methodology

We have developed a model comparing total compensation (salary, special and incentive pays, pension, and other benefits) for 24 physician specialties based on the most typical MHS career.[3] Private-sector compensation was culled from proprietary databases representing over 90 *employer-based* health care organizations and over 22,000 physician incumbents. The robustness of this data source is necessary when comparing specialties at different career junctures. We feel that comparisons to this sample, salaried physicians, are appropriate because the characteristics of the organizations reporting data most closely resemble the military environment (56 percent are hospital-based facilities, 29 percent are group practices, and 15 percent are Health Maintenance Organizations).

There are concerns about using only *salaried* physician compensation data. According to the American Medical Association (AMA), 36 percent of America's physicians self-reported working for an employer [7]. This same report shows a pay gap, at the median net income level, between self-employed (private practice) and employee (salaried) physicians.[4] The report [7] also states:

> Self-employed physicians tend to work more hours and see more patients, have more years of experience, are likely to be certified by one or more speciality boards, and are more likely to be male, all factors associated with higher earning. Controlling for these factors, the income advantage of self-employed physicians would be much less than reported.

Although our compensation comparisons may underestimate the *potential* compensation differential for those military physicians who choose to separate and have the option to join *select private practices*, our model provides policy-makers a valuable tool for comparing the maximum amount of compensation an MHS physician can receive

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3. Based on discussions with representatives from the TMA, Army, Navy, and Air Force, the model adopts an accession, career, and training profile typical of most military physicians. The profile assumes graduation from medical school at age 26, due course promotion, a 4-year AFHPSP followed by an active duty internship (PGY-1), and completion of a full-time in-service residency (PGY-2). Exceptions follow. Unlike the Army and Air Force, Navy physicians are assumed to serve 2 years as general medical officers (GMOs) before commencing residency. The Army and Air Force typically send physicians immediately into residency training following internship, and fellowship training commences right after residency training. Navy specialties requiring a fellowship (e.g., gastroenterology) are assumed to occur after a 2-year staff utilization tour in the primary specialty (e.g., internal medicine). The predominant profile for Army and Air Force physicians is nearly the same. The two exceptions are neurosurgery and otolaryngology: the Army residency programs are assumed to be 6 and 5 years, respectively, and the Air Force residency programs are assumed to be 5 and 4 years, respectively.

4. 1999/2000 AMA *Physician Socioeconomic Statistics* report shows that the median net income for all self-employed physicians was $200,000 versus $140,000 for all employee (salaried) physicians. Data are from the 1998 Socioeconomic Monitoring System Survey of Physicians.

compared with a *salaried* specialist working in a similar environment with the same years of experience.

For each of the specialities, we present a series of compensation comparisons (total value of current cash and benefits) that reflect two different methodological approaches for making compensation comparisons.[5] Compensation includes all cash and benefits for fully trained specialists.[6]

For uniformed physicians, cash compensation includes regular military compensation (RMC), and medical officer special and incentive pays (including board certification pays).[7] Benefit compensation includes health care, military retirement, the Survivor Benefit Plan, and other active duty benefits.

In previous CNA work, conducted for the Under Secretary of Defense for Personnel and Readiness, we calculated the value of the benefits (i.e., the value based on imputed rather than actual costs) provided by DoD in its role as employer to active duty personnel [8]. We used this same methodology for calculating benefits for this portion of the study. Throughout this report, we will discuss trends in benefits because many private-sector employers are enhancing and tailoring their benefit programs in response to tightening labor markets. For uniformed professionals, DoD bears a cost for providing a large array of "benefits" (such as housing, health care, pension) that may have

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5. The Hay Group served as subcontractor for all physician cash and benefit compensations. We wish to acknowledge the efforts of Michael Gaffney and Sevim Kuyumcu of Hay Group.

6. The study did not consider the subsidization value for the Armed Forces Health Professional Scholarship Program, nor did it make compensation comparisons during the period of residency training.

7. RMC consists of basic pay, basic allowance for housing, basic allowance for subsistence, and the tax advantage accruing to the non-taxable nature of housing and subsistence allowances. Basic pay represents about 66 percent of RMC for an 0-3 and approximately 75 percent of RMC for an 0-6. We also include all medical special pays (including board certification) offered to these specialties and assume that each specialist takes advantage of all available special programs when eligible. Appendix A describes each of these components in more detail.

little "value" for the military officer depending on their situation and career intentions. Previous CNA research finds that many military personnel, particularly junior officers, do not place a high value on their benefits until they near retirement or have a "special medical needs" child [2].

Private-sector compensation includes base salary, incentive pay, health care, pension and capital accumulation plan, and other benefits. Capital accumulation plans include 401(k) plans and 403(b) plans. The value shown for capital accumulation plans is based on employer matching contributions only. Amounts resulting from employee contributions and executive benefits, such as supplemental non-qualified retirement plans, are not included. Calculations for uniformed and private sector cash and benefits are as of 1 July 2000.[8]

The first type of comparison takes a snapshot of an MHS physician's compensation as of July 2000 and compares it with the compensation of his or her civilian equivalent.[9] We refer to this as a cross-sectional comparison. We have calculated cross-sectional compensation comparisons for MHS physicians who are at one of three decision points in their careers—completion of 7, 12, or 17 years of service. We present these cross-sectional comparisons because these data are often a compelling factor for many individuals faced with the decision to continue in their current career path or change course. For this reason, the cross-sectional comparisons may have a significant role in physician retention.

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8. Physician survey data are effective as of mid-1999. We adjusted all data to 2000 by applying a 4.5-percent trend factor.

9. By civilian equivalent, we mean a physician of the same specialization with equivalent years of practice (YOP) as a fully trained specialist working in the private sector. As an example, for internal medicine, at age 33 a Navy physician would have completed 7 YOS, composed of a 1-year active duty internship, 2 years as a GMO, 2 years in internal medicine (IM) residency, and 2 years of practice as a IM specialist. The Navy physician total compensation will be compared with a private-sector IM specialist with 2 years in practice. The Army and Air Force physician total compensation will be compared with a private-sector IM specialist with 4 years in practice because Army and Air Force physicians do not serve a 2-year GMO tour before beginning their residency.

From an economic perspective, when faced with the decision to continue with a particular career path or choose another path, one should compare the stream of future cash and benefits of each option rather than look at just a single point in time. We typically make this type of comparison by looking at the present value of each compensation stream.[10] Therefore, present-value compensation comparisons represent the second type of comparisons presented in our study. We calculated the present value of the stream of future cash and benefits that a uniformed physician could expect to receive by staying on active duty, or by separating at one of the same three career points (7, 12, and 17 YOS) and practicing in the private sector.[11] Because we consistently applied the most typical career progression profile assumptions to each specialty and because residency and fellowship training lengths vary, physicians in some specialties are still obligated and not eligible to leave the service at the 7- and 12-year marks. For these cases, we do not compute the compensation comparisons.

The cross-sectional and present-value comparisons are presented for both median and 75th percentile private-sector data. Appendix A contains an overview of the assumptions, methodology, and benefit calculations that were used to derive these estimations. An August 2000 CNA document (CIM D0002053.A1, *Comparison of Navy and Private-Sector Physicians' Total Compensation, by Medical Specialty*) and a February 2001 CNA document (CIM D0003361.A1, *Comparison of Army/Air Force and Private-Sector Physicians' Total Compensation, by Medical Specialty*) provide detailed descriptions of the entire physician compensation and analysis.

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10. Present value is a convenient way to compare two different income streams. The present value tells you what the value of a future stream of payments is worth if it were paid in one lump sum *today*.

11. Specifically, we compare the options of (1) remaining on active duty until retirement (at 20 YOS) followed by practicing in the private sector until age 65, and (2) separating at 7, 12, or 17 YOS and practicing in the private sector until age 65. Present-value calculations were only performed for Navy physicians because of time limitations, but we feel (and the TMA and the individual service representatives all agreed) that these values reflect the same economic stay-leave decisions for Army and Air Force physician specialties.

Results—current cash compensation (at 7 years of service)

Based on the predominant career path previously described, the majority of uniformed physician specialists—who have had their medical school subsidized through the AFHPSP, receive their intern and residency training while on active duty—are not able to separate from the military at this career juncture because they have not satisfied their active duty obligation.[12] Only 4 of 24 specialties modeled are able to separate at this career point: family practice, internal medicine, pediatrics, and occupational health.

Regardless, we think that the 7-year mark is important to examine even for those specialists that cannot separate at this career juncture. Although the majority of uniformed physician specialists cannot separate at this point, deferred specialists (who have had their medical school subsidized through AFHPSP but have deferred their active duty to complete residency training in civilian institutions) and financial assistance program accessions will be able to leave active duty at about the 4-YOS juncture.[13] The military-civilian physician pay gap at the 7-YOS point will be a major factor in their stay-leave decision. Based on our model, the vast majority of Army and Air Force medical officers will have satisfied their active duty obligation by the end of 9 years of service and Navy specialists by the end of 11 years, so the pay gap at the 7-YOS point has relevance and may be the point where uniformed physicians begin thinking twice about continuing a military career based on compensation.

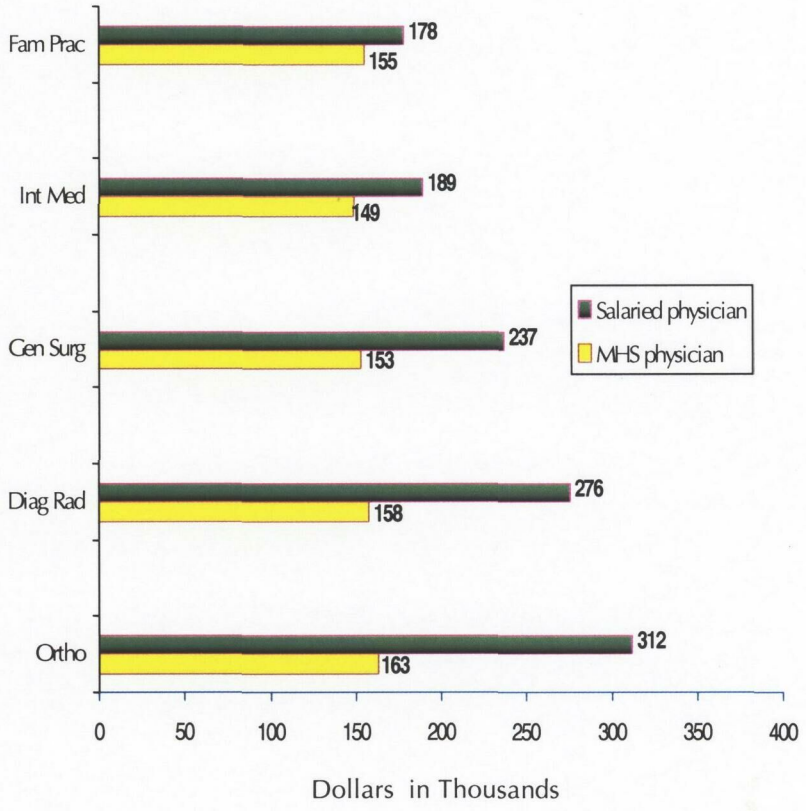
We selected the following 5 specialties to illustrate our methodology and findings: family practice, internal medicine, general surgery,

12. DoD changed its minimum terms of service and active duty obligation policy for medical corps officers in April 1988. Before 1988, in-house graduate medical education (GME) (i.e., residency and fellowships performed in military treatment facilities while on active duty) was obligation neutral, with only a 2-year minimum service requirement. Afterward, in-house GME incurred a year-for-year obligation served concurrently with any obligation for medical school subsidization).

13. For example, in the Air Force, about 40 percent of total AFHPSP accessions are deferred specialists.

diagnostic radiology, and orthopedic surgery. These 5 are representative of the 24 specialties we reviewed because they show how private-sector physician income varies by specialty.[14] We find that, for each of the physician specialties that we examined, private-sector physician compensation is higher than military compensation. Figure 1 shows, for example, that uniformed general surgeons make $153,000, while their private-sector salaried peers receive $237,000 at the end of 7 years of service—a 36-percent military-civilian physician pay gap.[15]

Figure 1. Current annual compensation comparison at end of 7 years of service (uniformed service vs. private-sector median physician)



14. Results for the 24 specialties are contained in August 2000 and February 2001 CNA documents (CIM D0002053.A1 and CIM D0003361.A1).

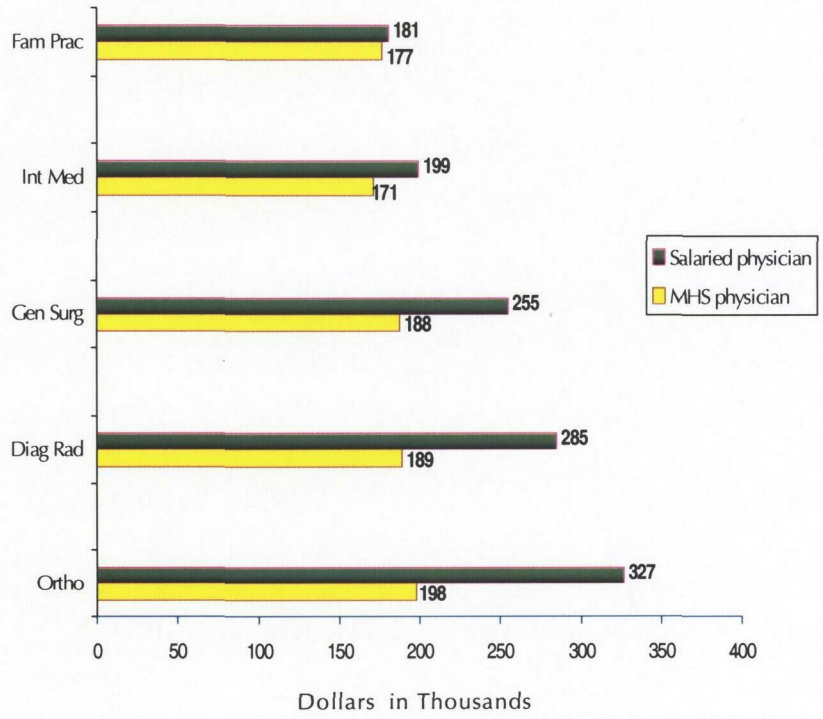
15. Military-civilian pay gap equals the absolute value of (MC/CC) - 1, where MC = military compensation and CC = civilian compensation.

It is also interesting to note that compensation varies much more by specialty in the private sector than it does in the MHS. For example, a family practitioner in the private sector makes $134,000 less than his or her peer practicing orthopedic surgery in the same sector, whereas the difference in compensation between a family practitioner and an orthopedic surgeon in the military is only $8,000.

Results—current cash compensation (at 12 years of service)

Let's now look at the same five specialties at the 12-YOS juncture. Again we find that civilian compensation is greater than military compensation for each specialty, but the gap is smaller than at 7 YOS. Figure 2 shows that uniformed general surgeons make $188,000, while their private-sector salaried peers receive $255,000 at the 12-YOS juncture. The military-civilian physician pay gap for this specialty has narrowed from 36 percent at 7 YOS to 26 percent.

Figure 2. Current annual compensation comparison at end of 12 years of service (uniformed service vs. private-sector median physician)



The driving factors that reduce the military-civilian physician pay gap are the assumptions that correctly model the most typical uniformed physician career profile. These assumptions include the following: the uniformed specialist has 12 years of military service, has just been promoted to 0-5, and has taken advantage of all available special pay programs (including board certification). When we contrast the uniformed general surgeon's total cash compensation at the 7- and 12-YOS career points, we find that their income has risen by almost 23 percent, from $153,000 to $188,000. The $188,000 compensation for an MHS general surgeon with 12 YOS comprises:

- RMC (42 percent)
- Incentive special pay (14 percent)
- Additional special pay (8 percent)
- Multiyear special pay (6 percent)
- Variable special pay (5 percent)
- Board certification (2 percent)
- Benefits (23 percent).

When we contrast the private-sector general surgeons' total compensation at the 7- and 12-YOS career points, we show that their median income has risen only 7 percent, from $237,000 to $254,000. The $254,000 compensation for an equivalent private-sector general surgeon is composed of:

- Base salary and incentive pays (75 percent)
- Benefits (25 percent).

It is again interesting to note that compensation varies much more by specialty in the private sector than it does in the MHS. For example, a family practitioner in the private sector makes $146,000 less than his or her peer practicing orthopedic surgery in the same sector, while there is only a $21,000 difference in compensation between a family practitioner and an orthopedic surgeon in the military.

Has the military-civilian physician pay gap widened in the last decade (at 7 years of service)?

Based on the methodology described above and performing these calculations for all specialties, our model reveals that a military-civilian physician pay gap exists for each of our specialties ranging from 13 to 63 percent at the 7 year-of-service juncture, and that the pay gap for 19 of the 24 specialties reported equals or exceeds 30 percent. Our results are also congruent with findings reported by the AMA [9] that

> surgeons and non-surgeons who do mostly procedures typically have higher incomes than primary care specialists, who provide mainly cognitive, or evaluation and management-type services.

By comparing our year 2000 findings to a 1991 Hay Group report comparing total compensation (cash and benefits) for physicians pursuing a uniformed versus a private-sector career track [10], we find that the pay gap has widened for all specialties, ranging from 3 to 25 percentage points at the 7-YOS juncture depending on specialty.[16] In figure 3, we display specialties predominately involved with "evaluation and management-type services" and compare military-civilian physician pay gaps (in percentages) between 1991 and 2000. Our analysis shows that, of these selected specialties, the pay gap has increased the most for emergency medicine and internal medicine, by 21 and 14 percentage points, respectively. Family practice and occupational medicine incurred the smallest increase in this grouping (5 and 7 percentage points, respectively).

Let's now look at figure 4, which displays those specialties, both surgeons and non-surgeons, who predominantly "do mostly procedures" and compare their military-civilian physician pay gap movement in the last decade. We see that the pay gaps are much larger for these specialties across the board and that the pay gap has widened for most of these specialties during 1990s at the 7-YOS juncture. Our data reveal that the gap has widened significantly for dermatology and

16. Although we have physician compensation calculations for 24 specialties, two specialties (plastic surgery and therapeutic radiology) were not contained in the 1991 report, so we did not have data to compare whether their pay gap had risen or fallen in the last 10 years.

neurosurgery, at 25 and 22 percentage points, respectively. Although the pay gap has widened by only 4 percentage points for orthopedic surgery and anesthesiology, they remain two of the specialties with the highest overall pay gap.

Figure 3. 1991 vs. 2000 pay gap comparisons at 7 YOS (uniformed service vs. private-sector median physician selected specialties that focus on evaluation and management)

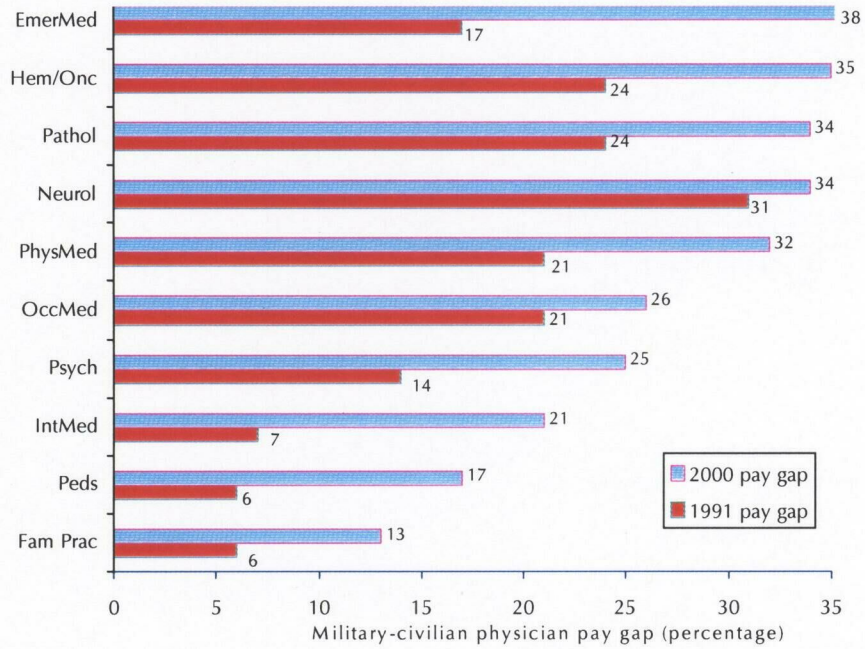
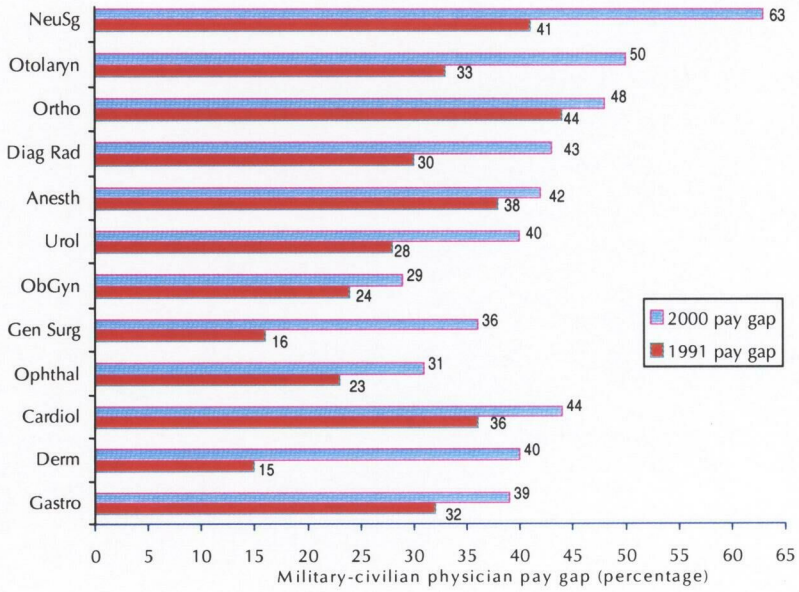


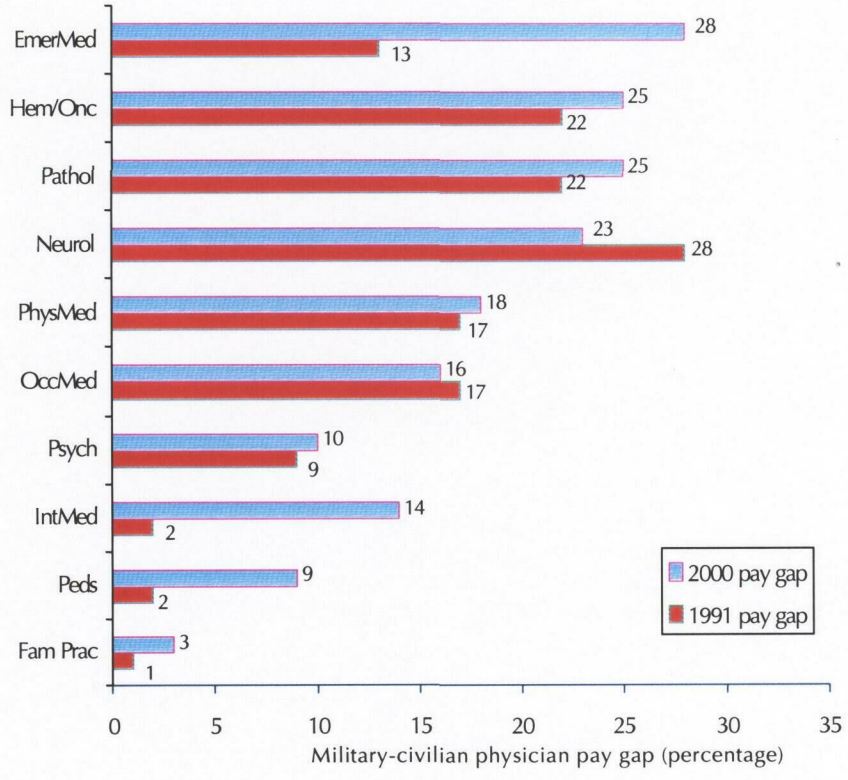
Figure 4. 1991 vs. 2000 pay gap comparisons at 7 YOS (uniformed service vs. private-sector median physician selected specialties that focus on procedures)



Has the military-civilian physician pay gap widened in the last decade (at 12 years of service)?

We will now contrast our compensation findings to the 1991 report at 12 years of service to reveal what the current military-civilian physician pay gap is and how it has changed over the last decade. Our model reveals that the military-civilian physician pay gap narrows with military progression. For some specialties, however, a significant gap still exists. When we look at the current compensation for all reported specialties at the 12-year-of-service juncture, the uniformed services range from 3 percent below the median private sector for family practice to 55 percent below for neurosurgery. We find that the military-civilian physician pay gap for 11 of the 24 specialties reported equals or exceeds 30 percent. Figure 5 shows that the pay gap has widened the most for emergency medicine and internal medicine by 15 and 12 percentage points, respectively.

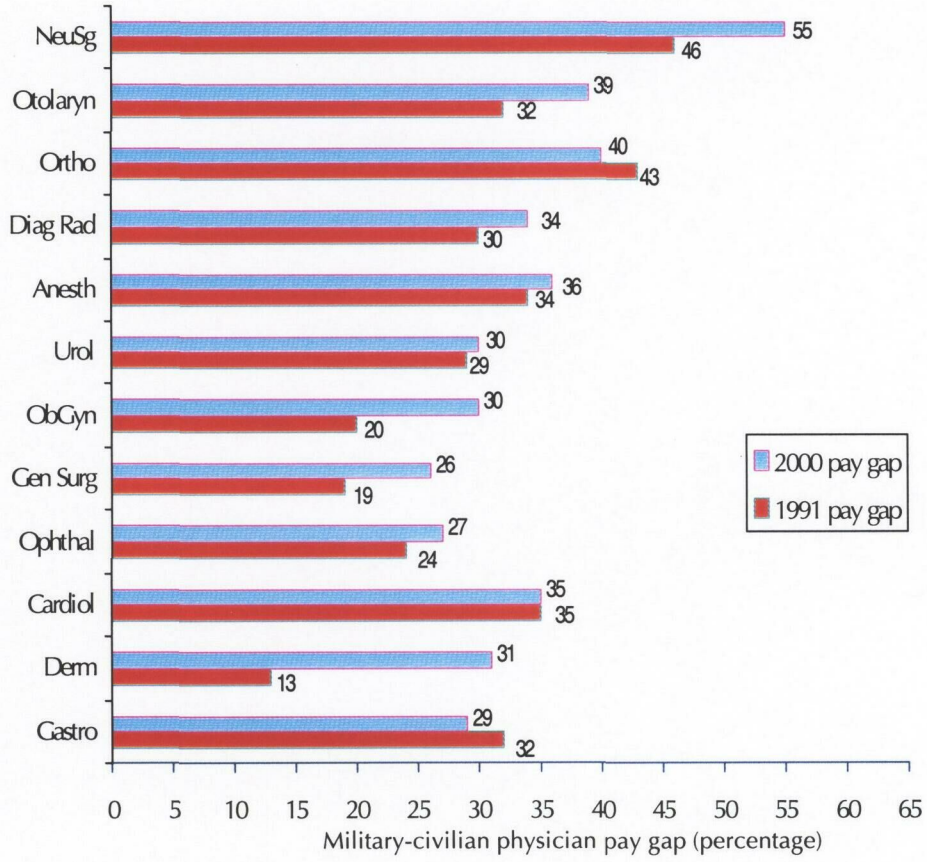
Figure 5. 1991 vs. 2000 pay gap comparisons at 12 YOS (uniformed service vs. private-sector median physician selected specialties that focus on evaluation and management)



With the exception of neurology, the pay gap at 12 YOS has increased over the last ten 10 years but not to the extent seen at the end of 7 years of service. However, this snapshot is extremely important because the vast majority of our uniformed specialists have satisfied their active duty obligation and are free to leave the military.

Let's turn our attention to the remaining specialties in figure 6.

Figure 6. 1991 vs. 2000 pay gap comparisons at 12 YOS (uniformed service vs. private-sector median physician selected specialties that focus on procedures)



Once again, we see that the pay gaps are generally larger for these specialties than for those displayed in figure 5. We also find that the pay gap has widened slightly for most of these specialties during 1990s, with the exception of cardiology, orthopedic surgery, and gastroenterology. Our data reveal that the gap has widened significantly for dermatology and obstetrics and gynecology, by 18 and 10

percentage points, respectively. Although the pay gap has remained constant or actually decreased for cardiology, orthopedic surgery and gastroenterology, they remain three of the specialties with large pay gaps.[17]

Present value of future compensation and benefits (until age 65)

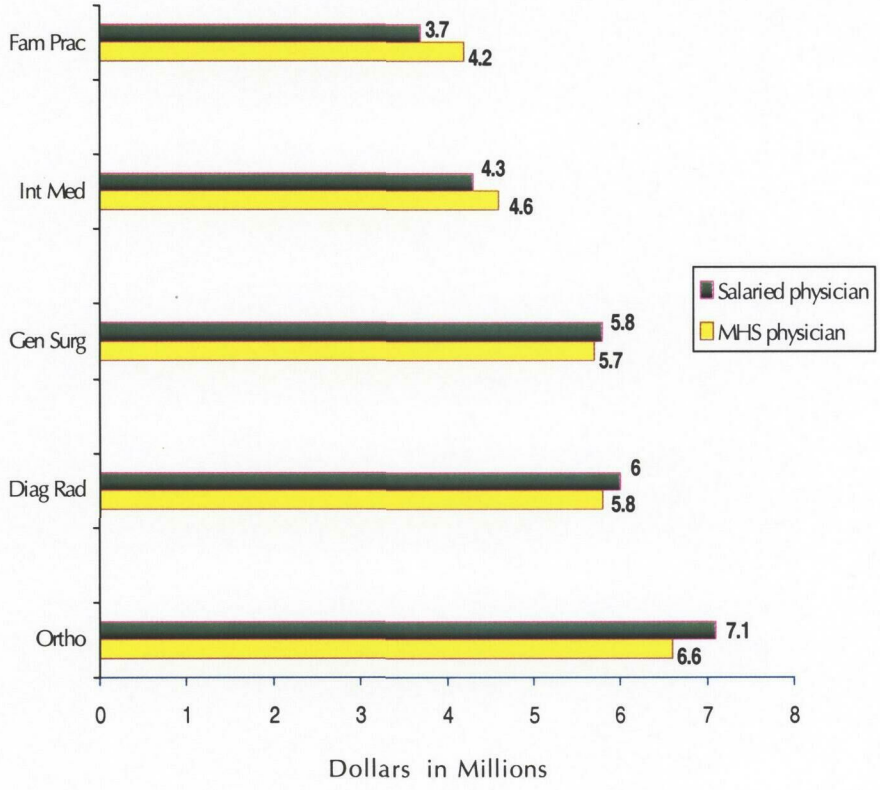
From an economic perspective, when faced with a decision to continue with a particular career or choose another path, one should compare the stream of future cash and benefits of each option rather than look at a single point in time. The second type of physician compensation comparison in our study is the present-value comparison, which indicates the value of a future stream of payments if it were paid in one lump sum *today*. Figure 7 displays the same five specialties we reviewed earlier. We look at the present value (PV) of the stream of future cash and benefits that a uniformed physician could expect to receive by staying on active duty until 20 years of completed service (from the 12-year-of-service juncture), retiring, and then practicing in the private sector until age 65 versus separating now and working in the private sector until age 65.

What we find in this PV analysis is that the pay gap narrows significantly as a result of the military retirement pay, which does not begin until the 20-year-of-service point. Unlike uniformed physicians, who have a 20-year vesting period for retirement benefits, retirement vesting for civilian physicians will be immediate or a maximum of 5 years (as mandated by ERISA). This 2-year vesting policy significantly increases the role that a uniformed individual's personal risk assessment will make in a stay-leave decision based on a PV compensation comparison. In addition, PV calculations are sensitive to assumptions regarding interest rates, inflation, and wage growth. Because the

17. When we compare the uniformed versus private-sector physician compensation at 17 years of service, we find that the civilian compensation is greater than military compensation for each specialty, except family practice, but the gap is smaller than what we found at the 12-year-of-service juncture. Results for each of the 24 specialties are contained in CIM D0002053.A1 and CIM D0003361.A1).

military retirement is a defined benefit plan and civilian physician's typically are offered a defined contribution plan, the retirement benefit that one would receive in the civilian sector is much more sensitive to interest rate assumptions than is the military benefit. As a result, PV comparisons of military and civilian compensation packages are much more sensitive to interest rate assumptions than PV comparisons within like sectors.

Figure 7. *Present value of total compensation (at 12 years of completed service)* (uniformed service vs. private-sector median physician-selected specialties)



For some specialties, such as family practice and internal medicine, the PV comparison indicates that it is actually more lucrative to stay in the military for the full 20 years and then pursue a private-sector career path. For other uniformed specialties, such as orthopedic surgery and diagnostic radiology, the PV comparison shows that it is still more lucrative for them to separate from the military at the 12-YOS juncture and work in the private sector as a salaried employee until

age 65 than to stay in the military until 20 years of service, retire, and then work in the private sector until age 65.[18]

Private-sector (salaried) physician compensation strategies

During phase II of this study, we will evaluate the effect of military-civilian physician pay gaps on retention. Regardless of whether these military-civilian physician pay gaps contribute to accession and retention difficulties, it is important for DoD to understand the employers they are competing against for physicians. Not only is there a pay gap that favors the civilian sector, but physician employers are able to tailor benefit packages for particular specialties and structure cash compensation that is designed to elicit or reward specific behavior.[19] Appendix B provides a more detailed summary of these physician-employer pay practices.

Benefits

To illustrate this point, we compare the benefits for five specialties at the 7-year-of-service juncture, and find that the imputed value of an MHS physician's benefits is about $36,000 (which is not tailored to his or her speciality), but represents DoD's employer costs for housing, pension, and health care for pay grade 0-4. When we compare the imputed value of the employer benefits in the private sector, we find

18. We also performed a PV sensitivity analysis for three specialties: family practice diagnostic radiology, and orthopedic surgery to evaluate how the comparisons of total compensation would be affected over time if private practice terminated at age 55 instead of at age 65. The question we wanted to answer was whether the length of the private-sector career would influence the economic decision about whether to stay or leave at each of the three decision points. Our overall assessment, based on the three specialties that we examined, is that terminating practice at age 55 instead of age 65 does not affect the direction of the economic decisions that can be drawn from the original analysis.

19. The following paragraphs summarize pay practices recorded for the 91 health care organizations participating in Hay Group's Physician Compensation Survey for 1999, and, where there are consistent data, provide comparisons with results from the 1996 survey. Please see appendix B for more detailed description of these data.

significant variation, by specialty, because employers tailor benefits to help attract and retain the specialists they desire. The average private-sector benefit value for the five specialists at this career point is family practice ($45,000), internal medicine ($48,000), general surgery ($54,000), diagnostic radiology ($68,000), and orthopedic surgery ($76,000).

Incentive/bonus pays

Successful health care organizations have developed pay and performance management programs that represent their new cultures and the desired behavior from its workforce. They have created a compensation philosophy that reflects their values and business strategies, and a flexible job evaluation system that is indicative of the new structures, teams, and work processes. These employers have also communicated their expectations and organizational objectives to all employees.

The most common reasons for adopting new compensation plans are as follows:

- Encourage and reward improvements in productivity and quality
- Align pay with business results
- Focus attention on changing goals and/or performance
- Reduce the "entitlement" element of current pay increases
- Communicate new internal values to employees.

Important trends

Five trends are worth noting:

- In 1999, of the 91 physician-employer organizations surveyed, nearly 70 percent used incentive pays for physicians.
- Seven percent of surveyed organizations that did not have an incentive pay plan in 1999 indicated that they were considering implementing an incentive plan in the future.

- In both 1996 and 1999, incentive pays were most common in Health Maintenance Organizations (HMOs) and for-profit organizations.
- Performance of an organization/department and quality were the most commonly used measures in HMOs in 1999 for determining physician payouts.
- In 1999, 57 percent of a physician's incentive payout in hospital-based and group practice organizations was based on the physician's individual performance.

It helps DoD to be aware of the pay practices being used by private-sector physician employers because the MHS may be more likely to lose those physicians that believe that this type of compensation structure would benefit them more than the one the military uses. Our better understanding of the pay and incentive practices used by private-sector physician employers will also help us in our evaluation of DoD's medical officer special pay programs during phase III of our study.

Conclusions—physicians

We find that uniformed-civilian physician pay gaps exists and that they vary significantly by specialty. Moreover, for the majority of these specialties, the pay gap has widened over the last decade. We also know that pay gap narrows over the length of a uniformed physician's career and, in some cases, is eliminated when we look at completing a 20-year career through the PV comparison. Through our model, we can now compare stay-leave military decisions, at logical career junctures, to determine retention rates and the effect of pay on those decisions to stay or leave the military. Our analysis and findings of this relationship will be reported in phases II and III of this study.

We now turn our attention to compensation comparisons of other selected health care professionals.

Other health care professionals compensation

Background

Shortell and colleagues [11] write:

> New technology, changing demographics, a growing emphasis on providing care across the continuum, changes in the education of health care professionals, and new developments in professional licensure and certification result in a host of work force issues facing organized delivery systems.

Based on the demonstrated competency of non-physician health care professionals and economic incentives to substitute lower-priced, licensed professionals, traditional professional boundaries are being blurred as non-physicians are increasing their scope of practice, prescriptive privileges, and autonomy from physician supervision and are being reimbursed for those services by states and third-party payors [12]. The following trends are worth noting:

- Several health care professions, including optometrists, certified registered nurse anesthetists, clinical psychologists, physician assistants, nurse practitioners, and midwives are becoming "multi-skilled" and taking on expanding roles in health care delivery.
- These changes have dramatically affected the role of nursing as more care is provided outside the hospital and there is increasing pressure to distribute nursing assets to ambulatory care settings. For the nursing staff that remains in the hospital, they care for a very sick group of patients for a shorter period of time, and then must help coordinate care with post-hospital caregivers. Ambulatory care nurses must become proficient (normally through on-the-job-experiences) in phone triage, clinic management, and appointment scheduling.
- Pharmacists are beginning to move away from inpatient care toward working on cross-functional teams associated with

service lines that care for patients across the continuum. The continued proliferation of pharmacological agents to prevent and treat disease will only continue to expand the pharmacist's role in health care [12].

- Although the management of dental disease dominates the practice, dentists are also spending more time on preventive and diagnostic services in caries management, reflecting a change in disease patterns.

The MHS continues to mirror the private sector as it has expanded the roles, responsibilities, and work settings of its non-physician work force. Like their civilian counterparts, these uniformed health care professionals play a vital role in the delivery of the peacetime benefit mission; unlike their civilian counterparts, many have an essential role in meeting DoD's day-to-day and contingency readiness requirements. And like uniformed physicians, these health care professionals have skills that are immediately transferable to the private sector. Our study will now focus on the *cash* compensation comparisons between uniformed and private-sector health care professionals for the following specialties:[20]

- Dentists
- Pharmacists
- Optometrists
- Clinical Psychologists
- Physician Assistants
- Registered Nurses
  - — Certified Registered Nurse Anesthetists
  - — Other Advanced Practice Nurses

20. The uniformed-civilian compensation comparisons for "other" health care professionals does not include benefits. Robust data sources, that included benefits, were unavailable and most self-employed professionals do not routinely report benefit information. We do provide a brief description of benefits offered for each specialty throughout the report. In addition, we do not provide present-value calculations for other health care professionals because of the unavailability of non-sectored income data.

Methodology

Civilian compensation survey data, for many of these professionals, are not collected for salaried (employer-based) workers because of cost and the fact that many of these health care professionals are self-employed (or in private practice). Moreover, robust compensation data for these health care professionals are not routinely collected and sectored by years of practice, nor do they include benefit data with the level of specificity that we had for physicians. Therefore, we had to develop a different methodology, from the approach we used for physicians, to conduct compensation comparisons between these selected uniformed and private-sector health care professionals.

For non-physician health care professionals, we developed a model that portrayed the "most typical" or ***predominant MHS career profile*** for each specialty.[21] After consulting with military subject matter experts, we developed a framework that described the predominant tenets that might affect each speciality's compensation. These elements are:

- Minimum educational accession standard
- Average age upon entry into the profession
- Average grade upon accession
- Average years of service upon accession
- Licensing requirement for accession
- Predominant accession source (and the average number of accessions)
- Predominant work setting
- Most typical case mix
- Most typical career path.

The process just described was crucial to our model for four reasons. First, we needed to know whether major differences existed between

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21. We gratefully acknowledge the assistance of many representatives from TMA, Health Affairs, and the individual services who gave us invaluable information about their communities "most typical" career profiles.

services. Next, we needed to understand these basic tenets so we could make fair and accurate compensation comparisons with their private-sector counterparts. Third, and most important, the predominant MHS career profile that we built for each specialty allowed us to establish cash compensation tables so we could calculate the maximum amount the military could pay these professionals and identify the factors driving that compensation.[22] Fourth, based on these data, we established logical career junctures to make uniformed-civilian compensation comparisons.

We then compared the predominant tenets for each specialty with their private-sector counterparts.[23] Although the minimum education standard and licensure requirements naturally vary among the MHS health care professionals being reviewed, each MHS specialty meets or exceeds the educational requirement of the private-sector counterparts. Appendix C provides a side-by-side comparison of these tenets between the MHS and private sector for each of the eight health care professions reviewed.

Although beyond the scope of this study, we have included demographic data, when available, for each of the eight professions

22. Military cash compensation includes regular military compensation (RMC) as of July 2000. RMC consists of basic pay, basic allowance for housing, basic allowance for subsistence, and the tax advantage accruing to the non-taxable nature of housing and subsistence allowances. We also include all medical special pays (including board certification) offered to these specialties and assume that each specialist will take advantage of all available special programs when eligible. Lastly, we assume due course promotion for these specialties consistent with DoD guidelines. Appendix C provides a detailed display of all cash compensation calculations for each specialty.

23. For each of the eight MHS health care professionals reviewed in this study, the initial focus of first-tour specialists is to solidify their clinical skills. However, as their military careers progress, all of these professions report having to assume additional collateral and administrative duties in the areas of financial and personnel management, leadership, and military functions, in addition to continuing to hone their clinical skills. Most military subject matter experts we spoke with feel that their specialists will not remain competitive for promotions if they do not assume duties outside their clinical professions.

reviewed. One major trend noted is the increasing percentage of women in these health care professions. The dentistry, optometry, pharmacy, and physician assistant schools are reporting significant increases in women graduates from a decade ago. Conversely, applicants to registered nursing schools, which are predominantly women, are declining, which is partly attributed to the expanding job opportunities in other professions. For the MHS, this gender shift may decrease its ability to attract and retain certain specialists because women might be less likely to join and then remain in the military.

Civilian income data sources rarely report compensation by years of practice (YOP). The vast majority of sources provide salary data by mean, median, and percentiles. Therefore to make uniformed versus private-sector compensation comparisons, we used the reported civilian percentiles as "proxies" for the *cash compensation* of civilian health care professionals at various career junctures (or YOP bands). For example, we averaged the total cash compensation for years 1-5 for the MHS specialist (labeled it entry level) and compared this to the average civilian cash compensation at the 25th percentile, for the same health care professional working in the private sector. At the senior midpoint level, we averaged the total cash compensation for years 11-15 for the MHS specialist and compared this to the average civilian cash compensation at the 75th percentile. Below are the YOP bandwidth comparisons used in our analysis.:

MHS YOP	Level	Civilian equivalent
1-5	Entry	25th percentile
6-10	Junior midpoint	50th percentile
11-15	Senior midpoint	75th percentile

The underlying assumption of this methodology is that the variation in civilian health care professionals' salaries is driven primarily by years of practice. Weaknesses to this approach include the inability to separate from the data influences of regional variation, years in the profession, or significant trends associated with changes in starting salaries. Despite these weaknesses, we believe that private-sector salaries by percentile (25th, 50th, 75th) present a reasonable range within which it is possible to make valid comparisons to the uniformed health services' compensation. Moreover, limited civilian income data by years of experience suggest an upward sloping wage

tenure profile that supports our methodology. Appendix C provides a detailed account of the uniformed-civilian *cash* (excluding benefits) compensation comparisons, methodology, salary sources, and findings for each specialty.

Civilian income data survey sources

The following compensation surveys were used, as appropriate for each specialty, to derive civilian income profiles.[24] Moreover, a civilian literature review was conducted to help us better understand recent trends for the specialties being reviewed [13–93].

- RSM McGladrey, Inc. American Medical Practice Assoc. "2000 Medical Group Compensation and Productivity Survey."
- Medical Group Management Association (MGMA). "2000 Compensation and Productivity Survey." Englewood, CO, 2000.
- Warren Surveys. "The HMO Survey Spring 2000." Rockford, IL.
- Hospital and Healthcare Compensation Service. "2000 Physician Salary Survey Report."
- Bureau of Labor and Statistics: Occupational Outlook Handbook: 2000-01.
- American Psychological Association (APA): 1999 Salary Survey. www.apa.org.
- APA: 1997 Doctorate Employment Survey: 1998 Salaries.
- Association of Nurse Anesthetists (AANA): CY 2000 Member Survey.
- American Academy of Physician Assistants (AAPA): 2000 Census data. www.aapa.org.

24. Income data before 2000 were adjusted by calculating the annual average of the Bureau of Labor and Statistics: *Employment Cost Indexes for the Civilian Wages and Salaries for Hospitals and for Health Services.* Based on this methodology, 1997, 1998, and 1999 survey data were increased by 2.55, 2.75, and 3.75 percent, respectively (as warranted).

- American Optometric Association: 1999 Economic Survey. www.aoanet.org.
- American Dental Association: "The 1999 Survey of Dental Practice: Income from Private Dentistry."
- Pharmacy OneSource, Inc., and Pharmacy Week. Fall 2000 Internet Salary Report. www.pharmacyweek.com.
- Drug Topics/Hospital Pharmacists 1999 Salary Report. wwwqa.medec.com.
- *RN Magazine.* 1999 Earnings Survey: Bedside Care is Paying Off. www.rnmag.com.[25]
- ADVANCE 1999 National Survey of Nurse Practitioners. www.advancefornp.com.
- Nurse Practitioner (NP) Central: Salary Summary 1999 data. www.nurse.net.

Results—current cash compensation (Dentist)

In order to practice dentistry, one must possess a Doctor of Dental Surgery (D.D.S.) or Doctor of Dental Medicine (D.M.D.) degree from a dental school accredited by the American Dental Association (ADA), and successfully complete parts 1 and 2 of the National Board of Dental Examination. The MHS and individual states require dentists to have a current unrestricted state license. [26]

25. Health Resources Services Administration (HRSA), Division of Nursing, 2000 income data have been requested but were not available at the time of this report.

26. For each of the eight health professions reviewed, both the private sector and MHS require these professionals to possess a valid, unrestricted state license (or be nationally certified). Contingent on the accession program, oversight, and working environment, the MHS may waive the licensing or certification requirement for 1-2 years, depending on the specialty.

The MHS has historically accessed about 344 dentists per year and the predominant accession sources are the AFHPSP[27] (students are typically subsidized for 3-4 years of dental school with a commensurate active duty obligation), followed by direct procurements who receive a $30,000 accession bonus (with a commensurate 4-year active duty obligation).[28] Typically, a newly accessed MHS dentist will attend a one-year advanced education in general dentistry (AEGD) program, and then be assigned to an operational unit or fixed treatment facility and practice as a general dentist. Following the second tour of duty, most MHS dentists will attend a specialty residency program, with a commensurate 3-year active duty obligation. The case mix for MHS dentists resembles their civilian counterparts, but they treat relatively few children or older patients on a routine basis.

According to the ADA, in 1999, there were about 4,000 dental graduates, of which 38 percent were women. Over one-third of those graduating dentists entered into a specialty program immediately after graduation. The vast majority of dentists practicing in the private sector, 92 percent, are self-employed.

We found two major trends affecting the MHS's ability to attract and retain dentists. First, according to the American Dental Education Association (ADEA) survey, the 1999 average dental school educational debt was about $105,000, an increase of 7.3 percent over 1998. One of the trends reported in this survey is "as school debt increases, students are choosing to work in private practice while the choice to work in government service decreases." Second, the December 2000 *Journal of the American Dental Association* reports that in the next 20 years the number of dentists retiring will grow faster than the number

27. Army and Air Force typically subsidize students for 3 years of dental school, while the Navy most typically subsidizes students for 4 years, generating a 3- and 4-year active duty obligation, respectively. AFHPSP subsidization includes tuition, book, fees, and a monthly stipend. DoD's average annual outlay, for each subsidized year of an AFHPSP accession, is about $38,000.

28. Applicants are only eligible for the $30,000 accession bonus if they have not received any other type of subsidization.

of dental graduates.[29] This same trend could possibly exert a downward pressure on the price of dental practices, as the supply of available dental practices increases, because of more dentists retiring. Consequently, as MHS dentists consider career options, they may find buying a civilian practice more affordable than in the past.

In figure 8, we compare the cash compensation between MHS and civilian dentists at three critical military career junctures.

Figure 8. Current average cash compensation comparison at three career junctures (uniformed service vs. private-sector dentist)

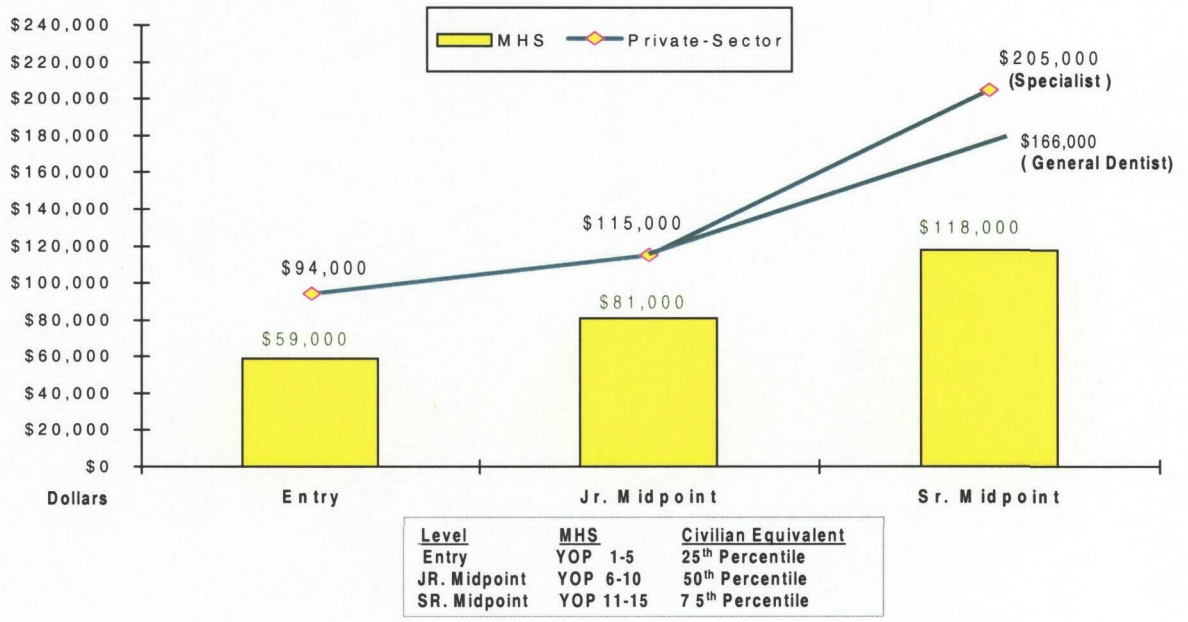


Figure 8 reveals that a significant uniformed-civilian dentist pay gap exists at all career junctures, ranging from 37 percent at the entry level to 42 percent at the senior midpoint when compared to dentist specialist salaries. The data suggest that the MHS will become more reliant on the AFHPSP to meet its total dentist accession requirements. The $30,000 accession bonus may not be effective in attracting

29. Each of the services is concerned that many of its senior dentists are nearing statutory retirement. We will analyze this potential problem during phase II of our study.

new applicants given the high dental school debt load, entry-level pay gap, and projected work force shortages.[30]

Because the vast majority of civilian dentists are in private practice, there is little information on benefits for this specialty.

Results—current cash compensation (Pharmacist)

The current minimum educational requirement to practice as a pharmacist is a Bachelor of Science (BS) pharmacy degree, accredited by the American Council on Pharmaceutical Education (ACPE). However, all accredited pharmacy schools are expected to graduate their last BS degree students in 2005. According to a recent issue of the *Journal of the American Pharmaceutical Association*, of America's 81 schools of pharmacy, all but 11 made the transition to "doctor of pharmacy" (PharmD) degrees in the 1990s. Therefore, the predominant degree of MHS and civilian pharmacists entering into the workforce will be a graduate degree, which is a 4-year professional degree with a minimum of 2 years' undergraduate course work, also accredited by the ACPE.

The MHS typically accesses about 71 pharmacists per year and the predominant accession source is direct accession. Because of the service's inability to directly procure the required number of accessions, in FY01 Congress authorized DoD to offer a $30,000 accession bonus for this speciality. At this time, however, the Army and Air Force have only been able to appropriate $10,000 for these bonuses, and the Navy is not currently offering any accession bonus.

Typically, a newly accessed MHS pharmacist will be assigned to inpatient, outpatient, supply, and clinical pharmacy duties within a major fixed medical treatment facility (MTF). Second-tour assignments typically include serving as the lone pharmacist in an isolated MTF or an overseas hospital. The role of MHS pharmacists is expanding into non-traditional areas, such as disease management clinics for asthma and diabetes patients, and stand-alone medication-refill clinics. The

30. The Air Force FY-01 direct procurement goal for dentists is 120, and they had only accessed about 20 dentists at the time of this report.

vast expansion of pharmaceutical interventions means that these specialists work closely with providers, from all specialties, to ensure that the most appropriate and economical medications are administered.

About 60 percent of private-sector pharmacists work in community pharmacies, either independently owned or part of a drug chain, grocery store, or mass merchandiser. Most community pharmacists are salaried employees. A 2000 Pharmacy Workforce study, completed by HRSA, projected pharmacy workforce shortages due to the:

- Lower number of pharmacy graduates
- Expansion of chain stores requiring additional pharmacists
- Overall increase in utilization of pharmacists.

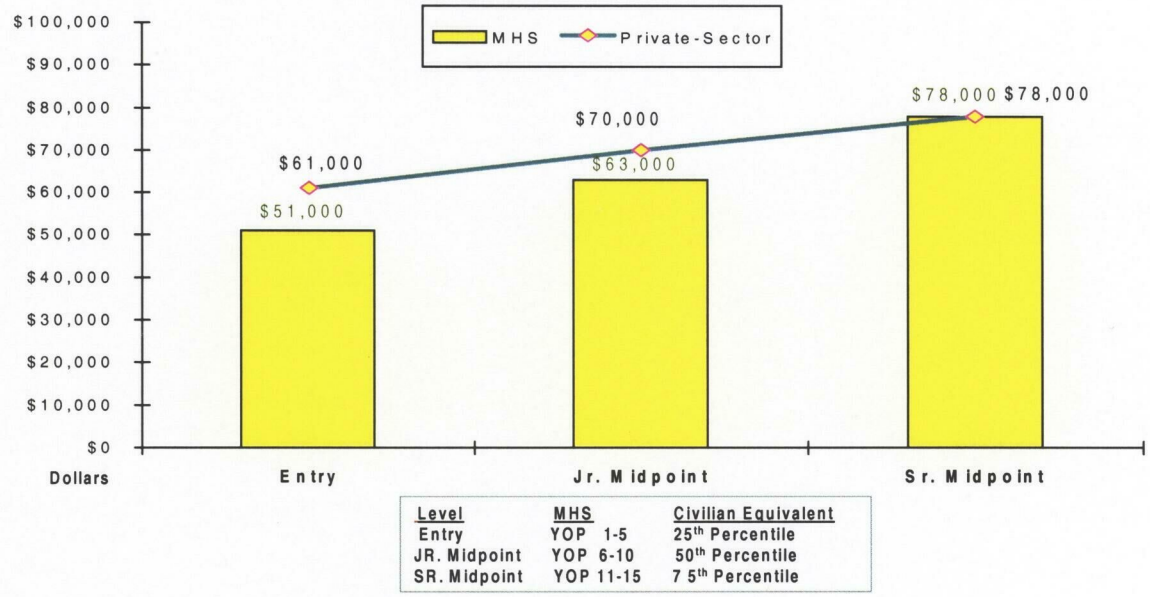
In addition, women made up 63 percent of the 1999 pharmacy graduating class and this percentage is expected to rise for future graduating classes.

Figure 9 compares the average cash compensation between uniformed and civilian pharmacists at three career bandwidths. We show a $10,000 (or 16-percent) military-civilian pharmacy pay gap at the entry level, which narrows to 9 percent at the junior midpoint level; by the senior midpoint, parity is achieved between the two sectors.

Discussions with representatives from professional pharmacy associations reveal that starting salaries have been on the rise since 1999 as a result of increased demand for these specialists. Because the majority of the income data available is pre-1999, this trend may not be fully accounted for in the existing income survey. The National Association of Colleges and Employers reports that starting pharmacy salaries today average $65,000. *Pharmacy OneSource* (an internet self-report survey) indicates that new graduates receive a median income of $70,000, and several civilian employers are offering signing bonuses as well. Although we are confident that we have accurately captured and portrayed available civilian pharmacy income data (surveys), we do feel that our estimated military-civilian pay gap, at the entry level, may be more dramatic than the comparisons reveal. Also, the industry has not had time to fully capture the income effect of the educational requirement change from the BS degree to the PharmD

degree (graduate degree) which should induce upward pressure in starting salaries. We feel that the recent congressional action, authorizing DoD to offer $30,000 pharmacy accession bonuses, is prudent based on the various transitions occurring within this specialty.

Figure 9. Current average cash compensation comparison at three career junctures (uniformed service vs. private-sector pharmacist)



Because a significant share of pharmacists working in the civilian sector are salaried employees, we were able to glean some benefit data for this specialty. According to a 1999 Drug Topics Survey report, most salaried pharmacists receive paid vacation, holidays, life and health insurance, and 401(k) retirement plans. Pharmacists who work for independent stores, however, did not report as many benefits. Only 28 percent had 401(k) plans, 33 percent had pension plans, and 59 percent had paid sick days. However, more independent pharmacists (39 percent) reported that they had flextime.

Civilian pharmacists averaged 6 holidays per year and 15 days of paid vacations. Less than half of the respondents indicated that their

employers reimbursed them for continuing education or professional meetings. Other income that was mentioned but not widespread included mileage allowance, moving expenses, stock options, licensure fees, on-call pay, and car insurance.

The calculated value of military benefits (i.e., the value based on imputed rather than actual costs) provided by DoD in its role as the employer to an active duty 0-3 officer is about $34,000 and includes pension, life insurance, health care, vacation, and the like. Unfortunately, the military is currently unable to tailor its benefit packages to particular specialties—it's a one-size-fits-all model. Consequently, some professionals, particularly junior personnel, may not place a high value on the benefits that the employer (DoD) pays a lot to provide.

Results—current cash compensation (Optometrist)

The current minimum educational requirement to practice as an optometrist is a Doctor of Optometry (O.D.) degree accredited by the Council on Optometric Education of the American Optometric Association. Based on this educational requirement and program length, an MHS optometrist's paygrade upon entering active duty is 0-3, which is also true for physicians, dentists, clinical psychologists, and pharmacists (possessing a PharmD degree). [31]

The MHS typically accesses about 35 optometrists per year and the predominant accession source is AFHPSP, varying in subsidization length from 2 to 4 years. DoD reinstated the AFHPSP for optometry in the early 1990s to counter the MHS's chronic inability to meet its accession and endstrength requirements for this specialty. According to the American Optometric Association (AOA):

- In 1999, 1,316 optometry students received O.D. degrees, a slight increase from 1,237 degrees awarded in 1998
- Women made up 51 percent of the 1999 O.D. graduating class

31. *Entry grade credit* is granted these specialties based on time spent in their professional training, but these professionals do *not* receive *constructive grade credit* (years of commissioned service) toward retirement.

- Average O.D. student educational debt load has doubled in the last decade, from $49,000 in 1990 to over $100,000 in 2000.

Most first-tour MHS optometrists will be assigned to a multi-provider clinic. Follow-on assignments include overseas tours and serving as a division or department head at MTF. The case mix for MHS optometrists includes all age groups.

The 1999 AOA Economic Survey reports the following for civilian optometrists:

- 65 percent work in private practice
- 19 percent are involved with optical chains and superstores
- 7 percent work with HMOs/hospitals/clinics
- 7 percent are employed by ophthalmologist or optometrist
- 2 percent are government/other.

Let's now compare the cash compensation between MHS and civilian optometrists at three MHS YOP bandwidths (figure 10).

Figure 10. Current average cash compensation comparison at three career junctures (uniformed service vs. private-sector optometrist)

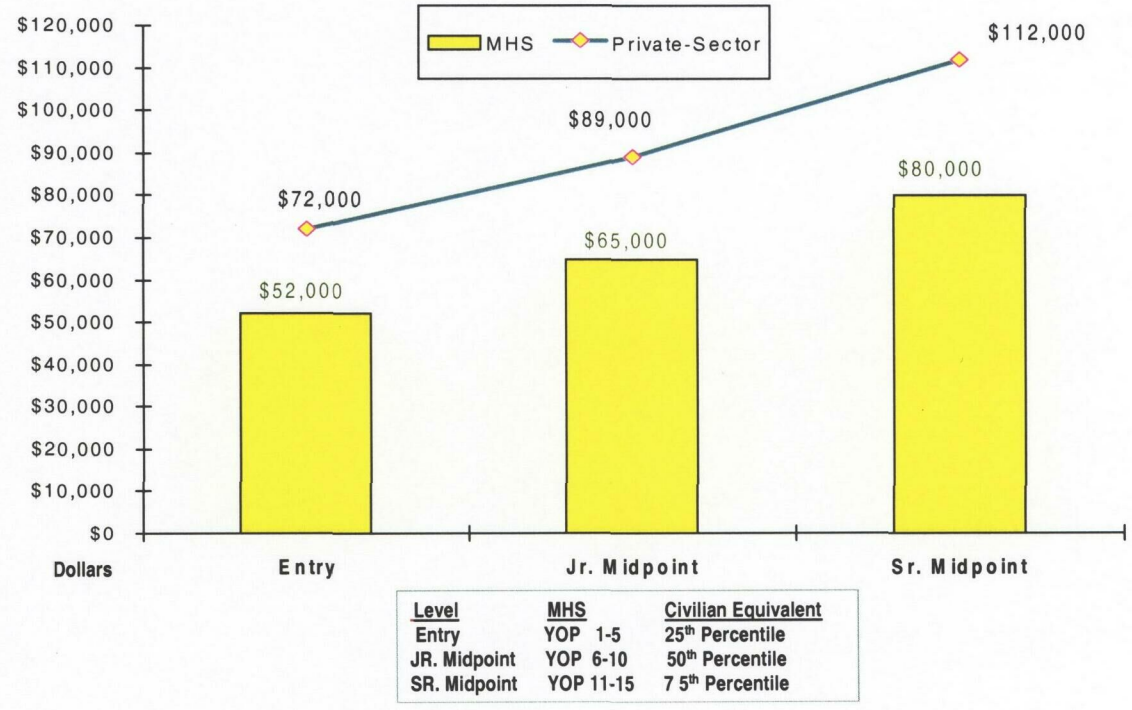


Figure 10 reveals that a significant pay gap for uniformed versus civilian optometrists exists at all career junctures, and the gap stays close to 28 percent throughout all career points. Based on these pay gaps and the high student debt load, we project that the MHS will become increasingly reliant on 3- and 4- year AFHPSP quotas to meet its total accession requirements for this specialty.

Because of the large percentage of optometrists working in private practice, we have no substantial information to report on benefits.

Results—current cash compensation (Clinical Psychologist)

To practice as a clinical psychologist, one must possess a doctorate in clinical psychology (either a Ph.D. or a PsyD.) accredited by the American Psychological Association (APA). Pyschologists in independent practice, or those who offer any type of patient care (including clinical psychologists) must meet the certification or licensing requirements in all states and the District of Columbia. Clinical and counseling psychologists usually require a doctorate in psychology, completion of an approved internship, and 1 to 2 years of professional experience. In addition, some states require that applicants pass an examination.

The MHS has historically accessed about 53 active duty clinical psychologists per year. The Air Force and Navy rely on direct accessions, with a guaranteed 1-year-clinical-internship program (CIP) for applicants. The Army typically meets about 60 percent of its total accession requirement through AFHPSP and the remainder through direct procurement CIP applicants. The typical CIP accession is required to serve 3 years on active duty, following completion of the intern year. As a result of the reported quality of each of the services' CIPs and the fact that the uniformed compensation during the intern year is higher than the civilian sector pays, the MHS is currently meeting its clinical psychology accession requirements. The Army reports good

success in retaining the students it has subsidized through AFHPSP, whereas the Navy and Air Force report losing several officers when their initial active duty obligation is satisfied.

Most first-tour clinical psychologists are assigned to major MTFs with a core of more experienced specialists. Upon successful completion of their internship and licensing requirements, follow-on assignments are usually more independent in nature, often as the sole psychologist at clinics, deployable units, and smaller MTFs overseas or in remote locations.

APA sources report the following data for this specialty:

- In 1999, 2,664 (Ph.D. or PsyD.) new doctorates in clinical psychology were awarded.
- According to a 1997 APA graduate survey, 44 percent of clinical psychologists reported student debt exceeding $30,000.
- Over half of the civilian clinical psychologist workforce belongs to an individual or group psychological practice, followed by about one-fifth of the clinical psychologist workforce belonging to a medical group practice.

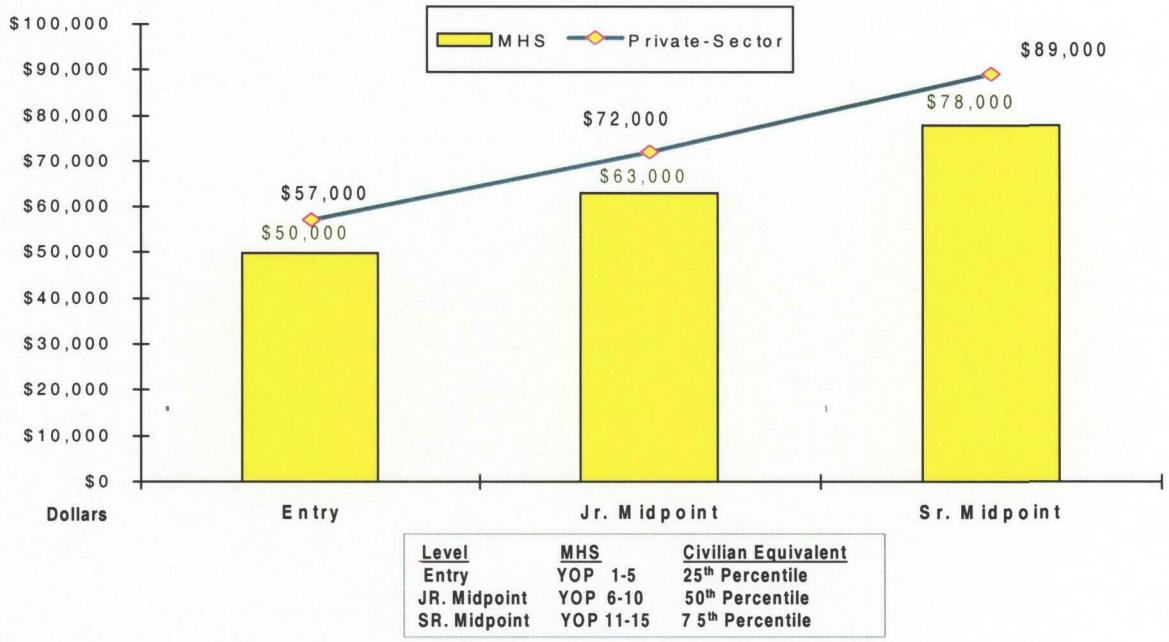
Let's now look at figure 11 and compare the average cash compensation of uniformed and civilian clinical psychologists. Figure 11 reveals about a 13-percent military-civilian clinical psychology pay gap at all junctures.

We want to make one last point about this specialty. The MHS has the ability to compensate several health care professionals for attaining board certification. We have appropriately assumed, in both our MHS physician and "other" health care professional compensation models, that eligible specialists receive board certification pay. However, for several specialties, the certification requirements vary widely by specialty. For instance, the American Board of Professional Psychology recognizes professional achievement by awarding certification, but this body's standards are more stringent than some professions:

- Must possess a doctorate in psychology
- 5 years of experience

- Professional recommendations
- Passing grade on an examination.

Figure 11. Current average cash compensation comparison at three career junctures (uniformed service vs. private-sector clinical psychologist)



The APA reports that less than 2.5 percent of its membership has attained certification and that MHS clinical psychologists do not routinely complete this milestone, even though DoD has provided a small financial incentive. If we assume that MHS clinical psychologists "never" attain board certification, then their pay gap increases to about to 15 and 16 percent, at the junior and senior midpoint levels, respectively.

No quantifiable benefits data are available for this specialty.

Results—current cash compensation (Physician Assistant)

The MHS minimum educational standard for a Physician Assistant (PA) is a BS degree from an accredited PA program and passing the

national certification exam.[32] The National Commission on Certification of Physician Assistants (NCCPA) is the certifying agency. In the private sector, all that is required to practice as a PA is a certificate from an accredited PA school and passing the national exam. To retain certification, PAs must obtain 100 continuing medical units every 2 years and recertify every 6 years. There is considerable debate, both at the national and MHS levels, on whether to make a Master's degree the awarded degree for this profession.

The MHS has historically accessed about 117 PAs per year. The primary accession source for all three services is via the active duty enlisted commissioning program at the Inter-service Physician Assistant Program (IPAP) at Ft. Sam Houston, Texas. Individuals entering this program most typically have at least 10 years of enlisted service,[33] are about 30 years old, meet prerequisites to complete the IPAP in 2 years, and have a background in allied health. Upon graduating from this program, a PA is commissioned as an 01-E, with a 4-year active duty obligation. Pursuant to DoD policy, MHS PAs serve as primary care managers in MTFs, and a few are beginning to receive fellowship opportunities to specialize in such areas as orthopedics. Air Force and Navy PAs are typically assigned to MTFs, whereas the vast majority of Army PAs serve in frontline combat battalions. Physician supervision for practice is set at the national level, but peer review is sometimes accomplished through periodic site visits and telecommunications because of the location and remoteness of some duty assignments. The ability to prescribe medications and narcotics varies by service, and has often varied by MTF. The MHS PA community is about 84 percent male.

According to the American Academy of Physician Assistants (AAPA), about 4,000 PAs graduated in 1999 and roughly 4,500 PAs will

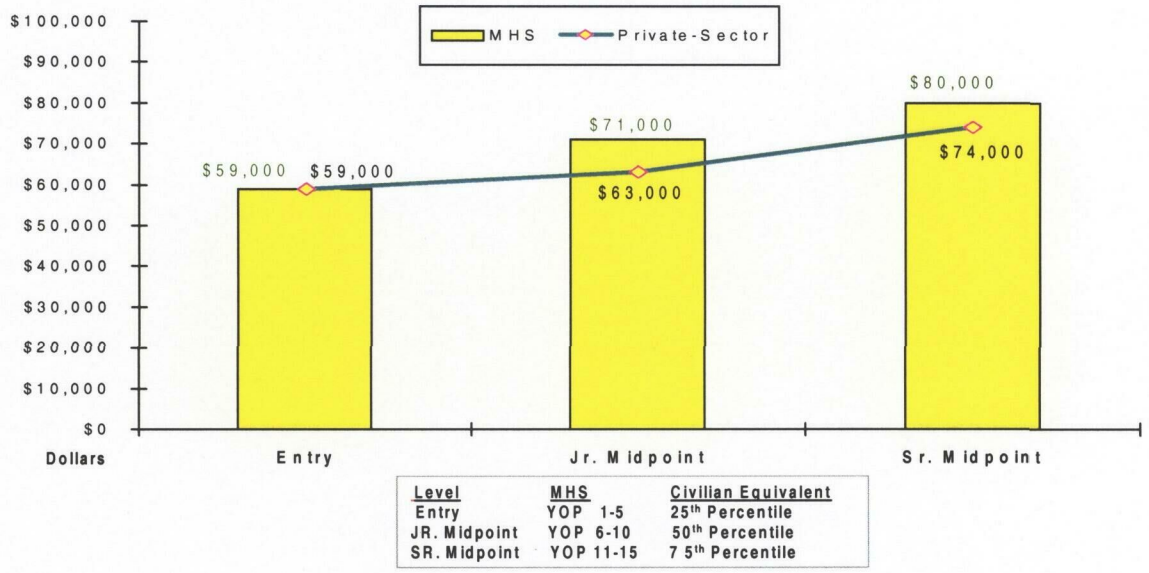
32. The MHS PAs normally attain certification within 1 year of appointment, but the Army allows 2 years to obtain this status because of the remoteness of duty assignments.

33. The estimated active duty RMC paid to a 2-year enlisted student for the duration of the program is estimated to be about $76,000. The IPAP has also recently opened up limited quotas to commissioned officers in addition to enlisted personnel.

graduate annually in the near future. The typical student entering a civilian PA program is a 30-year-old college graduate with over 4 years of prior health care experience. About 60 percent of the 1999 graduating class was female. PAs in the civilian sector primarily work in outpatient settings. Sixty-seven percent of PA jobs are in offices and clinics of physicians or other health practitioners, and 21 percent work in hospitals.

Let's now review figure 12 to compare the MHS and private-sector cash compensation. We find that the MHS PA compensation meets or exceeds their civilian equivalents at all career junctures.

Figure 12. Current average cash compensation comparison at three career junctures (uniformed service vs. private-sector physician assistant)



The major issues facing this specialty will be addressed in phase II of this study. Because DoD relies so heavily on the IPAP for the majority of its accessions, and its applicant pool already has 10 years of federal service before being commissioned as a PA, the services report difficulty retaining MHS PAs past the 20-year-of-service career point. Consequently, they are only getting about 10 years of practice from their predominant accession source, and this specialty is reporting

difficulty "growing" field grade officers because its workforce is retiring after completing 10 years of commissioned service. The Army reports the most concern about this issue owing to the operational nature of its billet structure.

We were able to glean some benefit information for this specialty. According to the *American Academy of Assistant Physicians (2000) Survey*, most PAs receive paid leave for vacation (95 percent), illness (77 percent), and continuing medical education (CME) programs (83 percent) from their employers. The median number of days paid per year for vacation, sick, and CME leaves are 15, 9, and 5, respectively. Other paid benefits that are generally reimbursed in full by their employers are professional liability insurance, licensing, credentialing, and registration fees.

Results—current cash compensation (Registered Nurses)

The MHS's minimum educational accession standard to be commissioned in the Nurse Corps is a BS in Nursing accredited by the National League for Nursing (NLN) or the Commission on Collegiate Nursing Education (CCNE). The educational requirement for Registered Nurses in the private sector includes multiple pathways to the practice of nursing (all programs must be accredited by the NLN or CCNE):

- Associate degree in Nursing (ADN)
- BS degree in Nursing (BSN)
- Hospital diploma
- Other entry programs for those individuals who already have Bachelor's degrees.

According to the *1996 HRSA National Sample Survey of Registered Nurses*, of RNs employed in nursing:

- 32 percent held baccalaureate degrees as their highest educational credential
- 34 percent held associate degrees from community hospitals
- 24 percent had hospital diplomas.

The educational requirement difference between the MHS and the private-sector registered nurses highlights a major "tension point" in health care today. In an effort to contain costs, many health care delivery systems are restructuring their staffing mix, replacing licensed professional nurses with unlicensed assistive personnel (UAP). In doing so, many patient care functions normally performed by RNs have been transferred to UAPs (commonly referred to in the health care industry as "de-skilling" one professional and "multi-skilling" another). Other forces within the industry are concerned that tilting this balance too far will result in increased medication errors, adverse patient outcomes, and increased length-of-stay averages for inpatients. Beginning in 2005, the Veterans' Administration, the largest employer of nurses, has established the baccalaureate degree as the minimum preparation its nurses must have for promotion beyond entry level. The boundaries between nursing, ancillary, and case managers will most likely continue to blur as health care organizations continue a balancing act of containing costs, preventing adverse patient outcomes, and enhancing patient satisfaction. For the MHS, commissioned nurses have traditionally worked with medics and corpsmen, civil service and contract RNs, and licensed vocational nurses.

The MHS has historically accessed about 880 nurses per year and the predominant accession source is direct procurement, with a $5,000 signing bonus, and a commensurate 4-year active duty obligation. The predominant entry grade for this profession is 0-1. The services, however, are supplementing their total accession requirements through other subsidized programs that are providing them a more diverse and military-oriented workforce. Most first-tour MHS nurses initially serve in an MTF as a general staff nurse with rotations to specialty units or outpatient clinics, and the focus is on solidifying clinical skills. The majority of MHS nurses will eventually compete for limited service-sponsored graduate education opportunities. One reason why the MHS general registered nurse is so important is that it is the "bedrock" not only of the CRNA and APN specialties, which we will examine later, but of other nursing specialists needed for both wartime and peacetime benefit missions (e.g., operating room nurses and critical care nurses).

One concern for the MHS, and the nation as a whole, is the predicted workforce shortage for the nursing profession. Support for this shortage is based on the high numbers of RN retirements projected in the next 10 to 15 years. In addition, of all working RNs in the United States, the percentage of nurses under 30 years of age dropped from 30 percent of the RN workforce in 1983 to 12 percent in 1998 [55]. Concurrently, expanded opportunities for women, who make up 94 percent of all RNs, is lowering the number of individuals entering the profession as well.

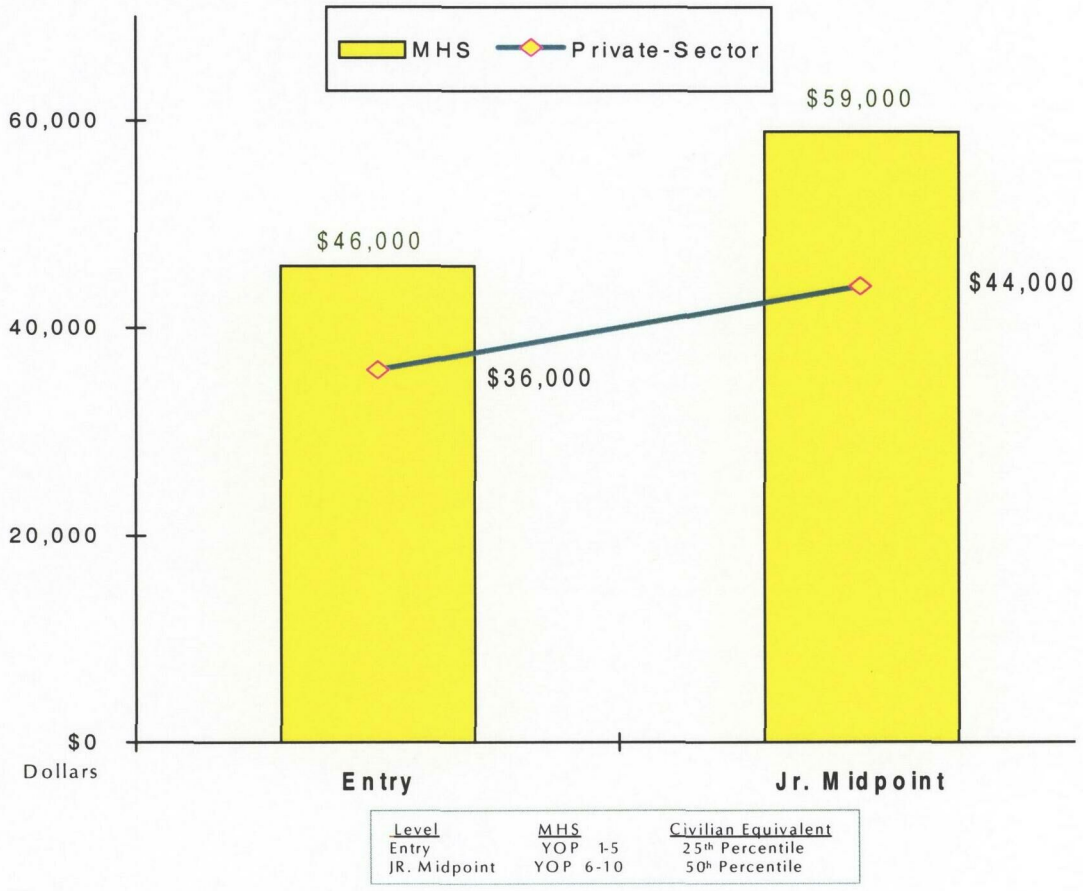
The U.S. Bureau of Labor and Statistics has predicted that job opportunities for RNs will grow by 21 percent by 2006, compared with a 14-percent increase for other occupations. According to the American Association of Colleges of Nursing (AACN), the increased demand for BSN and graduate-prepared nurses is being driven by a variety of factors, including:

- An increasing elderly population
- Growing number of hospitalized patients who are older and acutely ill
- Expanding opportunities for nurses in primary care, HMOs, home health, and outpatient surgical centers
- Increasing recruiting of nurses by managed care organizations
- Technological advances requiring more highly skilled nursing personnel.

As we can see in figure 13, the cash compensation of MHS RNs exceeds their civilian counterparts at each juncture. In figure 13, we compare the cash compensation between the MHS and civilian equivalents at two bandwidth junctures, entry and junior midpoint. The MHS most typically "grows" the majority of its required nursing subspecialists from its general registered nursing pool by sending qualified applicants to graduate schools in the private sector. We portray the compensation at later career junctures by looking at two subspecialties within nursing, APNs and CRNAs, to see how military career progression affects their compensation at later career junctures. We feel that this is a valid comparison because our predominant career profile for MHS RNs shows them receiving graduate education and

then specializing in that field.[34] In the private sector, health care organizations report no or very little difference in pay between BSN- and ADN- educated registered nurses. Again, many health care organization do not differentiate RN salaries based on education.[35] Diploma nurses, who are older and tend to be more experienced, have traditionally earned the most income. The MHS nurse's minimum education standard of a BS degree is consistent with other officer corps within DoD.

Figure 13. Current average cash compensation comparison at two career junctures (uniformed service vs. private-sector registered nurses)



34. Appendix C provides the predominant career profile for each specialty.

35. The 2000 HRSA nursing income data we have requested may help us to better compare private-sector *BSN* salaries and MHS RNs. We will review this survey and report substantial trends in the final report.

We were able to find some information on private-sector benefits for acute care hospital nurses, as reported in the 1999, *RN Magazine Salary Survey:*

- 98 percent of full-time RNs surveyed report that their employers provide health coverage, and 93 percent report dental coverage as part of their benefit package. Approximately 75 to 80 percent of respondents contributed to these costs.
- 80 percent of full-time RNs have a tax-deferred retirement plan.
- 40 percent of full-time nurses report no additional compensation for being on call. About the same percentage are paid an extra $2.15 an hour for overtime.
- 15 percent of nurses belong to unions. Unionized nurses make about $5.00 more an hour than non-unionized nurses.
- 75 percent of respondents reported a differential for working the night shift ($4,000 annually), and a BSN or specialty certification raises it by $1,250 per year.
- 61 percent of full-time RNs are reimbursed for tuition. Less than 50 percent of full-time RNs are reimbursed for continuing education (CE) programs. When employers reimburse tuition, it averages $2,125 annually, whereas CE programs averaged $1,075 per year.
- Average number of paid days:
  - — Vacation - 17
  - — Sick days - 10
  - — Holidays - 7
  - — Personal holidays - 5.

According to the *BLS: Employer Costs* (March 2000), 27 to 28 percent of an average nurse compensation package goes to pay benefits. The employer spends about $20,426 on benefits for a nurse who earns $45,500, or about 45 percent of their base salary. DoD provides a

benefit package worth about $34,000 to an active duty (0-3) whose RMC is about $57,064, or about 60 percent of their RMC.[36]

Let's now look at two nursing sub-specialties, CRNAs and APNs.

Results—current cash compensation (CRNAs and APNs)

The MHS acquires the majority of its required nursing sub-specialists from its general registered nursing pool, by sending qualified applicants to graduate schools in the private sector and paying their tuition, books, and active duty salaries while in school.[37]Most typically, applicants will enter graduate school after completing about 8 years of commissioned service as an MHS nurse, will attend graduate school for about 24 months (incurring a 4-year active duty obligation for schooling), and will be eligible for promotion to 0-4 in 1 to 2 years following completion of school.

Based on this predominant career path, we compared cash compensation between uniformed MHS and private-sector CRNAs and APNs[38] at three career junctures. Overall, there are no major differences in the scope of practice, educational requirement, or case mix between uniformed and civilian health care professionals for these two nursing sub-specialties.[39] Appendix C presents a side-by-side comparison of the MHS CRNAs and APNs and their civilian counterparts.

Figure 14 reveals that uniformed CRNAs experience a 10-percent pay gap with their private-sector counterparts at the entry level, but recover and exceed the civilian compensation at later career

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36. Additional information comparing private-sector and uniformed benefits may be found in a separate CNA document (CRM D0001316.A1—*The DoD Health Care Benefit: How Does it Compare to FEHBP and Other Plans?).*

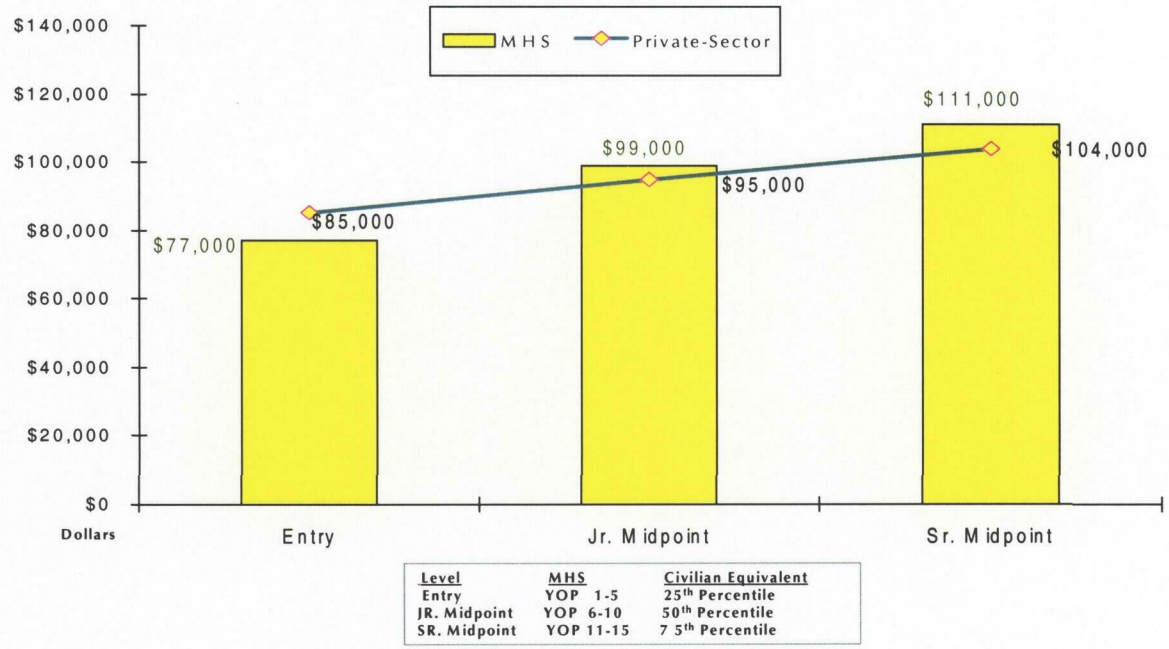
37. Cost of tuition and books varies by program, but the active duty RMC for the duration of the program is about $116,000.

38. For this study, Advanced Practice Nurses include family nurse practitioners, nurse midwives, and pediatric nurse practitioners.

39. MHS CRNAs must be proficient in providing general anesthesia and, therefore, attend institutions teaching this competency.

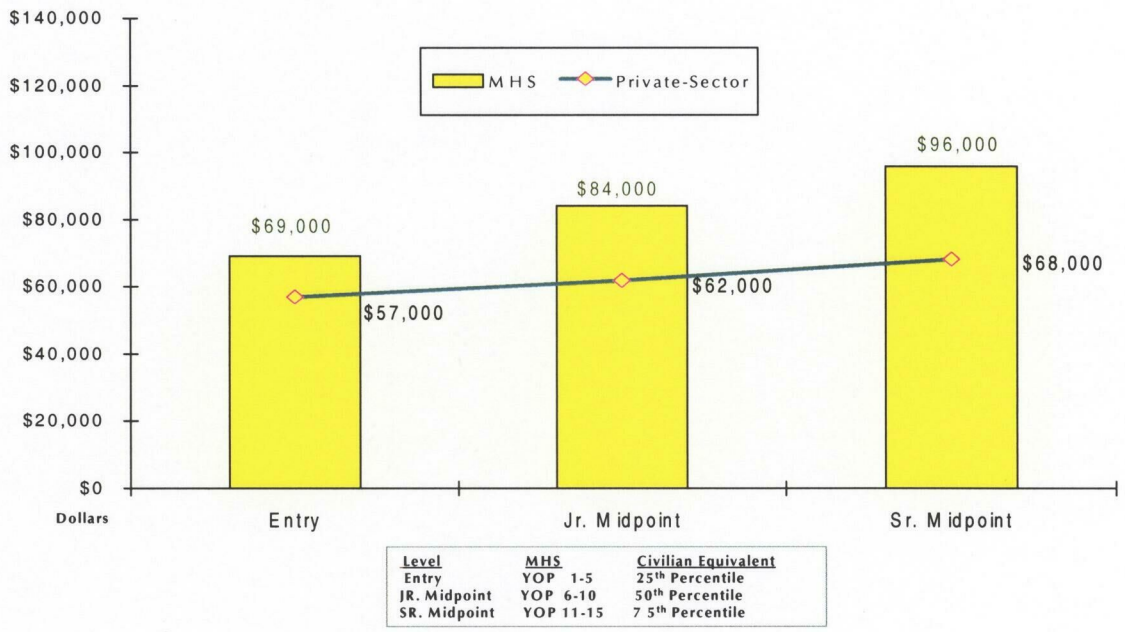
junctures. Fortunately, this pay gap occurs when CNRAs are still obligated for their graduate training. During phase II of this study, we will evaluate how many MHS CRNAs are remaining on active duty past 20 years of commissioned service. With such large CRNA salaries in the private-sector, in addition to an individual's military retirement, it is more lucrative for these officers to retire at the earliest point and go into practice in the civilian sector.

Figure 14. Current average cash compensation comparison at three career junctures (uniformed service vs. private-sector CRNAs)



Let's now turn to figure 15 and compare the uniformed and private-sector cash compensation for APNs. We show that MHS APNs' cash compensation exceeds that of their civilian counterparts, at all junctures. Once again, during phase II of the study, we will determine how many MHS APNs are staying past 20 years of commissioned service.

Figure 15. Current average cash compensation comparison at three career junctures (uniformed service vs. private-sector APNs)



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Conclusions

By developing a predominant MHS career profile model for physicians and selected other health care professionals, we were able to calculate and compare the compensation of uniformed and private-sector specialties, at logical military career junctures. We believe that we have provided a reasonable, conservative, and valuable framework for comparing compensation of MHS and private-sector physicians and selected other health care professionals.

Based on our analysis, we find that a current uniformed/private-sector physician compensation gap exists and that the gap varies widely by medical specialty. Moreover, for the majority of these specialties, the pay gap has widened in the last decade.

We also know that the pay gap narrows over the length of a uniformed physician's career and, in some cases is eliminated when we look at completing a 20-year career through the present-value (PV) comparison. For some specialties, such as family practice and internal medicine, the PV comparison indicates that it is actually more lucrative to stay in the military for the full 20 years and then pursue a private-sector career path. For other uniformed specialties, however, such as orthopedic surgery and diagnostic radiology, the PV comparison shows that it is still more lucrative for them to separate from the military at the completion of 12 years of service and work in the private sector as a salaried employee until age 65.

For dentists and optometrists, we show a significant uniformed/private-sector cash compensation gap at all career junctures, and that the student debt for both of these professions has risen dramatically in the past 10 years. The uniformed-private sector pay gap for dentists may be even more significant based on the projected national shortage for this profession.

To a lesser extent, we find that a uniformed/private-sector compensation gap exists for clinical psychologists, pharmacists, and CRNAs at various career junctures.

We show that the uniformed compensation for physician assistants, registered nurses, and APNs meets or exceeds the private-sector cash compensation for these same professionals, at all career junctures.

Based on the results of this analysis, we believe that DoD will continue to rely on, and will most likely have to expand, the use of subsidization programs to initially attract and help retain certain health care professionals.

Closing remarks

Even though pay gaps exist between several uniformed and private sector specialists, it does not answer the question posed by Congress on the adequacy of medical special pays and bonuses for MHS professionals. The answer lies in the MHS's ability to fill both its peacetime and active component readiness requirements with the right professionals, with the right skill mix, with the right grade, and with the right years of experience from within today's force and future accessions. If one of these dimensions is missing or deficient, the current special pays and bonuses may need to be adjusted to help achieve the required inventory for a given specialty requirement. We will respond to these important issues during phases II and III of our study by analyzing the manning, retention, accession, and training trends for these same health care professionals.

Although beyond the scope of this study, we believe that DoD needs to assess the total cost of each of its MHS accession programs, and the commensurate active duty obligation associated with these programs, for both their cost and effectiveness in attracting and retaining desired professionals.

Appendix A: Methodology, assumptions, and selected findings for comparison of uniformed and private-sector physicians' total compensation, by medical specialty

Methodology

We culled private-sector compensation from proprietary databases representing over 90 employer-based health care organizations and 22,000 physician incumbents. We feel that comparisons to this sample are appropriate because the characteristics of the organizations reporting data most closely resemble the military environment (56 percent are hospital-based facilities, 29 percent are group practices, and 15 percent are Health Maintenance Organizations). We consistently applied the most typical uniformed career progression profile assumption to each specialty based on each service's predominant career path.

The cross-sectional comparisons are presented for both median and 75th-percentile private-sector (salaried physician) data in separate CNA documents (CIM D0002053.A1—*Comparison of Navy and Private-Sector Physicians' Total Compensation, by Medical Specialty* and CIM D0003361.A1—*Comparison of Army/Air Force and Private-Sector Physicians' Total Compensation, by Medical Specialty.*

We also made present-value (PV) comparisons for both median and 75th-percentile private-sector (salaried physician) data. Specifically, we compare the options of (1) remaining on active duty until retirement (at 20 years of service) followed by practicing in the private sector until age 65, and (2) separating at 7, 12, or 17 years of service and practicing in the private sector until age 65. Because of time limitations, PV calculations were performed only for Navy physicians, but we believe (and the TMA and the individual service representatives all agreed) that these values reflect the same economic stay/leave decisions for Army and Air Force physician specialties. PV

comparisons are contained in a separate CNA document (CIM D0002053.A1).

Assumptions

Military profile

Based on discussions with representatives from the TMA, Army, Navy, and Air Force, the model adopts an accession, career, and training profile typical of most military physicians. The profile assumes graduation from medical school at age 26, due course promotion, a 4-year Armed Forces Health Professional Scholarship Program (AFHPSP) followed by an active duty internship (PGY-1), and completion of a full-time in-service residency (PGY-2). The following exceptions to this typical career path apply. Unlike the Army and Air Force, Navy physicians are assumed to serve 2 years as general medical officers (GMOs) before commencing residency. The Army and Air Force typically send their physicians immediately into residency training following internship, and fellowship training commences immediately following residency training. Navy specialties requiring a fellowship (e.g., gastroenterology) are assumed to occur after a 2-year staff utilization tour in the primary specialty (e.g., internal medicine). With the following two exceptions, the predominant profile for Army and Air Force physicians is the same. For neurosurgery and otolaryngology, the Army residency programs are assumed to be 6 and 5 years in length, respectively, and the Air Force residency programs are assumed to be 5 and 4 years in length, respectively.

Civilian equivalent

By civilian equivalent, we mean a physician of the same specialization with equivalent years of practice (YOP) as a fully trained specialist working in the private sector. As an example, for internal medicine, at age 33 a Navy physician would have completed 7 years of service, composed of a 1-year active duty internship, 2 years as a GMO, 2 years in internal medicine (IM) residency, and 2 years of practice as a IM specialist. The Navy physician total compensation will be compared with a private- sector IM specialist with 2 years in practice. The Army and Air Force physician total compensation will be compared with a private-sector IM specialist with 4 years in practice because Army and

Air Force physicians do not serve a 2-year GMO tours before beginning their residency.

Compensation

The "compensation package" offered to both military and private-sector physicians comprises many elements. It is vital that policy-makers and individual military physicians understand all the components of compensation (salary, incentive pays, pension, vacations, health care, and other benefits) to make a prudent comparison of the military and the private sector.

Uniformed physician cash compensation

Uniformed physician *cash* compensation consists of the following:

- Regular Military Compensation (RMC). RMC is composed of Basic Pay, Basic Allowance for Housing, Basic Allowance for Subsistence, and the tax advantage accruing to the non-taxable nature of housing and subsistence allowances. The study was based on the 1 July 2000 RMC data.
- Special pays. Incentive pays are Variable Special Pay (VSP), Additional Special Pay (ASP), Board Certification Pay (BCP), Incentive Special Pay (ISP), and Multi-year Special Pay (MSP). Incentive pays are assumed to be paid in annual installments based on specialty and year of service (as appropriate). Payments are at rates effective 1 October 1999. Because future increases in incentive pays are subject to legislation, the study assumes that current payment levels remain unchanged.

Private-sector physician cash compensation

Private-sector physician *cash* compensation is derived from base; incentive and total salary data are taken from the Hay Group 1999 Physicians' Total Compensation Survey. Survey data are effective as of mid-1999. We adjusted all data to July 2000 by applying a 4.5-percent trend factor. Total salary is the sum of base salary, incentives, and other compensation. Other compensation includes:

- Board fees
- Partnership or other equity distribution

- Profit-sharing payout
- Property distribution
- On-call differential
- Overtime
- Hire-in bonus or other recruiting incentives
- Distribution from owned ancillary services
- Administrative differential.

Benefits

Benefit categories for active service uniformed and private-sector physicians are shown below:

Uniformed and Private-Sector Physician Benefit Categories (Active Service)		
Benefit Category	**Navy**	**Private Sector**
Group Life Insurance	Servicemen's Group Life Insurance (SGLI) Veterans Group Life Insurance (VGLI) Dependency and Indemnity Compensation (DIC) Death Gratuity Burial Allowance Social Security Death Benefit Unused Leave Payback	Basic Group Life Supplemental Group Life Dependent Group Life Basic Accidental Death Business Travel Insurance
Disability	Short-Term Disability Long-Term Disability (Temporary and Permanent Disability Retirement)	Short-Term Disability Long-Term Disability
Health Care	Medical and Dental for Physician and Family (MTF and TRICARE)	Health-Care Insurance (Medical, Dental, Vision)
Pension Plan	Military Retirement System Survivor Benefit Plan	Defined Benefit Pension Plan
Capital Accumulation Plan	No military analogue currently available	401(k) or 403(b) plans
Holidays and Vacation	Holidays Leave	Holidays Vacations
Other Benefits	Commissary Exchange Morale, Welfare and Recreation (MWR) Personal legal services Child care	Flexible Benefits Programs
Statutory Benefits	Unemployment Compensation Workmen's Compensation Social Security	Unemployment Compensation Workmen's Compensation Social Security

Retirement compensation

For the present-value calculations, all uniformed physicians are assumed to retire under the military retirement system that bases payments on the average of the highest 3 years of basic pay (High-3 system). Currently serving physicians who are at or near the 7- and 12-year-of-service points entered military service following enactment of the Military Retirement Reform Act of 1996 and are covered by that system (REDUX). However, the FY2000 National Defense Authorization Act authorized all REDUX participants the opportunity to transfer to the High-3 system at their 15-year-of-service points. The study assumes that all physicians will transfer to the High-3 system. Military benefits for retired uniformed physicians working in the private sector include military retirement and the survivor benefit plan. The study does not include the value of several benefits under the presumption that they would not be used. These include retiree medical care, commissary and exchange, MWR, child care, and use of installation legal services.

Benefits for retired private-sector physicians include pension and capital accumulation plans, survivor benefit plans, and retiree health coverage.

Economic assumptions

Economic assumptions regarding future inflation, salary growth, and interest are needed to compute the present values of future income and benefit streams. The study uses assumptions adopted by the DoD Office of the Actuary in the annual valuation of the military retirement system. The table below shows the values used. In combination, these assumptions indicate that future wage growth will be 0.5 percent above inflation, and future interest rates will be 3.0 percent above inflation.

Economic assumptions	
Inflation	3.5%
Wage Growth	4.0%
Interest	6.5%

The interest rate also represents the discount rate or an individual's time preference for money. Very conservative individuals generally

display a low discount rate that reflects a relatively even preference between receiving a dollar today or a dollar at some time in the future. Less conservative individuals generally display higher discount rates; they have a stronger preference for receiving a dollar today than a dollar sometime in the future.

The Office of the Actuary's interest-rate assumption reflects a relatively conservative long-term view of future interest rates. Individual physicians having a less conservative view of future interest rates and a pronounced preference for income now versus income in the future may want to use a higher discount rate in comparing uniformed and private-sector compensation. The effect of using a higher discount rate is to lower the lump sum equivalent value of the future uniformed compensation relative to the private sector.

Unlike uniformed physicians, who have a 20-year vesting period for retirement benefits, retirement vesting for civilian physicians will be immediate or a maximum of 5 years (as mandated by ERISA). This 20-year vesting policy significantly increases the role that a uniformed individual's personal risk assessment will make in a stay-leave decision based on a PV compensation comparison. In addition, PV calculations are sensitive to assumptions regarding interest rates, inflation, and wage growth. Because the military retirement is a defined benefit plan and civilian physician's typically are offered a defined contribution plan, the retirement benefit that one would receive in the civilian sector is much more sensitive to interest rate assumptions than is the military benefit. As a result, PV comparisons of military and civilian compensation packages are much more sensitive to interest rate assumptions than PV comparisons within like sectors.

Mortality assumptions

The source for active duty, retired, and survivor mortality rates was the DoD Office of the Actuary Valuation of the Military Retirement System. These rates were applied to both Navy and private-sector lives, assuming that mortality for a specific individual would not be significantly affected by whether he or she remained affiliated with the military.

Appendix B: Private-sector (salaried) physician compensation strategies

During phase II of this study, we will be evaluating the effect that the military-civilian physician pay gaps have on retention. Regardless of whether these military-civilian physician pay gaps contribute to accession and retention difficulties, it is important for DoD to understand the employers they are competing against for physicians. Not only is there a pay gap that favors the civilian sector but physician employers are able to tailor benefit packages for particular specialties and to structure cash compensation that is designed to elicit or reward specific behavior.[1]

Benefits

In previous CNA work, conducted for the Under Secretary of Defense for Personnel and Readiness, we calculated the value of the benefits (i.e., the value based on imputed rather than actual costs) provided by DoD in its role as employer to active duty personnel. Reference [8] (a May 2000 CNA document titled *The DoD Health Care Benefit: How Does it Compare to FEHBP and Other Plans?*) provides a detailed description of the methodology used to calculate uniformed benefits for varying pay grades.

We used this same methodology for calculating benefits for this portion of the study.

To illustrate this point, when we compare the benefits for five specialties at the 7-year-of-service juncture, we find that the imputed value of

1. The following paragraphs summarize pay practices recorded for the 91 health care organizations participating in Hay Group's Physician Compensation Survey for 1999, and, where there are consistent data, provide comparisons with results from the 1996 survey.

an MHS physician's benefits is about $36,000 (which is not tailored to his or her speciality), but it represents DoD's employer costs for housing, pension, and health care for that paygrade and length in service. When we compare the imputed value of the employer benefits in the private sector, we find significant variation, by specialty, because employers tailor benefits to help attract and retain the specialists they desire. The average private-sector benefit values for five specialists at this career point are family practice ($45,000), internal medicine ($48,000), general surgery ($54,000), diagnostic radiology ($68,000), and orthopedic surgery ($76,000).

Incentive/bonus pays

Successful health care organizations have developed pay and performance management programs that represent their new cultures and the desired behavior from their workforces. They have created a compensation philosophy that reflects their values and business strategies, and a flexible job evaluation system that is indicative of the new structures, teams, and work processes. These employers have also communicated their expectations and organizational objectives to all employees.

The most common reasons for adopting new compensation plans are to:

- Encourage and reward improvements in productivity and quality
- Align pay with business results
- Focus attention on changing goals and/or performance
- Reduce the "entitlement" element of current pay increases
- Communicate new internal values to employees.

As we can see in table 1, in 1999, nearly 70 percent of participating organizations used incentive pays for physicians, up from nearly 60 percent in 1996.

Table 1. Prevalence of annual incentive/bonus plans – 1996 and 1999		
	Percentage using incentive/bonus plans	
By organizational structure		
	1996	**1999**
Hospital-based	43	59
Group practice	84	74
HMO	88	86
By profit/non-profit status		
For-profit	86	95
Non-profit	47	58
Total	59	69

In both 1996 and 1999, incentive pays were most common in Health Maintenance Organizations (HMOs) and in for-profit organizations. Between 1996 and 1999, however, there was a significant increase in the percentage of hospital-based organizations using incentive pay plans.

In addition, 27 percent of surveyed organizations that did not have an incentive pay plan in 1999 indicated that they were considering implementing an incentive plan in the future.

Table 2 summarizes the measures that physician employers used for determining incentive or bonus payout by type of organization. Individual physician performance based on productivity was the most commonly used measure for hospital-based and group practices in both 1996 and 1999, and the percentage of employers using this measure increased between 1996 and 1999.

Individual performance measures not related to productivity also increased in use by hospital-based and group practice employers during this period. Organization or department performance was the most commonly used measure in HMOs in 1999. Quality was not considered as a separate measure in 1996 so its effects are included in the "Other" category for that year.

Table 2. Measures used for determining incentive or bonus payout – 1996 and 1999 (percentage of physician employers using this measure)

Measure	Hospital-Based		Group Practice		HMO	
	1996	**1999**	**1996**	**1999**	**1996**	**1999**
Individual performance based on productivity	61%	74%	62%	67%	21%	20%
Individual performance based on factors other than productivity	18%	32%	29%	40%	36%	20%
Organization/department performance	29%	37%	18%	13%	21%	70%
Patient satisfaction	29%	37%	19%	27%	43%	30%
Quality	N/A*	0%	N/A*	13%	N/A*	40%
Utilization management	14%	21%	5%	13%	29%	20%
Seniority	18%	11%	19%	13%	7%	10%
Other	25%	11%	38%	13%	71%	20%

* Not used as a separate category in the 1996 survey. These effects are reported in the "Other" category.

Individual performance was the most commonly used measure in hospital-based and group practice organizations, and this factor was the most heavily weighted in determining an individual physician's annual payout.

Table 3 shows how each measure was weighted by organization type for 1999. Weighted data are not available in the 1996 survey. For example, 57 percent of a physician's incentive payout in hospital-based and group practice organizations was based on the physician's individual performance. In HMOs, the key payout determinants were overall department and organizational performance, and quality.

Table 3. Weighting of measures used for determining incentive or bonus payout – 1999 (percentage weight for each measure)

Measure	Hospital-Based	Group Practice	HMO
Individual performance based on productivity	57%	57%	8%
Individual performance based on factors other than productivity	8%	24%	8%
Organization/department performance	15%	2%	28%
Patient satisfaction	5%	6%	9%
Quality	0%	1%	20%
Utilization management	3%	3%	7%
Seniority	1%	5%	9%
Other	11%	2%	11%
Total	100%	100%	100%

It helps DoD to be aware of the pay practices being used by private-sector physician employers as the MHS may be more likely to lose those physicians that believe that this type of compensation structure would benefit them more than the one the military uses. Our better understanding of the pay and incentive practices used by private-sector physician employers will help us in our evaluation of DoD's medical officer special pay programs during phase III of our study.

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Appendix C: Comparative analysis of other health care professions

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Appendix C
Specialty: Dentist

Element	Military Health System (MHS)	Private Sector
Minimum Educational Accession Standard	The minimum educational accession standard for the MHS is a Doctor of Dental Surgery (D.D.S.) or Doctor of Dental Medicine (D.M.D.) degree from a dental school accredited by the American Dental Association (ADA) and successful completion of Parts 1 and 2 of the National Board of Dental Examination.	The educational requirement is the same as stated in MHS.
Licensing Requirement	The MHS requires a current unrestricted state license, which can be waived up to 1 year for Armed Forces Health Professions Scholarship Program (AFHPSP) graduates or for Officers entering directly into an Advanced Education in General Dentistry (AEGD) residency program.	All 50 states and the District of Columbia require dentists to be licensed. Currently, about 17 states require dentists to obtain a specialty license before practicing as a specialist. Most state licenses permit dentists to engage in unrestricted and specialized practice.
Average Number of Total Accessions (FY99—FY01)	The MHS most typically accesses about 344 dentists annually. Due to limitations of HPSP quotas, Army and Air Force are reliant on direct procurements to meet total accession requirements. Navy supplements total accession requirements via the Health Services Collegiate Program (HSCP).	According to the American Dental Association (ADA): 1998/99 dental graduates totaled 4,041, of which 38.4 percent were women. Asians, Native Americans, Hispanics, and African Americans accounted for 32 percent. About 34 percent of new graduates enter a specialty program immediately after graduation. General dentistry is practiced by 81 percent of dentists, while 19 percent practice as specialists. According to the American Dental Education Association (ADEA), 1999 Dental Graduating Class Survey, the average educational debt was $105,150 in 1999, an increase of 7.3 percent over 1998.
Most Typical Accession Source	Primary accession source for all three services is via the AFHPSP. Army and Air Force most typically subsidize students for 3 years, while the Navy most typically subsidizes for 4 years, generating a 3- and 4-year active duty obligation, respectively. AFHPSP includes tuition, books, fees, and a monthly stipend. The average annual DoD outlay for each AFHPSP accession is **$38,000**. Additionally, in 1997, Congress authorized the services a $30,000 accession bonus with a commensurate 4-year active duty obligation to enhance the recruitment of direct accession dentists. Individuals receiving any other type of subsidization, like AFHPSP, are ineligible for this bonus. Despite this bonus, Army and Air Force report a decline in direct accessions, and Navy relies on the Health Services Collegiate Program (HSCP) to meet total accession requirements. Even though the MHS can offer the direct accession dentists a $30,000 signing bonus, this tool is not always effective in achieving required direct procurement numbers because of increasing education debt load. The Navy supplements its total accession requirements with the HSCP, which provides students military E-3 pay (about $1,000 per month) and	According to the ADEA 1999 Survey of Dental Graduates, immediate plans following graduation include: ➢ 54 percent in private practice (i.e., 36 percent as an employee in the practice, 13 percent in a Partnership/Group, and 5 percent in solo private practice). ➢ 34 percent post-doctoral education. ➢ 10 percent in government service. ➢ 3 percent other or undecided. According to the ADEA, (1999 Survey of Dental Graduates), 85 percent of respondents indicated long-term plans (within 10 years) for practice ownership, either as a sole owner or as an owner in a partnership or group practice. According to the ADA, among dentists out of dental school less than 4 years, about 42 percent own their own practice; by 6 years after graduation, this figure increases to 53 percent. According to the ADEA, 1999 Survey of Dental Graduates, as debt increased, an increasing percentage of graduating seniors with the higher debt chose to

Appendix C
Specialty: Dentist

Element	Military Health System (MHS)	Private Sector
	benefits while completing their last 2 years of dental school. Individuals incur a 3-year active duty obligation for this program.	immediately enter private practice. There was little difference in the percentage of graduating seniors pursuing advanced education by level of debt. Levels of student debt appeared to have an inverse influence on decisions to enter government service. As debt increased, the percentage of graduating seniors entering government service decreased. According to a study in the *Journal of the American Dental Association* (Vol. 131, December 2000), in the next 20 years, the number of dentists retiring will grow faster than the number of dental graduates, possibly exerting a downward pressure on the value of dental practices, as the supply of available dental practices will increase.
Most Typical Work Setting	The first year of service for the graduating HPSP student is an internship year in an AEGD typically located in an Army or Air Force fixed facility/dental clinic or a dental department located within a Navy hospital.	According to the ADA in 1998: ➢ 92 percent of dentists are in private practice. Most of these (77 percent) are in solo practice, while the remaining 15 percent are in group practices. ➢ 6 percent are salaried ➢ 2 percent are independent.
Career Progression	Following the first tour, the MHS dentist typically serves in field dental units, overseas, or units within CONUS. Specialty residency training typically follows the second tour of duty. Following residency training, the officer will traditionally become more involved in leadership, teaching, administrative duties, and multiple military specific training requirements. Military officer specific requirements for the MHS dentist are in addition to clinical and leadership demands, often requiring additional hours.	Dentists in private practice also oversee a variety of administrative tasks, including bookkeeping and buying equipment and supplies. They may employ and supervise dental hygienists, dental assistants, dental laboratory technicians, and receptionists. In the civilian sector, most dentists work 37 hours per week. However, established dentists' work less, while younger dentist work more. As dental practices expand, dentists tend to hire dental hygienists to provide more routine services.
Most Typical Case Mix	Most typical case mix within a CONUS facility generally reflects the active duty population, age group 17-55; therefore, the MHS dentist typically treats relatively few children or older patients on a routine basis. Once assigned overseas, spouses, retirees, and children would be added to the case mix. Upon completion of specialty (residency) training, the patient case mix becomes specialty specific.	Includes all population groups and case mixes. In the civilian sector, management of dental caries dominates the practice. However, dentists are spending more time on preventive and diagnostic services in caries management, reflecting a change in disease patterns.

Appendix C
Specialty: Dentist

Element	Military Health System (MHS)	Private Sector
Cash Compensation	Cash compensation for active duty MHS dentists consists of regular military compensation (RMC),[a] variable special pay (VSP), additional special pay (ASP), board certification pay (BCP), and the dental officer multi-year retention bonus (DOMRB). VSP varies by years of service and ranges from $3,000 to $12,000. ASP also varies by years of service for dentists ranging from $4,000 to $15,000 and is not payable when an individual is in residency training. BCP payments begin after the individual successfully completes board certification examinations and the amounts vary by years of service ranging from $3,500 to $6,000. DOMRB amounts vary by length of contract (2-, 3- or 4-year agreements) and specialty. The maximum amount of DOMRB of $14,000 is denoted in the attachment. To conduct a comparative compensation analysis between uniformed and private-sector dentists, a career profile was established to represent the predominant or most typical experience for an MHS dentist. The attachment summarizes this typical career profile and the cash compensation associated with that profile. **Assumptions Used in Career Profile**: 1) MHS dentists are typically accessed via the AFHPSP with a typical commensurate 4-year active duty obligation. New AFHPSP accessions are typically assigned to a 1-year AEGD. 2) MHS dentist receives 4 years' entry grade credit and is accessed as an 0-3 based on possession of a Doctor of Dental Surgery (D.D.S.) or Doctor of Dental Medicine (D.M.D.) degree. 3) Typical MHS dentist is 26 years old upon accession. 4) Following completion of initial active duty obligation, the MHS dentist typically attends graduate dental education/in-service residency training of varying lengths (2-4 years) with commensurate active duty obligation. The MHS dentist will then most typically serve in staff utilization tours and is virtually free of active duty service commitments (excluding promotions, permanent change of station assignments, etc.) after serving 10 years of commissioned service. 5) Promotion to 0-4 is assumed to occur at end of year of service (YOS) 6, 0-5 at end of YOS 12, and 0-6 at end of YOS 18.	The following data sources were used to compile civilian sector dental salaries: 1) Warren Surveys: The HMO Salary Survey: Spring 2000 Data. 2) RSM McGladrey, Inc., 1999 Data. 3) Hospital and Healthcare Compensation Service: 1999 Data. 4) American Dental Association: 1999 Survey of Dental Practice: Income from Private Dentistry. 1998 Data. Data from the civilian salary surveys described above were averaged to form the cash compensation data for civilian-sector dentists. All data were adjusted to reflect 2000 dollars. [b] Civilian data sources rarely report compensation by years of practice (YOP). Most sources provide salary data by mean, median, and percentiles. Therefore, to make comparison to MHS dentists, we use the reported civilian percentiles as proxies for the cash compensation of civilian dentists at various career junctures (or YOP bands): YOP — Level — Percentile 1-5 — Entry — 25th 6-10 — Junior mid — 50th 11-15 — Senior mid — 75th [c] The underlying assumption of this methodology is that the variation in civilian dentist salaries is driven primarily by YOP. [d] Based on the sources and methodology described above, the following private-sector dentists' cash compensation data were compiled: Salaried Dentists: [e] $93,767 Entry-level $115,180 Junior mid-level $204,678 Senior mid-level
Global Comments	The MHS relies heavily on the AFHPSP program for dental corps accessions. Despite the $30,000 bonus, direct procurement accessions are difficult due to high student debt. The problem of student debt load is compounded by the fact that additional debt is typically accumulated during dental school, bringing the total debt to the $175-200,000 figure.	

[a] RMC is composed of basic pay, basic allowance for housing, basic allowance for subsistence, and the tax advantage accruing to the non-taxable nature of housing and subsistence allowances.

Appendix C

Specialty: Dentist

[b] Data prior to 2000 were adjusted by calculating the annual average of the BLS: Employment Cost Indexes for the Civilian Wages and Salaries for Hospitals and for Health Services. Based on this, 1997, 1998, and 1999 survey data were increased by 2.55, 2.75, and 3.75 percent, respectively.

[c] Assumed at the Sr. Mid-Level and after, the MHS dentist is primarily practicing a dental specialty including the general dentistry specialty. Therefore, we substituted the specialist's median income from the ADA: 1999 Survey of Dental Practice: Income from Private Dentistry. Civilian dentists YOP is equivalent to DoD YOS.

[d] Weaknesses to this approach include the inability to separate from the data the influences of regional variation, years in the profession, or significant trends associated with changes in starting salaries. Despite these weaknesses, we believe private-sector salaries by percentiles (25^{th}, 50^{th}, 75^{th}, 90^{th}) present a reasonable range within which it is possible to make valid comparisons to the uniformed health services' salary compensation. Moreover, limited civilian data by years of experience suggests an upward sloping wage tenure profile that supports our methodology.

[e] The attachment summarizes the private-sector dentist salary data.

CNA **Comparison of Cash Compensation**

Military Health System Dentist

Based on Compensation as of July 2000

Current End YOS	Years of Practice as Dentist	Age	Grade*	Type of Military Service**	ADSC***	RMC	VSP	ASP	BCP****	DOMRB*****	TOTAL	AVERAGE MHS CASH COMPENSATION Based on:>>>>>>>>>>	# Years of Practice as Dentist
1	1	27	O-3	AEGD	3	$46,115.52	$3,000	$4,000	$0	$0	**$53,116**		
2	2	28		SU	2	$46,115.52	$3,000	$4,000	$0	$0	**$53,116**		
3	3	29		SU	1	$49,360.81	$7,000	$6,000	$0	$0	**$62,361**		
4	4	30		SU	0 (x)	$52,104.01	$7,000	$6,000	$0	$0	**$65,104**	**$58,424**	**1-4**
5	5	31		IR	3	$55,128.01	$7,000	$0	$0	$0	**$62,128**	**$59,165**	**1-5**
6	6	32	O-4	IR	3	$55,128.01	$7,000	$0	$0	$0	**$62,128**		
7	7	33		IR	3	$63,312.76	$7,000	$0	$0	$0	**$70,313**		
8	8	34		SU	2	$63,312.76	$12,000	$6,000	$0	$0	**$81,313**		
9	9	35		SU	1	$65,565.16	$12,000	$6,000	$0	$0	**$83,565**	**$71,889**	**5-9**
10	10	36		SU	0 (x)	$65,565.16	$12,000	$15,000	$3,500	$14,000	**$110,065**	**$81,477**	**6-10**
11	11	37		SU		$69,295.30	$12,000	$15,000	$3,500	$14,000	**$113,795**		
12	12	38	O-5	SU		$69,295.30	$10,000	$15,000	$4,000	$14,000	**$112,295**		
13	13	39		SU		$77,636.70	$10,000	$15,000	$4,000	$14,000	**$120,637**		
14	14	40		SU		$77,636.70	$9,000	$15,000	$5,000	$14,000	**$120,637**	**$115,486**	**11-14**
15	15	41		SU		$81,944.86	$9,000	$15,000	$5,000	$14,000	**$124,945**	**$118,462**	**11-15**
16	16	42		SU		$81,944.86	$9,000	$15,000	$5,000	$14,000	**$124,945**		
17	17	43		SU		$86,077.62	$9,000	$15,000	$5,000	$14,000	**$129,078**		
18	18	44	O-6	SU		$86,077.62	$8,000	$15,000	$6,000	$14,000	**$129,078**		
19	19	45		SU		$97,489.60	$8,000	$15,000	$6,000	$14,000	**$140,490**		
20	20	46		SU	(x)	$97,489.60	$8,000	$15,000	$6,000	$14,000	**$140,490**	**$132,816**	**16-20**

* Promotion to O-4 occurs at end of YOS 6; to O-5 at end of YOS 12; to O-6 at end of YOS 18

** Use this key to indicate the type of service for each year

AEGD	Advanced Educational Graduate
IR	In-Service Residency Training
SU	Staff Utilization Tour

*** Active Duty Service Commitment at the end of the current year of service

**** Board Certified Pay

***** DOMRB amounts reflect combinations of contract lengths that would result in a contract expiration at end of 20 YOS; Zero amounts occur for N years prior to retirement if dentist signed DOMRB contract while having an N year ADSC for training.

Attachment---Dentist

CNA Private-Sector Cash Compensation Sources: Dentist

	Dentists (MHS vs Private Sector)		
	Entry Level	Jr. Midpoint	Sr. Midpoint**
	Level	Level	Level
Years of Practice (YOP)	1-4	5-10	11-15
MHS	$59,165	$81,477	$118,462
Civilian	$93,767	$115,180	$204,678
% Variance (MHS/Civ)	**63%**	**71%**	**58%**
Civilian: General Dentist Calculation			
Percentile	25th	50th	75th
Warren	$84,011	$98,443	$115,000
HHC	$101,584	$108,000	$168,630
RSMcGladrey	$96,983	$120,469	$175,001
ADA	$92,489	$133,808	$205,371
Avg	**$93,767**	**$115,180**	**$166,000**

**Assumed at Sr. Midpoint and after practicing a Dental Specialty, substituted median income from Dental Specialist in Private Practice.

General Dentists: Salary by Yrs of Experience		
	MHS	Priv. Practice
Less than 5	$58,424	$112,722
5-9 yrs	$71,889	$127,924
10-14 yrs	$115,486	$139,277
15-19 yrs	$132,816	$142,315

Specialists: Salary by Yrs of Experience		
	MHS	Priv. Practice
Less than 5	N/A	N/A
5-9 yrs	N/A	$175,319
10-14 yrs	$115,486	$181,225
15-19 yrs	$132,816	$255,848

Priv. Practice = Self-employed dentists as defined by the ADA in the 1999 Survey: Income from Private Dentistry

Data Sources:

1/Warren Surveys: The HMO Salary Survey: Spring 2000. Rockford, IL 61114. 815.877.8794 www.demarcowarren.com

# of Plans	# of Persons	10th	25th	Mean	Median	75th	90th
20	145	$70,129	$84,011	$119,117	$98,443	$115,000	$221,496

2/RSM McGladrey, Inc: 1999 Data for Dentists in Private Practice.

Only 20th and 80th percentiles published. Substituted RMcGladrey 20th and 80th percentiles for 25th and 75th percentile in civilian calculation.

# of Providers	Med Pract	Std Dev	20th	Mean	Median	80th	90th
34	9	$41,050	$96,983	$130,649	$120,469	$175,001	$185,500
Adjusted for 2000			$100,620	$135,548	$124,987	$181,564	$192,456

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

3/ Hospital and Healthcare Compensation Service: 1999 Data for all Facilities. Oakland, NJ.

# of Providers	Facilities	Lowest	25th	Mean	Median	75th	Highest
475	119	$65,000	$97,912	$101,862	$104,096	$104,701	$162,535
Adj 2000*		$67,438	$101,584	$105,682	$108,000	$108,627	$168,630

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

4/ American Dental Association: "The 1999 Survey of Dental Practice: Income from Private Dentistry". 1998 data.

Survey: 4,902 general practitioner and 2,448 specialists (periodontists, endodontists, and oral and maxillofacial surgeons) w/an overall response rate of 47.8%

General Dentists Average Net Income from Primary Private Practice: 1998

	Std Dev	25th	Mean	Median	75th	N
1998	$93,500	$86,760	$147,850	$125,520	$192,650	1001
Adj 2000*		$92,489	$157,613	$133,808	$205,371	

Average Net Income from Primary Private Practice: by Years Since Graduation from Dental School

-1998	25th	Mean	Median	75th
Less than 5	$51,000	$123,660	$105,740	$175,000
5-9 yrs	$100,000	$151,750	$120,000	$199,000
10-14 yrs	$95,000	$154,030	$130,650	$185,000
15-19 yrs	$95,000	$153,530	$133,500	$200,000

Adjusted for 2000*

	25th	Mean	Median	75th
Less than 5	$54,368	$131,825	$112,722	$186,555
5-9 yrs	$106,603	$161,770	$127,924	$212,140
10-14 yrs	$101,273	$164,201	$139,277	$197,216
15-19 yrs	$101,273	$163,668	$142,315	$213,206

Speciality areas: periodontists, endodontists, and oral and maxillofacial surgeons.

Specialists Average Net Income from Primary Private Practice: 1998

	Std Dev	25th	Mean	Median	75th	N
1998	$135,570	$120,000	$221,510	$192,000	$300,000	382
Adj 2000*		$127,924	$236,137	$204,678	$319,809	

Average Net Income from Primary Private Practice: by Years Since Graduation from Dental School, 1998

	25th**	Mean	Median	75th
Less than 5	N/A	N/A	N/A	N/A
5-9 yrs	$120,000	$220,490	$164,460	$300,000
10-14 yrs	$117,000	$199,500	$170,000	$267,500
15-19 yrs	$151,810	$254,600	$240,000	$325,000

Adjusted for 2000*

	25th	Mean	Median
Less than 5	N/A	N/A	N/A
5-9 yrs	$127,924	$235,049	$175,319
10-14 yrs	$124,726	$212,673	$181,225
15-19 yrs	$161,834	$271,412	$255,848

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 1999 = 2.75%; 2000 = 3.75%.

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Appendix C
Specialty: Pharmacist

Element	Military Health System (MHS)	Private Sector
Minimum Educational Accession Standard	The minimum educational accession standard for the MHS is a Bachelor of Science degree, however, the most typical accession into the MHS today possesses a "Doctor of Pharmacy (PharmD), a 4-year professional doctoral degree with a minimum of 2 years pre-professional work, accredited by the American Council on Pharmaceutical Education (ACPE).	The minimum educational requirement is a Bachelor of Science (BS) pharmacy degree. However, all accredited pharmacy schools are expected to graduate their last BS pharmacy degree in 2005. The November / December 2000 issue of the *Journal of the American Pharmaceutical Association* (Vol. 46, No. 6) reports of the 81 U. S. schools of pharmacy, all but 11 made the transition to PharmD degrees in the 1990's.
Licensing Requirement	The MHS requirement is a current, valid state license within first year of appointment.	The private sector requirement is a current, valid state license. States may require continuing education for license renewal.
Average Number of Total Accessions (FY99—FY01)	The MHS most typically accesses about 71 pharmacists per year. However, each service's accession goals were generally greater than the number of pharmacists that could be directly procured.	According to the American Association of Pharmacy (AACP), 7,141 first professional pharmacy degrees (BS & PharmD) were awarded in 1999. Fifty- four percent of graduates received a BS degree. According to the AACP, women made up 63 percent of professional pharmacy degrees awarded in 1999.
Most Typical Accession Source	Primary accession source for the MHS pharmacist was historically direct accession without subsidization. However, the inability of the services to achieve the required pharmacy accessions, and the rising student debt load in conjunction with increasing educational program lengths, prompted Congress in FY01 to authorize DoD to offer $30,000 accession bonuses. However, at this time, the services are able to appropriate only about $10,000 per signing bonus. Due to MHS's inability to directly procure required pharmacists, the services are using other types of subsidized accession programs to meet their total accession requirements. The Navy uses the Health Services Collegiate Program (HSCP) for over half of its required accessions, and in FY00 the Air Force has begun using the Armed Forces Health Professions Scholarship (AFHPSP) program. The services report being reliant upon the newly authorized accession bonus to meet their total accession requirements, and are seeking ways to fund the entire $30,000 authorized accession bonus. In the interim, they will continue to use the HSCP and AFHPSP.	The Pharmacy Workforce: A Study of the Supply and Demand for Pharmacists (2000), prepared by the US Department of Health and Human Services, states that the number of unfilled full- and part-time pharmacist positions rose from 2,700 in February 1998 to nearly 7,000 in February 2000. To attract new and established pharmacists, it is not uncommon for civilian employers to offer signing bonuses (ranging from $1,000 to $5,000 on a conditional basis), and stock options. According to the Pharmacy Work Force Study (2000), since 1998, there are anecdotal reports of large jumps in salaries paid to attract pharmacists to open positions
Most Typical Work Setting	Most first-tour MHS pharmacy officers are typically assigned to inpatient, outpatient, supply, and clinical pharmacy duties within a major medical center.	About 60 percent of private-sector pharmacists worked in community pharmacies, either independently owned or part of a drug chain, grocery store, and department store or mass merchandiser. Most community pharmacists are salaried employees. Twenty five percent of salaried pharmacists worked in hospitals, 4 percent in long-term facilities, and 2 percent in home care. Other areas for employment include clinics, mail-order pharmacies, pharmaceutical wholesalers, and HMOs.

Appendix C
Specialty: Pharmacist

Element	Military Health System (MHS)	Private Sector
		Pharmacy services are shifting to long-term, ambulatory, and home care settings, thereby possibly reducing specialized pharmacy acute care positions in the future According to the National Pharmacist Workforce Survey: 2000, in the civilian sector: ➢ 14.9 percent of pharmacists work part-time and tend to be women. ➢ 73.3 percent of full time pharmacists work 44.2 hours per week and 48.7 weeks/year. According to Chisholm and Cobb (*Am J Health-System Pharm*: 1996, 53:305-7), studies suggest that pharmacists with a BS degree are more likely to be employed in community settings, while those with a PharmD degree are more likely to be employed in a hospital setting. Currently, in the private sector, hospitals are experiencing the highest vacancy rates. Generally, civilian hospitals pay 10 to 15 percent lower salaries than chains and other employers pay, and the hours are not as attractive because they dispense medications 24 hours a day.
Career Progression	Second-tour assignments typically include serving as the lone pharmacist in a small CONUS medical treatment facility or an overseas hospital. Deployments, in direct support of operational exercises, are also common. The role of the MHS pharmacist, once credentialed and privileged, has expanded to direct patient care. MHS pharmacists work closely with physicians and nurses on wards and in clinics ensuring the appropriate and safe use of medications. Clinical pharmacists are actively involved in more specialized practice areas to include Nuclear and Oncology Pharmacy. MHS pharmacists also are actively involved in and manage patients in disease state management clinics, such as Asthma, Diabetes, Anticoagulation, Hypertension, and stand-alone Medication Refill clinics. Mid-career and senior pharmacy officers must also assume responsibilities of administrative, financial, personnel management, and military leadership duties that increase with seniority.	In community pharmacies, pharmacists usually begin at the staff level. After they gain experience and secure necessary capital, some become owners or part owners of pharmacies. Pharmacists in chain stores may be promoted to supervisor or manager at the store level, then to district or regional level, and later to an executive position within the chain's headquarters. Hospital pharmacists may advance to supervisory or administrative positions. Pharmacists in the pharmaceutical industry may advance in marketing, sales research, quality control, production, etc. David Mott's study on pharmacists' job turnover suggested that pharmacist job turnover averaged 11 percent between 1983 and 1997. Pharmacists who left jobs typically stayed less than 3 years. The percentage citing stress as a reason for leaving increased, and the percentage citing salary decreased. (*American Journal of Health-System Pharmacy*: Vol. 57, May 15, 2000).
Most Typical Case Mix	Most typical case mix includes all age groups for active duty, retirees, and family members.	Most typical case mix includes all population age groups and case mixes.
Cash Compensation	Cash compensation for active duty MHS pharmacists consists of regular military compensation (RMC)[a] and board certification pay (BCP) as of July 2000. BCP payments begin after individual successfully completes board certification examinations, and the amounts vary by years of service ranging from $2,000 to $5000.	The following data sources were used to compile private-sector pharmacist salaries: 1) Warren Surveys: The HMO Salary Survey: Spring 2000 Data. 2) MGMA: Physician Compensation and Productivity Survey: 2000 Report based on 1999 data.

Appendix C
Specialty: Pharmacist

Element	Military Health System (MHS)	Private Sector
	To conduct a comparative compensation analysis between uniformed and private-sector pharmacists, a career profile was established to represent the predominant or most typical experience for a MHS pharmacist. The attachment summarizes this typical career profile and the cash compensation associated with it. **Assumptions Used in Career Profile**: 1) MHS direct procurement pharmacist receives an accession bonus and a commensurate 4-year active duty obligation. 2) MHS pharmacist receives 4 years' entry grade credit and is accessed as a 0-3 based on possession of a Doctor of Pharmacy (PharmD) degree. 3) Typical MHS pharmacist is 24 years old upon accession. 4) Although the services offer varying fellowship or graduate education opportunities, the MHS pharmacist most typically serves in staff utilization tours after accession and is predominantly free of active duty service commitments (excluding promotions, permanent change of station assignments, etc.) after serving 4 years of federal service. 5) Promotion to 0-4 is assumed to occur at end of year of service (YOS) 7, 0-5 at end of YOS 12, and 0-6 at end of YOS 18. These flow points are consistent with published Defense Officer Personnel Management Act guidelines.	3) Pharmacy One Source, Inc. and Pharmacy Week, Inc.: Fall 2000 Survey Results (Internet 2000 Survey). 4) BLS: Occupational Outlook Handbook (2001-01). Data based on 1997 and 1998. Data from the civilian salary surveys described above were averaged to form the cash compensation data for private-sector pharmacists. All data were adjusted to reflect 2000 dollars. [b] Civilian data sources rarely report compensation by years of practice (YOP). Most sources provide salary data by mean, median, and percentiles. Therefore, to make comparison to MHS pharmacists, we use the reported civilian percentiles as proxies for the cash compensation of civilian pharmacists at various career junctures (or YOP bands): YOP — Level — Percentile 1-5 — Entry — 25th 6-10 — Junior mid — 50th 11-15 — Senior mid — 75th 16-20 — Top — 90th The underlying assumption of this methodology is that the variation in civilian pharmacy salaries is driven primarily by YOP. [c] Based on sources and methodology described above, the following private-sector pharmacy cash compensation data were complied: Salaried Pharmacists: [d] $61,326 Entry-level $69,722 Junior mid-level $78,053 Senior mid-level $84,951 Top-level
Global Comments	MHS pharmacists' duties and responsibilities have changed in parallel with the civilian sector during the past decade as a result of the significant increase in new drug technologies and the increased utilization of pharmaceuticals. In addition, due to military-unique factors, MHS pharmacists believe they are facing longer hours, less job scheduling flexibility, and less time to spend with patients relative to their civilian counterparts. These military- unique factors include: ➢ 1) Increased number of pharmacy officer deployments ➢ 2) Significant and ongoing changes to the DoD pharmacy benefit, adding to the complexity and scope of administrative responsibilities	Civilian pharmacists have a more demanding work environment than in the past for the following reasons: ➢ 1) The number of prescriptions filled is up 50 percent 10 years; ➢ 2) Prescription practices by some managed care companies limit quantities to a 30-day supply rather than 90 days, thereby tripling the workload; ➢ 3) Pharmacy is heavily regulated, limiting the ability of managers to fill gaps with less-skilled workers; ➢ 4) Since drug costs have increased to 18 percent a year, profit margins have been shrinking, the business is based on volume---how

Appendix C
Specialty: Pharmacist

Element	Military Health System (MHS)	Private Sector
	➢ 3) Manning shortfalls.	many prescriptions a pharmacy can fill in a day; ➢ 5) Chain stores are expanding locations, days, and hours.

[a] RMC is composed of basic pay, basic allowance for housing, basic allowance for subsistence and the tax advantage accruing to the non-taxable nature of housing and subsistence allowances.
[b] Data prior to 2000 were adjusted by calculating the annual average of the BLS: *Employment Cost Indexes for the Civilian Wages and Salaries for Hospitals and for Health Services*. Based on this, 1997, 1998, and 1999 survey data were increased by 2.55, 2.75, and 3.75 percent, respectively.
[c] Civilian pharmacist YOP is equivalent to DoD YOS. Weaknesses to this approach include the inability to separate from the data the influences of regional variation, years in the profession, or significant trends associated with changes in starting salaries. Despite these weaknesses, we believe private-sector salaries by percentiles (25^{th}, 50^{th}, 75^{th}, 90^{th}) present a reasonable range within which it is possible to make valid comparisons to the uniformed health services' salary compensation.
[d] The attachment summarizes the private-sector pharmacy salary data.

CNA

Military Health System (MHS) Pharmacist

Based on Cash Compensation as of July 2000

Current End YOS (ACBD)	Years in Practice (YOP) as Specialist	Age	Grade*	Type of Military Service**	ADSC***	RMC	BCP****	TOTAL	AVERAGE MHS CASH COMPENSATION Based on:>>>>>>>>>>>>	# Years of Practice (YOP) as Specialist
1	1	25	O-3	SU	3	$46,115.52	$0	**$46,116**		
2	2	26		SU	2	$46,115.52	$2,000	**$48,116**		
3	3	27		SU	1	$49,360.81	$2,000	**$51,361**		
4	4	28		SU	0 (x)	$52,104.01	$2,000	**$54,104**		
5	5	29		SU		$55,128.01	$2,000	**$57,128**	**$51,365**	**1-5**
6	6	30		SU		$55,128.01	$2,000	**$57,128**		
7	7	31	O-4	SU		$57,064.35	$2,000	**$59,064**		
8	8	32		SU		$63,312.76	$2,000	**$65,313**		
9	9	33		SU		$65,565.16	$2,000	**$67,565**		
10	10	34		SU	(x)	$65,565.16	$2,500	**$68,065**	**$63,427**	**6-10**
11	11	35		SU		$69,295.30	$2,500	**$71,795**		
12	12	36	O-5	SU		$69,295.30	$3,000	**$72,295**		
13	13	37		SU		$77,636.70	$3,000	**$80,637**		
14	14	38		SU		$77,636.70	$4,000	**$81,637**		
15	15	39		SU		$81,944.86	$4,000	**$85,945**	**$78,462**	**11-15**
16	16	40		SU		$81,944.86	$4,000	**$85,945**		
17	17	41		SU		$86,077.62	$4,000	**$90,078**		
18	18	42	O-6	SU		$86,077.62	$5,000	**$91,078**		
19	19	43		SU		$97,489.60	$5,000	**$102,490**		
20	20	44		SU	(x)	$97,489.60	$5,000	**$102,490**	**$94,416**	**16-20**

* Promotion to O-4 occurs at end of YOS 7; to O-5 at end of YOS 12; to O-6 at end of YOS 18.

** Use this key to indicate the type of service for each year

SU Staff Utilization Tour

*** Active Duty Service Commitment at the end of the current year of service

**** Board Certified pay

CNA **Private-Sector Cash Compensation Sources: Pharmacist**

	Pharmacist (MHS vs Private Sector)			
	Entry	Jr. Midpoint	Sr. Midpoint	Top
	Level	Level	Level	Level
Years of Practice	1-5	6-10	11-15	16-20
MHS	$51,365	$63,427	$78,462	$94,416
Civilian	$61,326	$69,722	$78,053	$84,951
% Variance (MHS/Civ)	84%	91%	101%	111%
Civilian Calculation:				
Percentile	25th	50th	75th	90th
Warren	$61,775	$66,482	$72,950	$80,854
MGMA	$63,764	$70,703	$75,712	$79,474
Rx Weekly	$64,000	$71,111	$78,000	N/A
BLS	$55,764	$70,593	$85,549	$94,525
Avg	**$61,326**	**$69,722**	**$78,053**	**$84,951**

Pharmacy Comparison	
Median Salaries by Practice Setting	
MHS	$63,427 (6-10 Years of Practice)
Hospitals	$66,885
Chains	$69,829
Supermarket	$71,140
HMO	$69,807
Independent	$60,020

Civilian Calculation:				
	Rx Week	DrugTopics	BLS	Average
Hospitals	$68,800	$63,419	$68,435	$66,885
Chains	$73,778	$66,398	$69,310	$69,829
Supermarket	$73,778	$66,398	$73,245	$71,140
HMO	$70,161	$69,453	N/A	$69,807
Independent	N/A	$60,020	N/A	$60,020

Data Sources:

1/Warren Surveys: The HMO Salary Survey: Spring 2000. Rockford, IL 61114. 815.877.8794 www.demarcowarren.com Position: Staff Pharmacist

	# of Plans	# of Persons	25th	Mean	Median	75th	90th
2000	98	5,319	$61,775	$67,161	$66,482	$72,950	$80,854

2/Medical Group Management Association: MD Compensation and Production Survey: 2000 Report based on 1999 Data.

	# of Providers	Med Pract	Std Dev	25th	Mean	Median	75th	90th
1999	22	8	$8,308	$61,459	$66,894	$68,147	$72,975	$76,601
Adjusted for 2000*				$63,764	$69,403	$70,703	$75,712	$79,474

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

3/ Occupational Outlook Handbook: 2000-01. BLS: US Department of Labor, Pp. 203-205.

Median Earnings by Practice Setting		
	1997: Survey Data	
	1997	**2000***
Grocery	$67,000	$73,245
Chains	$63,400	$69,310
Hospital	$62,600	$68,435
Fed Govt	$61,700	$67,451

	10th	25th	Median	75th	90th
1999	$42,550	$52,310	$66,220	$80,250	$88,670
Adjusted for 2000*	$45,360	$55,764	$70,593	$85,549	$94,525

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services

Adjustment Index used in calculation is: 1998=2.55%; 1999=2.75%; 2000 = 3.75%.

CNA — Private-Sector Cash Compensation Sources: Pharmacist

4/Pharmacy OneSource, Inc. and Pharmacy Week, Inc.: Fall 2000 Salary Survey Results N = 1,711 Internet Self Report Survey.

*Pharmacists report that average work is 42 hours/week. Normalized = Base pay divided by the number of hours reported x 52 then multiplied the result by 2080 to normalize the data.

	Base	Normalized*
Avg	$74,297	$71,638
25th percentile	$66,530	$64,000
Median	$73,216	$71,111
75th percentile	$80,132	$78,000

By Degree: 2000

	Median
BS	$72,800
Pharm D	$72,800
Master's	$78,000

By Practice Setting: 2000

Practice Setting	Median Normalized*
Academic	$60,382
Ambulatory Care	$68,570
Home Health/Infusion	$73,067
Hospital	$68,800
Industry	$71,556
Long Term Care	$67,746
Mail Order	$65,811
Managed Care	$70,161
Nuclear	$73,724
PBM	$75,000
Psychiatric Hospital	$64,480
Retail	$73,778

Median Pay vs Experience

	2000
New Grad	$69,996
1-5 Yrs	$69,000
5-10 Yrs	$71,801
10-20 Yrs	$74,000

5/ Drug Topics/Hospital Pharmacists 1999 Salary Report: 1998 Data. Published by Medical Economics Co. N= 6,400 pharmacists w/response rate of 26%

Starting Base Salary

	Income '98	Income '00*
Independent	$49,633	$52,910
Mass-merch	$59,456	$63,382
Hospital	$50,410	$53,739
Chain	$59,761	$63,707
Supermarket	$59,235	$63,146
HMO	$56,883	$60,639
Overall	$55,313	$58,965

Average Salary

	Base Income	Income '00*
Independent	$56,302	$60,020
Mass-merch	$63,817	$68,031
Hospital	$59,491	$63,419
Chain	$62,285	$66,398
Supermarket	$62,285	$66,398
HMO	$65,151	$69,453

By Degree

	Average 1998	Average 00*
BS	$61,488	$65,548
Pharm D	$66,793	$71,203

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 1999 = 2.75%; 2000 = 3.75%.

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Appendix C
Specialty: Optometrist

Element	Military Health System (MHS)	Private Sector
Minimum Educational Accession Standard	The minimum educational accession standard for the MHS is a Doctor of Optometry (O.D.) degree accredited by the Council on Optometric Education of the American Optometric Association.	Same as stated in MHS.
Licensing Requirement	The MHS requirement is a current, valid unrestricted license within the first year of appointment. Military optometrists have up to 1 year to obtain a license and can practice on a military installation with a license that does not correspond to the state, territory or country where the military installation is located (e.g. licensed in New York but practices in Virginia).	The private sector requires optometrists to possess a corresponding current, full, and unrestricted license **prior** to practicing optometry within a given state or territory. Both the MHS and private-sector optometrist must renew their licenses every 1 to 3 years. In all states, continuing education credits are needed for renewal.
Average Number of Total Accessions (FY99—FY01)	The MHS most typically accesses about 35 optometrists per year. Historically, each service's direct procurement goals were greater than the actual number of optometrists that could be obtained.	According to the American Optometric Association (AOA), in 1999, 1,316 optometry students received regular O.D. degrees from 17 schools and colleges of optometry in the U.S. (including Puerto Rico). This is a slight increase from 1,237 degrees awarded in 1998. The average age of an optometry school graduate is 26-27. According to the AOA, 51 percent of new graduates in 1999 are women. If optometrists, upon graduation from optometry school, decide to pursue advanced competency residency training, they usually do so immediately after graduation.
Most Typical Accession Source	The primary accession source for all three services is via the Armed Forces Health Professions Scholarship program (AFHPSP) for 2, 3, or 4 years. The MHS has become reliant on this subsidization program due to the inability to directly procure the number of fully trained optometrists required. AFHPSP includes tuition, books, fees/equipment, and monthly stipend. On average, the DoD outlay for each AFHPSP scholarship is about $38,000 per subsidized year. DoD reinstated the AFHPSP for optometry in the early 1990s to counter the MHS's chronic inability to directly procure required accession numbers and to meet overall endstrength requirements. Limitations in the numbers of AFHPSP scholarships require the services to continue to attempt recruitment of direct accessions to meet requirements; however, even recruiting small numbers is difficult because of the increasingly high optometrist student debt load and the military-civilian pay gap.	Most new private-sector graduates open a new practice or join an established one. According to the AOA, the average educational debt load in 1990 was about $49,000; in 1996 it was about $82,000, and in 2000 debt loads of $100,000 to $110,000 are the norm. According to the AOA, the approximate percentage of income needed to cover the average student debt in 1990 was about 9 percent of the average civilian optometrist's salary. In 1996, it rose to about 13 percent and now is higher. According to the AOA, capital investment for a new practice averages $75,000.

Appendix C
Specialty: Optometrist

Element	Military Health System (MHS)	Private Sector
	The Navy supplements their total accession requirements with the Health Services Collegiate Program (HSCP), which provides students military E-3 pay and benefits while completing their last 2 years of optometric training in exchange for a 3-year active duty obligation. They have recently gotten approval for 3- and 4-year scholarships beginning FY02.	
Most Typical Work Setting	Most first-tour optometrists serve their first year as a staff optometrist in a multi-provider clinic. Follow-on assignments will typically be to a smaller clinic, generally overseas as the officer in charge or in charge of an optometry division or department in an MTF.	According to the 1999 AOA Economic Survey: ➢ 65 percent are in private practice ➢ 18.5 percent are involved with optical chains and superstores, mass merchandisers, department stores, etc. ➢ 7 percent are with HMOs/hospitals/clinics ➢ 7 percent are employed by an ophthalmologist or optometrist ➢ 2 percent are government/other.
Career Progression	Initial focus of newly accessed optometrists is directed towards solidifying clinical skills. Mid-career officers must also assume responsibilities of administrative, financial, and personnel management and military leadership duties. Senior-level optometrists must be willing to assume significant administrative duties in addition to maintaining clinical duties.	Self-employed optometrists in private practice also oversee a variety of administrative tasks, including bookkeeping and buying equipment and supplies. They may employ and supervise opticians, optical assistants, and receptionists. Employed optometrists' advancement opportunities may include administrative management, such as supervision of other optometrists and staff.
Most Typical Case Mix	Most typical case mix is the active duty population (ages 18-55); however, all age groups are part of the case mix depending on duty location.	Includes all types of population groups and case mixes.
Cash Compensation	Cash compensation for active duty MHS optometrists consists of regular military compensation (RMC),[a] board certification pay (BCP), and optometry special pay. BCP payments begin after the individual successfully obtains licensure and completes AOA certification requirements. The amounts vary by years of service ranging from $2,000 to $5,000. Optometry special pay is $100 per month for a total of $1200 established in 1971. To conduct a comparative compensation analysis between uniformed and private-sector optometrists, a career profile was established to represent the predominant or most typical experience for an MHS optometrist. The attachment summarizes this typical career profile and the cash compensation associated with that profile. **Assumptions Used in Career Profile**: 1) MHS optometrists are typically accessed via a service subsidized scholarship program with a typical commensurate active duty obligation of 3 years. 2) MHS optometrist receives 4 years of entry grade credit and is accessed	The following data sources were used to compile private-sector optometrist salaries: 1) Warren Surveys: The HMO Salary Survey: Spring 2000 Data. 2) MGMA: Physician Compensation and Productivity Survey: 2000 Report based on 1999 data. 3) RSM McGladrey, Inc., 1999 data. 4) BLS: Occupational Outlook Handbook (2001-01). Data based in 1998. 5) American Optometry Association: 1999: Economic Survey. Data based in 1998. Data from the civilian salary surveys described above were averaged to form the cash compensation data for private-sector optometrists. All data were adjusted to reflect 2000 dollars [b]. Civilian data sources rarely report compensation by years of practice (YOP). Most sources provide salary data by mean, median, and percentiles. Therefore, to make comparison to MHS optometrists, we use the reported civilian percentiles as proxies for the cash compensation of

Appendix C
Specialty: Optometrist

Element	Military Health System (MHS)	Private Sector
	as an 0-3 based on possession of a Doctor of Optometry (O.D.) degree. 3) Typical MHS optometrist is 26 years old upon accession. 4) Although the services offer limited fellowship or post-doctoral education opportunities, the MHS optometrist most typically serves in staff utilization tours after accession and is predominantly free of active duty service commitments (excluding promotions, permanent change of station assignments, etc.) after serving 3 years of commissioned service. 5) Promotion to 0-4 is assumed to occur at end of year of service (YOS) 7, 0-5 at end of YOS 12, and 0-6 at end of YOS 18. These flow points are consistent with Defense Officer Personnel Management Act guidelines.	civilian optometrists at various career junctures (or YOP bands): YOP / Level / Percentile 1-5 / Entry / 25th 6-10 / Junior mid / 50th 11-15 / Senior mid / 75th 16-20 / Top / 90th The underlying assumption of this methodology is that the variation in civilian optometrists salaries is driven primarily by YOP. [c] Based on the sources and methodology described above, the following private-sector optometry cash compensation data were compiled: Salaried optometrists: [d] $71,875 Entry-level $ 88,797 Junior mid-level $112,377 Senior mid-level $138,482 Top-level According to the 1999 AOA Economic Survey, employed ODs reported that the estimated median value of non-cash benefits (i.e., health and life insurance) paid on their behalf by their employers was $5,000 (mean = $7,397). The mean estimated retirement salary reduction was $5,000 (mean = $5,687).

[a] RMC is composed of basic pay, basic allowance for housing, basic allowance for subsistence, and the tax advantage accruing to the non-taxable nature of housing and subsistence allowances.
[b] Data prior to 2000 were adjusted by calculating the annual average of the BLS: Employment Cost Indexes for the Civilian Wages and Salaries for Hospitals and for Health Services. Based on this, 1997, 1998, and 1999 survey data were increased by 2.55, 2.75, and 3.75 percent, respectively.
[c] Civilian YOP is equal to MHS YOS. Weaknesses to this approach include the inability to separate from the data the influences of regional variation, years in the profession, or significant trends associated with changes in starting salaries. Despite these weaknesses, we believe private-sector salaries by percentiles (25th, 50th, 75th, 90th) present a reasonable range within which it is possible to make valid comparisons to the uniformed health services' salary compensation. Further support for this methodology is provided by the following AOA statement: *"In the civilian sector, optometrists' income tends to rise with the number of years in practice, reaching a plateau between 16-20 years."*
[d] The attachment summarizes the private-sector optometry salary data.

CNA **Military Health System (MHS) Optometrist**

Based on Cash Compensation as of July 2000

Current End YOS (ACBD)	Years in Practice (YOP) as Specialist	Age	Grade*	Type of Military Service**	ADSC***	RMC	BCP****	OSP*****	TOTAL	AVERAGE MHS CASH COMPENSATION Based on:>>>>>>>>>>	# Years of Practice (YOP) as Specialist
1	1	27	O-3	SU	3	$46,115.52	$0	$1,200	**$47,316**		
2	2	28		SU	2	$46,115.52	$0	$1,200	**$47,316**		
3	3	29		SU	1	$49,360.81	$2,000	$1,200	**$52,561**		
4	4	30		SU	0 (x)	$52,104.01	$2,000	$1,200	**$55,304**		
5	5	31		SU		$55,128.01	$2,000	$1,200	**$58,328**	$52,165	1-5
6	6	32		SU		$55,128.01	$2,000	$1,200	**$58,328**		
7	7	33	O-4	SU		$57,064.35	$2,000	$1,200	**$60,264**		
8	8	34		SU		$63,312.76	$2,000	$1,200	**$66,513**		
9	9	35		SU		$65,565.16	$2,000	$1,200	**$68,765**		
10	10	36		SU	(x)	$65,565.16	$2,500	$1,200	**$69,265**	$64,627	6-10
11	11	37		SU		$69,295.30	$2,500	$1,200	**$72,995**		
12	12	38	O-5	SU		$69,295.30	$3,000	$1,200	**$73,495**		
13	13	39		SU		$77,636.70	$3,000	$1,200	**$81,837**		
14	14	40		SU		$77,636.70	$4,000	$1,200	**$82,837**		
15	15	41		SU		$81,944.86	$4,000	$1,200	**$87,145**	$79,662	11-15
16	16	42		SU		$81,944.86	$4,000	$1,200	**$87,145**		
17	17	43		SU		$86,077.62	$4,000	$1,200	**$91,278**		
18	18	44	O-6	SU		$86,077.62	$5,000	$1,200	**$92,278**		
19	19	45		SU		$97,489.60	$5,000	$1,200	**$103,690**		
20	20	46		SU	(x)	$97,489.60	$5,000	$1,200	**$103,690**	$95,616	16-20

* Promotion to O-4 occurs at end of YOS 7; to O-5 at end of YOS 12; to O-6 at end of YOS 18

** Use this key to indicate the type of service for each year

SU Staff Utilization Tour

*** Active Duty Service Commitment at the end of the current year of service

**** Board Certified Pay

***** Optometry Special Pay

Attachment---Optometrist

	Optometrist (MHS vs Private Sector)			
	Entry	Jr. Midpoint	Sr. Midpoint	Top
	Level	Level	Level	Level
Years of Practice	1-5	6-10	11-15	16-20
MHS	$52,165	$64,627	$79,662	$95,616
Civilian	$71,875	$88,797	$112,377	$138,482
% Variance (MHS/Ci	73%	73%	71%	69%

Civilian Calculation:				
Percentile	25th	50th	75th	90th
Warren	$74,894	$78,790	$87,196	$91,412
MGMA	$80,271	$100,775	$124,303	$188,571
BLS	$58,632	$73,023	$99,887	$131,943
McGladrey	$76,287	$95,452	$114,047	$142,001
AOA	$69,292	$95,943	$136,452	N/A
Avg	**$71,875**	**$88,797**	**$112,377**	**$138,482**

Optometry: MHS vs Private Sector		
Net Income By Yrs in Practice		
Yrs in Prac	MHS	Civilian
5 or less	1-5	$69,292
6 to 10	6-10	$77,820
11 to 15	11-15	$95,943
16 to 20	16-20	$117,263

Optometry: MHS vs Private Sector	
Net Income By Practice Setting	
MHS	$64,627 (6-10 YOP)
HMO	$83,683
Opthalmologists	$85,283
Hos/Clinic/Oth	$91,679
Optical Chain	$106,603
Solo Practice	$106,603
2 person Practice	$123,660

Data Sources:

1/Warren Surveys: The HMO Salary Survey: Spring 2000. Rockford, IL 61114. 815.877.8794 www.demarcowarren.com

# of Plans	# of Persons	10th	25th	Mean	Median	75th	90th
51	505	$66,921	$74,894	$77,266	$78,790	$87,196	$91,412

2/Medical Group Management Association: MD Compensation and Production Survey: 2000 Report based on 1999 Data.

Provider Compensation

	Med Pract	# of Providers	Std Dev	25th	Mean	Median	75th	90th
1999	56	165	$56,313	$77,370	$110,723	$97,133	$119,810	$181,755
Adjusted for 2000*				$80,271	$114,875	$100,775	$124,303	$188,571

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

3/Occupational Outlook Handbook: 2000-01. BLS: US Department of Labor, Pp. 192-3.

Salaried	10th	***25th	Median	75th	90th
1998: Survey Data	$24,820	$55,000	$68,500	$93,700	$123,770
2000: Adjusted*	$26,459	$58,632	$73,023	$99,887	$131,943

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculations are: 1999 = 2.75%; 2000 = 3.75%.

*** Original data $46,639: Substituted starting salary as published by BLS.

4/RSM McGladrey, Inc: 1999 Data

Only 20th and 80th percentiles published. Substituted RMcGladrey 20th and 80th percentiles for 25th and 75th percentile in civilian calculation.

Groups	Respondents	Std Dev	20th	Mean	Median	80th	90th
46	189	$29,616	$73,530	$96,489	$92,002	$109,925	$136,868

CNA — Private-Sector Cash Compensation Sources: Optometrist

2000: Adjusted*	$76,287	$100,107	$95,452	$114,047	$142,001

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

5/ American Optometry Association: Economic Survey, 1999. Based on 1998 Data.

Income by Practice Setting:

	Income '98	Income '00*
Self-Employed	$98,000	$104,471
Corporate	$81,000	$86,349
Both	$90,000	$95,943

All Optometrists

	25th	Mean	Median	75th
1998	$65,000	$108,262	$90,000	$128,000
2000 Adj.	$69,292	$115,411	$95,943	$136,452

Total Median Net Income By Practice Type, 1998

		1998	Adj 2000*
Self-Employed			
	Solo	$100,000	$106,603
	2 person	$116,000	$123,660
Employed by			
	Hos/Clinic/Oth	$86,000	$91,679
	Optical Chain	$100,000	$106,603
	Opthalmologists	$80,000	$85,283
	HMO	$78,500	$83,683

Total Median Net Income By Yrs in Practice, 1998

Yrs in Prac	1998	Adj 2000*
5 or less	$65,000	$69,292
6 to 10	$73,000	$77,820
11 to 15	$90,000	$95,943
16 to 20	$110,000	$117,263

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 1999 =2.75%; 2000 = 3.75%.

Appendix C
Specialty: Clinical Psychologist

Minimum Educational Accession Standard	The minimum educational accession standard for the MHS is a Doctorate in Clinical Psychology (either a PhD or a PsyD) accredited by the American Psychological Association (APA).	The educational requirement is the same as stated in MHS.
Licensing Requirement	The MHS requirement for Army and Air Force is a current, valid unrestricted state license within 36 months after completing active duty clinical internship program (CIP); Navy's requirement is 24 months after completion of CIP.	Psychologists in independent practice or those who offer any type of patient care, including clinical psychologists, must meet certification or licensing requirement in all states and the District of Columbia. Licensing laws vary by state and type of position. Clinical and counseling psychologists usually require a Doctorate in Psychology, completion of an approved internship, and 1 to 2 years of professional experience. In addition, all states require that applicants pass an examination. Some states require continuing education for license renewal. According to the American Psychological Association (APA), the vast majority of psychologists trained in health service provision do become licensed by a state licensing board. Board certification involves training in an area of specialization beyond the Doctorate and is not necessary for general practice in psychology. The American Board of Professional Psychology (ABPP) recognizes professional achievement by awarding certification, primarily in clinical psychology, clinical neuropsychology, and school psychology. Candidates for the ABPP certification need a Doctorate in Psychology, 5 years of experience, professional endorsements, and a passing grade on an examination. According to the 1999 APA membership survey responses (86,969), less than 2.5 percent of APA's membership has ABPP certification.
Average Number of Total Accessions (FY99—FY01)	The MHS most typically accesses about 53 active duty clinical psychologists per year. The Air Force and Navy rely on the clinical internship program (CIP) for the vast majority of their accessions. The Army typically accesses about 60 percent of its accession requirements via the AFHPSP in combination with the clinical internship program for the remainder. Based on the active duty CIP, the MHS does not have difficulty meeting the majority of its total accession requirements. The MHS typically does not have difficulty accessing clinical psychologists because of the quality of its active duty clinical internship programs. The Air Force and Navy report difficulty retaining these specialists upon completion of their initial active duty obligation.	According to the APA Survey of Graduate Departments of Psychology for 1998-1999 (May 2000): 2,664 (PhD and PsyD) Doctorates were awarded. Of the 1999 new Doctorates in Psychology: ➢ 75 percent were PhD ➢ 23 percent were PsyD ➢ 41 percent of doctorates' major field of study was clinical. According to the National Science Foundation: Division of Science Resources Studies (4/28/00), Psychology PhD recipients were more likely to incur debt and incurred higher levels of debt than PhD recipients in other social and economic sciences. ➢ According to the 1997 APA Graduate Survey: 44 percent of doctorates in the clinical psychology field report debt over $30,000.

Appendix C
Specialty: Clinical Psychologist

Most Typical Accession Source	Primary accession source for the three services is direct procurement with a guaranteed active duty clinical internship program (CIP) seat. Although the CIP requires no subsidization prior to accession, the cash compensation for the internship year is significantly greater than the cash compensation their civilian counterparts receive while in an internship status. Typical active duty obligation following completion of the CIP is 3 years. The internship year is a degree requirement for all clinical psychologists. Regular military compensation for the typical accession at pay grade 03 under 2 years is about $46,000.	According to the 1997 Doctorate Employment Survey (1999): ➢ 67 percent of new graduates from the health service provider sub-fields were employed full time ➢ About 14 percent were employed part time ➢ 34 percent of the 1997 doctorate recipients indicated they were pursuing or had completed post-doctorate study. New graduates employed full time in the broad category of human services settings included: ➢ 19 percent in hospitals ➢ 18 percent in rehabilitation centers/nursing homes ➢ 15 percent in managed care settings According to Association of Psychology Post-doctoral and Internship Centers (APPIC), for the internship year (the year that students must spend before the doctorate is awarded) – the average pay varies from $12,000 to $19,000. For the post-doctorate year of supervision, the average salary ranges from $21,000 to just under $40,000. About 35 percent of the new doctorates were in their present employment position prior to completing graduate school, while an additional 34 percent obtained employment within 3 months of completing the doctoral program. The American Psychological Association Council of Representatives established a new commission on how to create independent practice status for PhD graduates who have not yet completed their post-doctoral work.
Most Typical Work Setting	Most first-tour clinical psychologists are assigned to a major treatment facility with a core of more experienced specialists. Once these specialists successfully complete their internship and licensing requirements, follow-on assignments are usually more independent in nature, often as the sole psychologist at clinics, deployable units, and smaller MTFs overseas or in remote areas.	According to the APA's 1999 Salaries in Psychology: ➢ 54 percent of clinical psychologists worked in an individual or group psychological practice, ➢ 22 percent worked in a medical psychological group practice, ➢ 16 percent worked in community mental health centers ➢ 6 percent worked in rehabilitation facilities.
Career Progression	Initial focus of newly accessed clinical psychologists is clinical proficiency. Mid-career officers must also assume administrative, financial, personnel management, and military leadership duties. Specialty fellowships are generally offered at mid-career. Senior-level psychologists must be willing to assume significant administrative/leadership responsibilities in addition to maintaining clinical skills.	Generally, half of clinical psychologists are in independent practice, private research, or consulting firms. Other areas of employment are hospitals, rehabilitation centers/nursing homes, community health centers, and managed care settings.

Appendix C
Specialty: Clinical Psychologist

	The MHS offers several clinical psychology fellowships such as pediatrics and neuro-psychology. Once these officers specialize, they may be assigned to a wide range of duties, including academic health centers or overseas tours in support of the Defense Department Overseas School System. They may eventually have to return to the role as a general clinical psychologist because of billet-body rotation issues.	
Most Typical Case Mix	Most typical case mix is often contingent on the type of billet or assignment the officer is serving in (e.g., from an aircraft carrier serving only active duty forces to a large academic health center, such as Walter Reed, serving a wide range of beneficiaries). Case mix usually reflects primarily active duty (ages 18-55) and/or all ages of family members and retirees.	All types of population are treated dependent on the interest and training of the clinical psychologist.
Cash Compensation	Cash compensation for active duty MHS clinical psychologists consists of regular military compensation (RMC)[a] and board certification pay (BCP). BCP payments begin after the individual successfully completes board certification examination, and the amounts vary by years of service ranging from $2,000 to $5,000. To conduct a comparative compensation analysis between a uniformed and a private-sector clinical psychologist, a career profile was established to represent the predominant or most typical experience for a MHS psychologist. The attachment summarizes this typical career profile and the cash compensation associated with that profile. **Assumptions Used in Career Profile**: 1) The MHS clinical psychologist is typically directly procured with a commensurate active duty obligation of 3 years, following the first year of internship. 2) MHS clinical psychologists receive 4 years' entry grade credit and are accessed as an 0-3 based on possession of a Doctor of Clinical Psychology degree. 3) Typical MHS clinical psychologist is 28 years old upon accession. 4) Although the services offer limited post-doctoral fellowships, the MHS clinical psychologist most typically serves in staff utilization tours after accession and is virtually free of active duty service commitments (excluding promotions, permanent change of station assignments, etc.) after serving 4 years of commissioned service. 5) Promotion to 0-4 is assumed to occur at end of year of service (YOS) 7, 0-5 at end of YOS 12, and 0-6 at end of YOS 18. These flow points are consistent with published Defense Officer Personnel Management Act guidelines. The vast majority of MHS clinical psychologists do not become board certified.	The following data sources were used to compile civilian-sector clinical psychologist salaries: 1) American Psychological Association (APA): 1999 Salaries in Psychology. 2) Warren Surveys: The HMO Salary Survey: Spring 2000 Data. 3) MGMA: Physician Compensation and Productivity Survey: 2000 Report based on 1999 data. Data from the civilian salary surveys described above were averaged to form the cash compensation data for private-sector clinical psychologists. All data were adjusted to reflect 2000 dollars. [b] Civilian data sources rarely report compensation by years in practice (YOP). Most sources provide salary data by mean, median, and percentiles. Therefore, to make comparisons to MHS clinical psychologists, we use the reported civilian percentiles as proxies for the cash compensation of civilian clinical psychologists at various career junctures (or YOP) bands: YOP — Level — Percentile 1-5 — Entry — 25th 6-10 — Junior mid — 50th 11-15 — Senior mid — 75th 16-20 — Top — 90th The underlying assumption of this methodology is that the variation in civilian clinical psychologist salaries is driven primarily by YOP. [c] Based on the sources and methodology described above, the following private-sector clinical psychologist cash compensation data were compiled: Salaried Clinical Psychologists:[d]

		$56,899 Entry-level $71,787 Junior mid-level $89,134 Senior mid-level $110,687 Top-level According to the APA's 1999 Salaries in Psychology, 53 percent of independent practitioners experienced a decrease in salary due to the changes in the health care system (i.e., managed care).
Global Comments	The MHS clinical psychologist is unable to practice independently until licensed. All three services provide the first year of internship and additional time to meet licensing requirements, which can potentially take up to the officer's first leave-stay-military-decision point. The Army's addition of the HPSP to gain accessions, and the Voluntary Indefinite program (creating a 12 month active duty obligation) at a critical juncture has aided them in retaining psychologists past this juncture and into independent practice. A challenge facing the Air Force community is the conversion from psychiatry to clinical psychology billets, increasing the requirement for independent, licensed clinical psychologists.	

[a] RMC is composed of basic pay, basic allowance for housing, basic allowance for subsistence, and the tax advantage accruing to the non-taxable nature of housing and subsistence allowances.
[b] Data prior to 2000 were adjusted by calculating the annual average of the BLS: Employment Cost Indexes for the Civilian Wages and Salaries for Hospitals and for Health Services. Based on this, 1997, 1998, and 1999 survey data were increased by 2.55, 2.75, and 3.75 percent, respectively.
[c] The civilian clinical psychologist's year of practice (YOP) is equal to the MHS year of service (YOS). Weaknesses to this approach include the inability to separate from the data the influences of regional variation, years in the profession, or significant trends associated with changes in starting salaries. Despite these weaknesses, we believe private-sector salaries by percentiles (25^{th}, 50^{th}, 75^{th}, 90^{th}) present a reasonable range within which it is possible to make valid comparisons to the uniformed health services' salary compensation.
[d] The attachment summarizes the private-sector clinical psychologist salary data.

CNA — **Military Health System (MHS) Clinical Psychologist**

Based on Compensation as of July 2000

Current End YOS	Years in Practice (YOP) as Specialist	Age	Grade*	Type of Military Service**	ADSC***	RMC	BCP****	TOTAL	AVERAGE MHS CASH COMPENSATION Based on:>>>>>>>>>	# Years of Practice (YOP) as Specialist
1	1	29	O-3	Internship	4	$46,115.52	$0	**$46,116**		
2	2	30		SU	3	$46,115.52	$0	**$46,116**		
3	3	31		SU	2	$49,360.81	$0	**$49,361**		
4	4	32		SU	1	$52,104.01	$0	**$52,104**	$49,193	2-4
5	5	33		SU	0 (x)	$55,128.01	$0	**$55,128**	$49,765	1-5
6	6	34		SU		$55,128.01	$2,000	**$57,128**		
7	7	35	O-4	SU		$57,064.35	$2,000	**$59,064**		
8	8	36		SU		$63,312.76	$2,000	**$65,313**		
9	9	37		SU		$65,565.16	$2,000	**$67,565**	$60,840	5-9
10	10	38		SU	(x)	$65,565.16	$2,500	**$68,065**	$63,427	6-10
11	11	39		SU		$69,295.30	$2,500	**$71,795**		
12	12	40	O-5	SU		$69,295.30	$3,000	**$72,295**		
13	13	41		SU		$77,636.70	$3,000	**$80,637**		
14	14	42		SU		$77,636.70	$4,000	**$81,637**	$74,886	10-14
15	15	43		SU		$81,944.86	$4,000	**$85,945**	$78,462	10-15
16	16	44		SU		$81,944.86	$4,000	**$85,945**		
17	17	45		SU		$86,077.62	$4,000	**$90,078**		
18	18	46	O-6	SU		$86,077.62	$5,000	**$91,078**		
19	19	47		SU		$97,489.60	$5,000	**$102,490**	$91,107	15-19
20	20	48		SU	(x)	$97,489.60	$5,000	**$102,490**	$94,416	16-20

* Promotion to O-4 occurs at end of YOS 7; to O-5 at end of YOS 12; to O-6 at end of YOS 18

** Use this key to indicate the type of service for each year

SU — Staff Utilization Tour

*** Active Duty Service Commitment at the end of the current year of service

**** Board Certified Pay

CNA Private-Sector Cash Compensation Sources: Clinical Psychologist

	Clinical Psychology (MHS vs Private Sector)			
	Entry Level	Jr. Midpoint Level	Sr. Midpoint Level	Top Level
Years of Experience	[illegible]	[illegible]	[illegible]	[illegible]
MHS	$49,765	$63,427	$78,462	$94,416
Civilian	$56,899	$71,787	$89,134	$110,687
% Variance (MHS/C	87%	88%	88%	85%
Civilian Calculation:				
Percentile	25th	50th	75th	90th
Warren	$55,368	$68,557	$88,190	$110,250
MGMA	$62,171	$73,144	$88,329	$111,125
APA	$53,159	$73,661	$90,883	N/A
Avg	**$56,899**	**$71,787**	**$89,134**	**$110,687**

Starting Salaries by Employer for Clinical Psych	
MHS	$46,116
Hospital	$47,971
Psy Hosp	$46,372
Group Pr	$40,509
Outp Clinic	$43,174
CMHC	$38,377
Crml Justi	$44,773

Group Practice By Years of Experience		
Years of Experience	MHS	Civilian
[illegible]	$49,193	$49,593
[illegible]	$60,840	$65,570
[illegible]	$74,886	$77,678
[illegible]	$91,107	$86,476

Data Sources:

1/Warren Surveys: The HMO Salary Survey: Spring 2000. Rockford, IL 61114. 815.877.8794 www.demarcowarren.com

Position: Clinical Psychologists: PhD.

# of Plans	# of Persons	10th	25th	Mean	Median	75th	90th
98	1499	$47,509	$55,368	$75,110	$68,557	$88,190	$110,250

2/Medical Group Management Association: MD Compensation and Production Survey: 2000 Report based on 1999 Data.

Med Pract	# of Persons	Std Dev	25th	Mean	Median	75th	90th
28	104	$20,556	$59,924	$73,529	$70,500	$85,136	$107,108
Adjusted for 2000*			$62,171	$76,286	$73,144	$88,329	$111,125

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

3/American Psychological Association, Research Office: "1999 Salaries in Psychology". Sample: 20,000 *Data adjusted by the BLS: Employment Cost Index: the average of Wages and Sala

Clinical Psychology: Doctoral Level, 11-12 month Salaries for Selected Settings: 1999 Response Rate = 51% for hospitals and health services. Adjustment Index used in calculation is:2000 = 3.7

Psychological Medical Group

	25th	Mean	Median	75th	N
2-4 yrs	$50,000	$59,000	$59,500	$65,000	6
5-9 yrs	$60,000	$78,500	$68,000	$85,000	10
10-14 yrs	$56,000	$78,278	$66,500	$80,000	18
15-19yrs	$65,000	$81,125	$77,500	$99,250	8
					42

Psychological Group Practice

	25th	Mean	Median	75th	N
2-4 yrs	$27,750	$43,556	$40,000	$60,000	9
5-9 yrs	$51,000	$67,667	$60,000	$91,000	15
10-14 yrs	$47,250	$81,759	$80,000	$95,500	29
15-19yrs	$55,500	$80,429	$85,000	$97,500	28
					81

Combination of Group Psychological Practice and Medical Group Practice By Years of Total Experi

	(Weighted)	25th	Mean	Median	75th	N	
2-4 yrs	40%	$36,650	$49,734	$47,800	$62,000	15	12%
5-9 yrs	40%	$54,600	$72,000	$63,200	$88,600	25	20%
10-14 yrs	38%	$50,575	$80,436	$74,870	$89,610	47	38%
15-19yrs	22%	$57,590	$80,582	$83,350	$97,885	36	29%
						123	

Adjusted for 2000:Combination of Group Psychological Practice and Medical Group*

	25th	Mean	Median	75th
2-4 yrs	$38,024	$51,599	$49,593	$64,325
5-9 yrs	$56,648	$74,700	$65,570	$91,923
10-14 yrs	$52,472	$83,453	$77,678	$92,970
15-19yrs	$59,750	$83,604	$86,476	$101,556
Overall Weigt	$53,159	$77,089	$73,661	$90,883

**Starting Salaries by Employer for Clinical Psych

	1998	Adj 2000*		1998	Adj 2000*
Hospital	$45,000	$47,971	Outp Clinic	$40,500	$43,174
Psy Hosp	$43,500	$46,372	CMHC	$36,000	$38,377
Group Pr	$38,000	$40,509	Crml Justi	$42,000	$44,773

**1997 Doctorate Employment Survey: 1998 salaries

Appendix C
Specialty: Physician Assistant

Element	Military Health System (MHS)	Private Sector
Minimum Educational Accession Standard	The minimum educational accession standard for the MHS is a Bachelor of Science Degree from an accredited Physician Assistant (PA) program and certification within 1 year from appointment. The Army allows 2 years to obtain certification because of the remoteness of duty assignments.	The educational requirement is graduation from an accredited PA education program and passing certification exam before practicing in the private sector. PA programs have the flexibility to offer a variety of academic degrees. Only graduates of accredited programs are eligible to sit for the Physician Assistant National Certifying Exam. According to the 2000 American Academy of Physician Assistants (AAPA) Census Survey sent to 42,762 eligible PA practitioners with a 43- percent response rate: ➢ 67 percent of respondents had a Bachelor's degree before entering PA school ➢ 53 percent received a Bachelor's degree from the PA school ➢ 13.8 percent received a Master's level PA degree. Currently, of the 126 accredited PA programs: ➢ 44 percent award certificates (there are 9 programs that offer only a certificate) ➢ 6 percent offer Associate degrees ➢ 56 percent award Bachelor's degrees or a Bachelor's degree option ➢ 41 percent award Master's degrees or a Master's degree option (some programs offer more than one option). At the 2000 House of Delegates Meeting in Chicago, two major resolutions were passed that pertained to the degree recommended to be awarded upon the completion of the PA program. Both resolutions recommended that a Master's degree be the awarded degree. The designation of a Master's degree has not yet been mandated in the guidelines as the discussion continues. Effective 1 January 2001, the Commission on Accreditation of Allied Health Education Programs (CAAHEP) is no longer accrediting PA educational programs. Current accreditation will be under the Accreditation Review Commission on Education of the Physician Assistant.
Licensing Requirement	National Commission on Certification of Physician Assistants (NCCPA) is the certifying agency. To retain certification, individuals must obtain 100 continuing medical education units every 2 years and recertify every 6 years. MHS PAs are required to recertify in order to maintain status, whether actively practicing or in a management position.	Same as stated in MHS. According to the AAPA, 90 percent of PAs maintain certification. Private-sector PAs have other opportunities, such as administration, and may not recertify. Recertification every 2 years requires 100 hours of

Appendix C
Specialty: Physician Assistant

Element	Military Health System (MHS)	Private Sector
		continuing medical education. At the 6-year period, all must take a recertification exam.
Average Number of Total Accessions (FY99—FY01)	The MHS most typically accesses about 117 Physician Assistants per year. Although the MHS generally does not have difficulty meeting the majority of its total accession requirements, the Army reports experiencing more difficulty than the other two services because of the more intense operational environment of its billet structure.	According to AAPA, in 1999 about 4,000 PAs graduated. It is estimated that in 2000 graduates of PA programs will increase to 4,500.
Most Typical Accession Source	Primary accession source for all three services is via the active duty enlisted commissioning program at the Interservice Physician Assistant Program (IPAP) at Ft. Sam Houston, Texas. Individuals entering this program most typically have at least 10 years of federal service, are about 30 years old, and have a background in allied health. MHS PA community is about 84 percent male.	The typical civilian student entering a PA program is a 30-year-old college graduate with over 4 years of prior health care experience, usually as a paramedic, nurse, military corpsman, respiratory therapist, or other related occupations. About 60 percent of the 1999 PA graduating class was female According to the 16th Annual Report on PA Programs, about 73 percent of all 1999 graduates from a PA program were employed as a PA in less than a year (15 percent of the 1999 PA graduates had an unknown employment status).
Most Typical Work Setting	Most first-tour Air Force and Navy PAs initially serve in primary care clinics, while most Army PAs serve in frontline combat battalions. Follow-on duty for MHS PAs may include overseas deployments, smaller, isolated clinics, and shipboard duty for Navy, and combat assignments for Army. Physician supervision for practice as an MHS PA is set at the national level. However, because of the locations and types of assignments, direct oversight and peer review is sometimes accomplished in a non-traditional fashion by telephone/radio contact or periodic site visits. Pursuant to DoD policy, physician assistants serve as primary care managers in medical treatment facilities, although some are beginning to receive specialty training via fellowship opportunities. The ability to prescribe medications and narcotics varies by service, and has often varied by MTF where each individual credential file outlined the authorized medications that a PA could prescribe. The typical MHS PA works at least 40–50 hours week. Hours worked vary based on duty assignment, services offered, and watch bill	PAs primarily work in outpatient settings. Sixty-seven percent of PA jobs are in offices and clinics of MDs, dentists, or other health practitioners, while 21 percent are in hospitals. The rest are mostly in public health clinics, nursing homes, prisons, home health care agencies, and the Veterans' Administration. In the civilian sector, 14 percent of all PAs practice in small rural communities where they may be the only full-time providers of care (state laws stipulate the conditions for remote supervision by a physician). Twenty-one percent of the PAs practice in large urban and inner city areas. In addition, the duties of physician assistants are determined by the supervising physician and by state law. Forty-seven states plus the District of Columbia now permit delegated prescribing or transmittal of prescription orders by PAs (39 of which include controlled substances as part of this authority). According to the AAPA: 2000 Census Survey, PAs who graduated in or after 1999 worked an average of 45.4 hours per week (45 = median), and 28 percent reported taking some call duties. The average mean hours on call per month were 99 (72 = median).

Appendix C
Specialty: Physician Assistant

Element	Military Health System (MHS)	Private Sector
	assignments. Those PAs assigned to operational settings often have extended workweeks.	
Career Progression	Initial focus of newly accessed PAs is directed towards solidifying clinical skills albeit in diverse work settings. Following the first tour, the MHS PA may be granted a fellowship opportunity specializing in such areas as orthopedics, or may formally complete a graduate degree. Mid-level and senior PAs must also assume additional responsibilities of administrative, financial, personnel management, and military leadership duties. Specialization within the MHS PA community is not formally recognized by certification.	The PA profession is a mid-career option for many health professionals. Advancement opportunities may include administrative management, such as the supervision of other PAs and clinical staff. Some PAs pursue postgraduate residency programs in order to practice in a specialty area, such as surgery, psychiatry, critical care, or emergency medicine; however, it is a very small percentage. Most civilian PAs learn a specialty through on-site practice/instruction rather than formal residency training. Specialization within the private- sector PA community is not formally recognized by certification. In the civilian sector, the growth of the "hospitalists" (working in a hospital setting vice a clinic) has provided employment opportunities for Physician Assistants to serve on inpatient wards. In addition, teaching hospitals faced with the loss of traditional physician residencies are increasingly turning to PAs to fill slots once held by residents.
Most Typical Case Mix	Most typical case mix is the active duty population (ages 18-55). Those assigned to primary care clinics within an MTF or ambulatory care clinic will see a more diverse population of all age groups, whereas Army PAs who serve immediately in frontline combat battalions or Navy PAs serving shipboard will see an active duty population (ages 18-55).	The majority of PAs are in primary care: one-quarter practice in surgical specialties.
Cash Compensation	Cash compensation for active duty MHS Physician Assistants consists of regular military compensation (RMC)[a] and board certification pay (BCP). BCP payments begin after an individual successfully completes board certification examinations, and the amounts vary by commissioned years of service ranging from $2,000 to $5,000. To conduct a comparative compensation analysis between uniformed and private- sector PAs, a career profile was established to represent the predominant or most typical experience for an MHS PA. The attached attachment summarizes this typical career profile and the cash compensation associated with that profile. **Assumptions Used in Career Profile:** 1) Typical MHS physician assistant is competitively selected from the	The following data sources were used to compile civilian sector PA salaries: 1) Warren Surveys: The HMO Salary Survey: Spring 2000 Data. 2) BLS Occupational Outlook Handbook (2001-01). Data based on 1998. 3) RSM McGladrey, Inc. 1999 Data. 4) Hospital and Healthcare Compensation Service: 1999 Data. 5) American Academy of Physician Assistants: 1999 Data. 6) Medical Group Management Association (MGMA): 1999 data. Data from the civilian salary surveys described above were averaged to form the cash compensation data for private-sector physician assistants. All data were adjusted to reflect 2000 dollars.[b] Civilian data sources rarely report compensation by years of practice (YOP).

Element	Military Health System (MHS)	Private Sector
	enlisted workforce to attend the subsidized Interservice Physician Assistant Program (IPAP) at Ft. Sam Houston, Texas. Typical active duty service obligation to attend IPAP and attain B.S. degree is 4 years. 2) The typical newly trained MHS PA is about 30 years old with about 11 years of federal service. 3) Upon successful completion of the IPAP program, the PA is commissioned as a 01-E. 4) Although the services offer some non-degree specialty training programs and graduate education opportunities, the MHS PA is predominately assigned to staff utilization tours upon completion of specialty degree. After these specialists satisfy their initial active duty obligation for PA training, they are virtually free of active duty service commitments (excluding promotions, permanent change of station assignments, etc.). 5) Promotion to 02-E is assumed to occur at end of 2 years of active commissioned service, 03-E at end of 4 years of active commissioned service, and 04 and 05 at end of 11 and 16 years of commissioned service, respectively. DoD attempts to send all of its providers to at least one CME conference annually contingent upon availability of funds.	Most sources provide salary data by mean, median, and percentiles. Therefore, to make comparison to MHS PAs, we use the reported civilian percentiles as proxies for the cash compensation of civilian PAs at various career junctures (or YOP bands): YOP Level Percentile 1-5 Entry 25th 6-10 Junior mid 50th 11-15 Senior mid 75th 16-20 Top 90th The underlying assumption of this methodology is that the variation in civilian PA salaries is driven primarily by YOP.[c] Based on the sources and methodology described above, the following private-sector Physician Assistant cash compensation data were compiled: Salaried PAs:[d] $58,897 Entry-level $62,974 Junior mid-level $74,025 Senior mid-level $85,963 Top-level According to the AAPA: 2000 Census Survey, most PAs were paid salary only. A March 2000 MGMA survey of physician offices revealed that 62 percent of PAs were paid salary only, while 35 percent of PAs were paid salary plus a bonus. Bonuses were typically received in the form of profit sharing or after an account receivable threshold was achieved. According to the AAPA 2000 Census, most PAs are offered paid leave for vacations (95 percent), illness (77 percent), and CME programs (83 percent) by their primary employers. The median number of days offered per year for these types of leave are 15, 9, and 5, respectively. Professional liability insurance is the most commonly reimbursed fringe benefit for PAs where the employer pays 95 percent-plus. Other benefits paid by the employer 95 percent-plus include: individual health insurance,

Appendix C
Specialty: Physician Assistant

Element	Military Health System (MHS)	Private Sector
		state license fees, DEA registration, NCCPA fees, AAPA dues, state PA dues, AAPA conference dues, and credentialing fees. Also, one of the benefits that most employers provide PAs is funding for continuing medical education (CME) programs. According to the 2000 AAPA census survey, 85 percent of PAs receive CME funding from their primary employer. The median amount of CME funds available by a PA's employer is $1,500.
Global Comments	Historically, PAs were commissioned as Warrant Officers during the 1980s and early 1990s, so they are a relatively new commissioned corps within the MHS allied medical sciences. The service's individual policies and programs evolved over the last two decades leading to the consolidation of MHS PA training in 1996 into an interservice training program at Ft. Sam Houston, Texas. MHS PAs are typically retirement eligible once they reach 0-4 with 10 years' commissioned service, leaving the MHS PA community without significant senior leadership. Additional struggles revolve around the move to increase degree requirements to the graduate level.	

[a] RMC is composed of basic pay, basic allowance for housing, basic allowance for subsistence, and the tax advantage accruing to the non-taxable nature of housing and subsistence allowances.
[b] Data prior to 2000 were adjusted by calculating the annual average of the BLS: Employment Cost Indexes for the Civilian Wages and Salaries for Hospitals and for Health Services. Based on this, 1997, 1998, and 1999 survey data were increased by 2.55, 2.75, and 3.75 percent, respectively.
[c] Civilian PA YOP = DoD YOS; 11-15 YOS = entry level; 16-20 YOS = Jr mid-level; 21-25 YOS = Sr mid-level; 26-30 YOS = Top level. Weaknesses to this approach include the inability to separate from the data the influences of regional variation, years in the profession, or significant trends associated with changes in starting salaries. Despite these weaknesses, we believe private-sector salaries by percentiles (25^{th}, 50^{th}, 75^{th}, 90^{th}) present a reasonable range within which it is possible to make valid comparisons to the uniformed health services' salary compensation. Moreover, limited civilian data by years of experience suggest an upward sloping wage tenure profile that supports our methodology.
[d] The attachment summarizes the private-sector PA salary data.

CNA **Military Health System (MHS) Physician Assistant**

Based on Cash Compensation as of July 2000

Current End YOS (ADBD)	Years in Practice (YOP) as Specialist	Age	Grade*	Type of Military Service**	ADSC***	RMC	BCP****	TOTAL	AVERAGE MHS CASH COMPENSATION Based on:>>>>>>>>	# Years of Practice (YOP) as Specialist
11	1	31	O-1E	SU	3	$46,999.31	$0	**$46,999**		
12	2	32	0-2E	SU	2	$56,274.76	$0	**$56,275**	$51,637	1-2
13	3	33	0-2E	SU	1	$56,274.76	$0	**$56,275**		
14	4	34	0-3E	SU	0 (x)	$64,762.72	$2,000	**$66,763**		
15	5	35	0-3E	SU		$66,899.40	$2,000	**$68,899**	$59,042	1-5
16	6	36	0-3E	SU		$68,129.18	$2,000	**$70,129**		
17	7	37	0-3E	SU		$68,129.18	$2,000	**$70,129**	$66,439	3-7
18	8	38	0-3E	SU		$69,813.72	$2,000	**$71,814**		
19	9	39	0-3E	SU		$69,813.72	$2,000	**$71,814**		
20	10	40	0-3E	SU	(x)	$69,813.72	$2,500	**$72,314**	$71,240	6-10
21	11	41	O-4	SU		$77,007.16	$2,500	**$79,507**		
22	12	42	O-4	SU		$77,007.16	$3,000	**$80,007**		
23	13	43	O-4	SU		$77,007.16	$3,000	**$80,007**	$79,439	8-17
24	14	44	O-4	SU		$77,007.16	$4,000	**$81,007**		
25	15	45	O-4	SU		$77,007.16	$4,000	**$81,007**	$80,307	11-15
26	16	46	O-5	SU		$77,097.16	$4,000	**$81,097**		
27	17	47	O-5	SU		$91,813.05	$4,000	**$95,813**		
28	18	48	O-5	SU		$91,813.05	$5,000	**$96,813**		
29	19	49	O-5	SU		$91,813.05	$5,000	**$96,813**		
30	20	50	O-5	SU	(x)	$91,813.05	$5,000	**$96,813**	$93,470	16-20

Active Duty Base Date

*Promotion to 0-2E occurs at end of 2 years of Years of Practice

*Promotion to 0-3E occurs at end of 4 years of Years of Practice

*Promotion to 0-4 occurs at end of 11 years of Years of Practice

*Promotion to 0-5 occurs at end of 16 years of Years of Practi

**SU = Staff UtilizationTour

***Active Duty Service Commitment

****Board Certified Pay

Atachment---
Physician Assistant

CNA — Private-Sector Cash Compensation Sources: Physician Assistant

	Physician Assistant (MHS vs Private Sector)			
	Entry Level	Jr. Midpoint Level	Sr. Midpoint Level	Top Level
Years of Practice (YOP)	1-5	6-10	11-15	16-20
MHS	$59,042	$71,240	$80,307	$93,470
Civilian	$58,897	$62,974	$74,025	$85,963
% Variance (MHS/Civ)	100%	113%	108%	109%

Physician Assistants

MHS vs Civilian By Years of Experience*

YOP	MHS	Civilian
<2	$52,637	$58,621
3-7	$66,839	$64,274
8-17	$79,439	$70,061

*Civilian data = MGMA except <2 yrs is avg of MGMA & AAPA.

Civilian Calculation:				
Percentile	25th	50th	75th	90th
Warren	$62,866	$68,250	$73,179	$79,539
MGMA	$57,579	$65,287	$75,204	$86,233
HHCS	$58,605	$63,080	$67,438	$75,478
BLS	N/A	$50,199	$76,168	$92,510
McGladrey	$55,994	$63,408	$74,770	$85,662
AAPA	$59,438	$67,621	$77,393	$96,355
Avg	**$58,897**	**$62,974**	**$74,025**	**$85,963**

Data Sources:

1/Warren Surveys: The HMO Salary Survey: Spring 2000. Rockford, IL 61114. 815.877.8794 www.demarcowarren.com

# of Plans	# of Persons	10th	25th	Mean	Median	75th	90th
90	1,300	$56,782	$62,866	$68,803	$68,250	$73,179	$79,539

2/Medical Group Management Association: MD Compensation and Production Survey: 2000 Report based on 1999 Data.

Provider Compensation

Providers		# of Providers	# Med Pract	25th	Mean	Median	75th	90th
PA-surg	25%	184	70	$60,034	$72,514	$70,502	$82,681	$95,676
PA-PC	65%	483	134	$53,709	$62,339	$60,107	$68,648	$78,508
PA-other	10%	72	45	$55,788	$65,614	$62,316	$71,945	$81,672
All*	100%	739	249	$55,498	$65,210	$62,927	$72,486	$83,116
Adjusted for 2000**				$57,579	$67,655	$65,287	$75,204	$86,233

*Calculated using avg weighted rate.

**Adjustment Index used in calculation is: 2000 = 3.75%.

**Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Median Provider Compensation By Years of Experience

	<2 Years of Practice			3-7 Years of Practice			8-17 Years of prac	
Providers	Weight	Providers	Median	Weight	Providers	Median	Weight	Providers
PA-surg	27%	25	$61,608	24%	51	$68,436	32%	51
PA-PC	54%	51	$52,500	65%	138	$59,921	59%	95
PA-other	19%	18	$58,128	11%	23	$59,796	9%	15

Attachment---Physician Assistant

CNA			Private-Sector Cash Compensation Sources: Physician Assistant					
All*	100%	94	$56,028	100%	212	$61,951	100%	161
Adjusted for 2000**			$58,129			$64,274		

**Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%. *Calculated using avg weighted rate.

3/Occupational Outlook Handbook: 2000-01. BLS: US Department of Labor, pp. 207-8.

	10th	25th	Median	75th	90th
1998: Survey Data	$18,600	N/A	$47,090	$71,450	$86,780
2000: Adjusted*	$19,828		$50,199	$76,168	$92,510

******Did not use 25th percentile: (25,110) significantly lower than other surveys********

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculations are: 1999 = 2.75%; 2000 = 3.75%.

4/Hospital and Healthcare Compensation Survey: Oakland, NJ. Data for 1999.

Facilities	Persons	Lowest	25th	Mean	Median	75th	Highest
23	59	$52,000	$56,487	$60,812	$60,800	$65,000	$72,750
		2000: Adjusted*	$58,605	$63,092	$63,080	$67,438	$75,478

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculations are: 2000 = 3.75%.

5/RSM McGladrey, Inc: 1999 Data for Physician Assistants

Only 20th and 80th percentiles published. Substituted RMcGladrey 20th and 80th percentiles for 25th and 75th percentile in civilian calculation.

Groups	Respondents	Std Dev	20th	Mean	Median	80th	90th
35	334	$14,399	$53,970	$64,430	$61,116	$72,067	$82,566
		2000: Adjusted*	$55,994	$66,846	$63,408	$74,770	$85,662

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

6/ American Academy of Physician Assistants (AAPA) : 1999 Census data published in 2000*. N= 42,762 w/43% response rate.

	10th	25th	Mean	Median	75th	90th
1999	$51,314	$57,290	$68,757	$65,177	$74,596	$92,872
2000: Adjusted	$53,238	$59,438	$71,335	$67,621	$77,393	$96,355

*Excludes self employed and government employees

**Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

AAPA Census Survey for PAs who Graduated In or After 1999*

	10th	25th	Mean	Median	75th	90th
1999	$47,428	$51,931	$58,297	$56,977	$63,247	$71,507
2000: Adjusted	$49,207	$53,878	$60,483	$59,114	$65,619	$74,189

*Excludes self employed and government employees

**Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

Appendix C
Specialty: Registered Nurse

Element	Military Health System (MHS)	Private Sector
Minimal Educational Accession Standard	The minimum educational accession standard for the MHS is the Bachelor of Science in Nursing accredited by the National League for Nursing (NLN) or the Commission on Collegiate Nursing Education (CCNE). The minimum entry requirement for commissioning as an MHS officer is a baccalaureate degree. Active duty Registered Nurses are supplemented by civil service or contract RNs, licensed vocational nurses (LVNs), and enlisted medics/corpsmen/airmen.	The educational requirement includes multiple pathways to the practice of nursing: ➢ Associate degree in Nursing (A.D.N), ➢ Bachelor of Science degree in Nursing (B.S.N.), ➢ Hospital diploma ➢ Other entry programs are available for individuals who already have a Bachelor's degree in another field. All programs must be accredited by the NLN or CCNE. According to the National Sample Survey of Registered Nurses (NSS-RNs) (Division of Nursing: HRSA/1996), of RNs employed in nursing: ➢ 32 percent held Baccalaureate degrees as their highest educational credential, ➢ 34 percent held Associate degrees from community colleges, and ➢ 24 percent had hospital diplomas. Huston & Fox state (Nursing Outlook, May/June 1998) that, in an effort to contain costs, hospitals have restructured health delivery systems by alternating the staffing mix, replacing licensed professional nurses with unlicensed assistive personnel (UAP). In doing so, many patient-care functions normally performed by RNs have been transferred to UAPs. The National Advisory Council on Nurse Education and Practice urged that at least two-thirds of the basic nursing workforce hold Baccalaureate or higher degrees in nursing by 2010.
Licensing Requirement	The MHS requirement is a current, valid unrestricted state license. The Navy accepts nurses prior to final licensing and allows a total of two attempts to successfully pass before administratively separating or redesignating to another specialty.	In all states, students must graduate from a nursing program and pass a national licensing examination to obtain a nursing license. Nurses may be licensed in more than one state, either by examination or endorsement of a license issued by another state. Licenses must be periodically renewed. Some states require continuing education for licensure renewal. On average, 89 percent of U.S. educated candidates pass the exam the first time.
Average Number of Total Accessions (FY99—FY01)	The MHS most typically accesses about 880 nurses per year. The Air Force and Navy generally meet accession goals.	According to the American Association of Colleges of Nursing (AACN) latest annual survey (2/17/00): Enrollments of nursing students in entry-level Bachelor's-degree programs fell by 4.6 percent in the fall of 1999. This is a 17-percent decrease in the number of students enrolled in Baccalaureate-degree programs in the past 4 years.

Appendix C
Specialty: Registered Nurse

Element	Military Health System (MHS)	Private Sector
		Between August 1998 and July 1999, 25,444 students graduated from entry-level Baccalaureate programs at responding schools. Of all working RNs in the U.S., the percentage under 30 years of age dropped from 30 percent of the RN workforce in 1983 to 12 percent of the RN workforce in 1998 (Buerhaus et al., 2000b). The U.S. Bureau of Labor Statistics has predicted that job opportunities for RNs will grow by 21 percent by 2006, compared with a 14-percent increase for other occupations. In 1987, the American Hospital Association survey of hospital executives reported that they would prefer that 55 percent of their nursing staff be prepared with a BSN. In a 1999 a survey of University Healthsystem Consortium, chief nurse officers responded that 70 percent was their preference for BSN- educated RNs. However, only 44 percent of their institutions provided differentiated salaries, and only 33 percent applied differentiated role descriptions based on education. The VA, the largest employer of RNs, has established the Baccalaureate degree as the minimum preparation its nurses must have for promotion beyond entry-level beginning in 2005. According to the AACN, the increased demand for Bachelor's and graduate-prepared nurses is being driven by a variety of factors, among them: 1) An increasingly elderly population; 2) Growing number of hospitalized patients who are older and acutely ill; 3) Expanding opportunities for nurses in primary care, HMOs, home health, outpatient surgical centers, etc. 4) Increased recruiting of nurses by managed care firms, pharmaceutical companies, and information technology companies; 5) Technological advances requiring more highly skilled nursing personnel. Concurrently, expanded opportunities for women, who make up 94 percent of all RNs, is lowering the rate of individuals entering the profession.
Most Typical Accession Source	Primary accession source for all three services is assumed to be via the direct procurement program, utilizing the $5,000 accession bonus authorized	Presently, only 37 percent of all new entry-level RNs are Baccalaureate graduates (National League for Nursing (NLN), 1998).

Appendix C
Specialty: Registered Nurse

Element	Military Health System (MHS)	Private Sector
	by Congress to enhance direct recruitment efforts. However, the services have supplemented their direct procurement accessions with a number of subsidized educational programs, including Reserve Officers' Training Corps (ROTC) and enlisted commissioning programs designed to achieve total accession requirements. These subsidized programs also provide the MHS a more diverse and military-oriented workforce.	In 1997, the average age of new graduates from a baccalaureate program was 27 years. *Medical Economics* reports (2/7/00) that increases in base pay and variable pay (differential for education, shift work, etc.), regular staff input, management training/skill-building opportunities, and changing/re-engineering work environment have been somewhat effective in attracting and retaining RNs. According to the NSS-RNs 1996 data: ➢ 83 percent of RN license holders work as nurses (59 percent are employed full time and 24 percent part time), ➢ 4 percent work in other fields and ➢ 13 percent are not working. In the private sector, current shortages are confined to specialty areas of ICU, OR and OB-GYN. Shortages are primarily in hospitals but not in other areas, such as pharmaceutical or insurance companies.
Most Typical Work Setting	Most first-tour MHS nurses initially serve in a Military Treatment Facility (MTF) as a generalist/staff nurse on a medical surgical unit, mother/baby or pediatrics unit with rotations to outpatient and/or specialty units. The newly accessed MHS nurse typically works rotating 10- to 12-hour shifts and may or may not receive a formal preceptorship. Shift work, rotations, and preceptorships vary greatly and are usually facility specific. In addition, the MHS RN may have a variety of additional collateral, administrative, and watchstanding duties that typically are done at the end of the workday	According to the NSS-RNs 1996 data: ➢ 60 percent of all RNs practice in hospitals, ➢ 9 percent in ambulatory care, ➢ 17 percent in public and community health, ➢ 8 percent in long-term nursing care. ➢ 6 percent work in education, insurance companies, national or state administrative offices or associations. Seventy-three percent of all employed nurses under the age of 30 work in hospitals. Most new BSN-RNs seem to favor working in the hospital's ICU, ER, OB/GYN, and medical-surgical units. According to the RN Magazine Nursing Survey, 88 percent of full-time nurses work overtime. On average, they put in almost 6 extra hours per week. About 75 percent of RNs report that they are paid time and half for overtime.
Most Typical Career Progression	Initial focus of newly accessed nurses is geared towards solidifying clinical skills, typically assuming a leadership role on the unit within 6 months as a shift leader in charge of patient care and administrative duties. Second-tour assignments continue to focus on clinical proficiency, which often leads to certification for a particular specialty. These tours are typically located in a	Generally, BSN educated RNs have the best job advancement opportunities. Positions in a hospital setting range from charge nurse, head nurse, staff educator, and nurse manager/supervisor to administrative/executive. Other executive opportunities exist in home health, public health, insurance companies, outpatient ambulatory surgery

Appendix C
Specialty: Registered Nurse

Element	Military Health System (MHS)	Private Sector
	smaller facility accompanied by additional administrative and leadership responsibilities, collateral duties, and deployments. The majority of MHS Nurses will compete for limited service-sponsored graduate school opportunities between 6 and 8 years of service. Most registered nurses, either through graduate education or continued job experience, will specialize by the 10 YOS career juncture. To remain competitive for promotion, most MHS nurses will have acquired a graduate degree by the rank of 0-5, either subsidized by the services, through tuition assistance, or by individual means. The MHS nurse generally leaves direct patient care about mid- to senior 0-4 level, 14-16 YOS.	facilities, and medical clinics. In addition, BSNs have the ability to enter advanced-level programs and become nurse practitioners and certified registered nurse anesthetists. The average age of private-sector RNs is 44; high numbers of RN retirements are projected in the next 10 to 15 years. As private-sector nurses age, they spend less of their employed hours in providing direct patient care.
Cash Compensation	Cash compensation for active duty MHS RNs consists of regular military compensation (RMC).[a] No special pays are authorized for MHS RNs. To conduct a comparative compensation analysis between uniformed and private-sector nurses, a career profile was established to represent the predominant or most typical experience for a MHS nurse. The attachment summarizes this typical career profile and the cash compensation associated with that profile.	The following data sources were used to compile private-sector RN salaries: 1) Warren Surveys: The HMO Salary Survey: Spring 2000 Data. 2) *RN Magazine*: 1999 Earnings Survey: Conducted by Medical Economics Research Services. Data from the civilian salary surveys described above were averaged to form the cash compensation data for private-sector RNs. All data were adjusted to reflect 2000 dollars. [b] Civilian data sources rarely report compensation by years of practice (YOP). Most sources provide salary data by mean, median, and percentiles. Therefore, to make comparison to MHS RNs, we use the reported civilian percentiles as proxies for the cash compensation of civilian RNs at various career junctures (or YOP bands):

Appendix C
Specialty: Registered Nurse

Element	Military Health System (MHS)	Private Sector
	Assumptions Used in Career Profile: 1) MHS nurse receives an accession bonus of $5,000 with a commensurate 4-year active duty obligation. 2) Typical MHS nurse is 26 years old upon accession. 3) The services offer varying graduate education opportunities to its registered nurse pool. This most typically occurs at the 7-8 YOS career juncture and the individual typically incurs a 4-year active duty commitment for school subsidization. Upon obtaining a graduate degree, MHS nurses serve in staff utilization tours relevant to their specialized field. Once these professionals have satisfied their graduate educational active duty obligation, at about the 11 or 12 YOS juncture, they most typically serve in staff utilization tours and are virtually free of active duty service commitments excluding promotions and permanent change of station assignments. 4) Promotion to 0-2 is assumed to occur at end of YOS 2, 03 at end of YOS 4, 04 at end of YOS 11, and 05 at end of YOS 16. These flow points are consistent with Defense Officer Personnel Management Act guidelines.	YOP / Level / Percentile 1-5 Entry 25th 6-10 Junior mid 50th 11-15 Senior mid 75th 16-20 Top 90th The underlying assumption of this methodology is that the variation in civilian RN salaries is driven primarily by YOP. [d] Based on the sources and methodology described above, the following private-sector RN cash compensation data were compiled: Salaried RNs: [e] $36,251 Entry-level $43,858 Junior mid-level $52,358 Senior mid-level $60,733 Top-level According to the 1999 *RN Magazine* Salary Survey: 1) Salaries have remained flat for most of the 1990s (increases of 2 percent per year) but have seen some movement the last couple years with raises of 5-6 percent per year. 2) 40 percent of full time nurses receive no compensation for being on-call. About the same percentage say they get paid an extra $2.15 an hour for overtime. 3) 15 percent of nurses belong to unions. Unionized nurses make almost $5.00 more an hour than non-unionized nurses. 4) 75 percent reported differential for working night shift (about $4,000 per year), while BSN or specialty certification raises it by only $1,250 per year. In the private sector, several recent surveys (1999 *RN Magazine* & *Nursing 2000*) report no or very little difference in pay between BSNs and AA educated RNs. Diploma nurses who are older and more experienced continue to earn the most. According to Buerhaus et al., RNs are more likely than most occupational groups to respond to changes in the total family income. Spouses' earnings have a strong influence on whether nurses are employed.

Appendix C
Specialty: Registered Nurse

Element	Military Health System (MHS)	Private Sector
		According to *RN Magazine* Survey on Fringe Benefits, 98 percent of full-time RNs surveyed say their employers provide health and dental coverage, 75–80 percent of respondents contribute to these costs, and 80 percent of full-time nurses have a tax-deferred retirement plan. Average number of paid vacation days = 17; Average number of sick days = 10; Average numbers of personal days = 5; Average number of holidays = 7 According to the U.S. Bureau of Labor Statistics, nearly 27 percent of an average nurse's compensation package goes to pay benefits. The employer spends about $14,850 on benefits for a nurse who earns $40,150.
Global Comments	The services have developed a number of accession scholarship type programs, which have sustained the MHS Registered Nurse community. Many of these programs were implemented after the nursing shortage in the 1980s, giving the services a baseline entry number and long-term planning capabilities, reducing their dependence on the unpredictable pool of direct accessions. Ensuring a continuous pool of RNs is critical for the MHS because they are the major source of accessions to specialties such as family nurse practitioners, pediatric nurse practitioners, women's health practitioners, midwives, and certified registered nurse anesthetists. Specialists in critical care, operating room, and mental health also come from the pool of Registered Nurses and fulfill significant wartime requirements.	

[a] RMC is composed of basic pay, basic allowance for housing, basic allowance for subsistence, and the tax advantage accruing to the non-taxable nature of housing and subsistence allowances.
[b] Data prior to 2000 were adjusted by calculating the annual average of the BLS: Employment Cost Indexes for the Civilian Wages and Salaries for Hospitals and for Health Services. Based on this, 1997, 1998, and 1999 survey data were increased by 2.55, 2.75, and 3.75 percent, respectively.
[c] However, the latest nurse survey conducted by the Division of Nursing (HRSA in 1996) showed BSN-educated RNs were paid approximately $2,000 more than an AA-prepared RN but $1,500 less than a diploma-prepared RN. Salary appears to be driven by age and experience rather than education.
[d] Civilian YOP is equal to DoD YOS. Weaknesses to this approach include the inability to separate from the data the influences of regional variation, years in the profession, or significant trends associated with changes in starting salaries. Despite these weaknesses, we believe private-sector salaries by percentiles (25^{th}, 50^{th}, 75^{th}, 90^{th}) present a reasonable range within which it is possible to make valid comparisons to the uniformed health services' salary compensation. Moreover, limited civilian data by years of experience suggest an upward sloping wage tenure profile that supports our methodology.
[e] The attachment summarizes the private-sector Registered Nurse salary data.

CNA	Military Health System (MHS) Registered Nurse								
				Based on Cash Compensation as of July 2000					
Current End YOS (ACBD)	Years in Practice (YOP) as Specialist	Age	Grade*	Type of Military Service**	ADSC***	RMC	TOTAL	AVERAGE MHS CASH COMPENSATION Based on:>>>>>>>>>>	# Years of Practice (YOP) as Specialist
1	1	27	O-1	SU	3	$33,644.77	**$33,645**		
2	2	28	O-2	SU	2	$42,616.38	**$42,616**	$38,131	1-2
3	3	29	0-2	SU	1	$47,725.06	**$47,725**		
4	4	30	O-3	SU	0 (x)	$48,903.16	**$48,903**		
5	5	31		SU		$55,128.01	**$55,128**	$45,603	1-5
6	6	32		SU		$57,064.35	**$57,064**	$50,585	3-5
7	7	33		GD	4	$57,064.35	**$57,064**		
8	8	34		GD	4	$59,285.14	**$59,285**		
9	9	35		ST	3	$59,285.14	**$59,285**		
10	10	36		ST	2	$61,174.68	**$61,175**	$58,775	6-10
11	11	37	O-4	ST	1	$61,174.68	**$61,175**		
12	12	38		ST/SJ	0 (x)	$69,295.30	**$69,295**		
13	13	39		ST/SJ		$72,230.32	**$72,230**		
14	14	40		ST/SJ		$72,230.32	**$72,230**		
15	15	41		ST/SJ		$74,278.87	**$74,279**	$69,842	11-15
16	16	42	O-5	ST/SJ		$74,278.87	**$74,279**		
17	17	43		ST/SJ		$86,077.62	**$86,078**		
18	18	44		ST/SJ		$86,077.62	**$86,078**		
19	19	45		ST/SJ		$87,986.92	**$87,987**		
20	20	46		ST/SJ	0 (x)	$87,986.92	**$87,987**	$84,482	16-20

* Promotion to O-4 occurs at end of YOS 11; to O-5 at end of YOS 16; to O-6 at end of YOS 23 (not shown on this table)

** Use this key to indicate the type of service for each year

SU	Staff Utilization Tour
GD	Graduate Degree
SJ	Staff Job (Admin/Supervisory)
ST	Specialty Tour

*** Active Duty Service Commitment at the end of the current year of service

CNA **Private-Sector Cash Compensation Sources: Registered Nurse**

	Registered Nurse (MHS vs Private Sector)			
	Entry Level	Jr. Midpoint	Sr. Midpoint	Top Level
Years of Practice	1-5	6-10	11-15	16-20
MHS	$45,603	$58,775	$69,842	$84,482
Civilian	$36,251	$43,858	$52,358	$60,733
% Variance (MHS/Civ)	126%	134%	133%	139%

Civilian Calculation:

Percentile	25th	50th	75th	90th
Warren	$41,378	$46,216	$52,842	$59,215
RN Survey	$31,124	$41,500	$51,874	$62,250
Avg	**$36,251**	**$43,858**	**$52,358**	**$60,733**

Average Income By Years of Practice	MHS	Civilian
<3 yrs	$38,131	$36,665
3-5 yrs	$50,585	$39,145
6-10 yrs	$58,775	$40,888
11-15 yrs	$69,842	$41,490

Average Income By Practice Setting	
MHS (6-10 YOP)	$58,775
Acute Care	$42,548
Amb Care/HMO	$37,428
Comm/HH	$39,990
Health Ins/Schoo	$41,567
ExtCare/Psy	$41,334
MD Office	$36,479

Data Sources:

1/Warren Surveys: The HMO Salary Survey: Spring 2000. Rockford, IL 61114. 815.877.8794 www.demarcowarren.com Position: Staff RN

# of Plans	# of Persons	10th	25th	Mean	Median	75th	90th
131	15,878	$36,500	$41,378	$47,323	$46,216	$52,842	$59,215

2/RN Magazine: 1999 Earnings Survey.Conducted by Medical Economics Research Services. Sample = 6,400 RNs w/response rate of 40% (2,558).
RN Magazine Survey did not publish percentile data except for mean and median. However the following salary detail
was published for nurses working in acute care hospitals and used as percentile information.

	Income '99	Income '00*	
22% of respondents made $29,999 or less	$29,999	$31,124	Assumed 25th percentile
50% of respondents made $40,000 or less	$40,000	$41,500	Assumed 50th percentile
76% of respondents made $49,999 or less	$49,999	$51,874	Assumed 75th percentile
89% of respondents made $60,000 or less	$60,000	$62,250	Assumed 90th percentile

Note: when hourly rate provided multiplied by 2,080 hours for annual income.

Avg Income By Practice Setting

	Income '99	Income '00*
Acute Care	$41,010	$42,548
Amb Care/HMO	$36,075	$37,428
Comm/HH	$38,545	$39,990
Health Ins/School	$40,065	$41,567
ExtCare/Psy	$39,840	$41,334
MD Office	$35,160	$36,479

Avg Income By Yrs of Experience

	Income '99	Income '00*
<3 yrs	$35,340	$36,665
3-5 yrs	$37,730	$39,145
6-10 yrs	$39,410	$40,888
11-15 yrs	$39,990	$41,490
16+	$42,380	$43,969

Average Annual Pay By Specialty

	Income '99	Income '00*
OR	$46,592	$48,339
OBG.newborn	$46,072	$47,800
Amb Surg.Ou	$45,344	$47,044
ED	$43,576	$45,210
ICU/CCU	$42,952	$44,563
Med/Surg	$40,872	$42,405

Average Annual Pay by Hospital Bed Size

	Income '99	Income '00*
500+ Beds	$46,280	$48,016
300-499 Beds	$47,112	$48,879
100-299 Beds	$45,448	$47,152
< 100 Beds	$40,144	$41,649

Avg Income By Education

	Income '99	Income '00*
Diploma	$40,350	$41,863
Assoc	$39,125	$40,592
BSN	$40,230	$41,739

Avg Income By Position

	Income '99	Income '00*
Staff Nurse	$37,850	$39,269
Charge Nurse	$43,920	$45,567
Head Nurse	$45,070	$46,760

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

*Adjustment Index used in calculation is: 2000 = 3.75%.

Appendix C
Specialty: Certified Registered Nurse Anesthetist (CRNA)

Element	Military Health System (MHS)	Private Sector
Minimum Educational Accession Standard	The minimum educational accession standard for the MHS is a Master of Science in Nursing (accredited by the National League for Nursing (NLN)) with a focus in Nurse Anesthesia accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs.	Master of Science in Nursing established as baseline requirement in 1994.
Licensing Requirement	The MHS requirement is a current, valid unrestricted Registered Nursing license plus certification from the Council on Certification of Nurse Anesthesia (CCNA) Educational Programs within 1 year of graduation. Continuing education and recertification is required every 2 years. In accordance with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) policy change of 1999, the Navy considers CRNAs licensed independent practitioners with complete privileges. Air Force and Army policies allow CRNAs to practice independently within their scope of practice; however, individual MTF policy and location will determine degree of independence. MHS CRNAs have significant prescriptive authority.	Laws specific to CRNA licensure and scope of practice vary from state to state. Generally the requirements are: ➢ Hold a current, valid unrestricted Registered Nursing license. ➢ Graduate from an accredited school of nurse anesthesia educational program ranging from 24 to 36 months depending on university requirements. ➢ Pass a national certification examination following graduation and complete a continuing education and re-certification program every 2 years thereafter.
Average Number of Total Accessions (FY99—FY01)	The MHS most typically accesses 62 Certified Registered Nurse Anesthetists (CRNAs) per year. In the MHS, about 63 percent of the CRNA community is male.	According to Larry Hornsby, President of the American Association of Nurse Anesthetist (AANA) approximately 1,000 nurse anesthesia students graduate annually. In the private sector, 42 percent of CRNAs are male.
Most Typical Accession Source	Primary accession source for all three services is by competitively selecting and then sending MHS registered nurses to graduate educational programs. This benefit includes full salary commensurate with rank, benefits, tuition, books, and fees. Individuals entering CRNA programs typically have 8 years of commissioned service in the MHS registered nursing community. Typical active duty commitment following subsidized graduate education is 4 years. For the MHS to proficiently train MHS CRNAs to provide regional anesthesia, the MHS typically trains at select civilian institutions or the Uniformed Services University of the Health Sciences (USUHS) for didactics with clinical rotations at MHS MTFs. The typical MHS program lasts about 2 years, 5 months with an average active duty service obligation of 4 years, 3 months.	To enter an accredited CRNA program, private sector students must have at least 1-year experience in acute care nurse setting.
Most Typical Work Setting	Most first-tour CRNAs initially serve in a medium to large facility. Follow on tours are typically operational, overseas, or to an isolated facility, occasionally as the sole anesthesia provider.	According to the 2000 AANA Survey: CRNAs are employed by: ➢ 33 percent Hospital ➢ 37 percent Physician Group ➢ 20 percent CRNA Group or Self employed ➢ 9 percent Other

Appendix C

Specialty: Certified Registered Nurse Anesthetist (CRNA)

Element	Military Health System (MHS)	Private Sector
Most Typical Case Mix	MHS CRNAs provide anesthesia services for all specialties and to all age groups of military beneficiaries. Case mix includes all ages and all surgical specialties, including the administration of regional anesthesia. Due to periodic assignments to frontline battalions, ships and remote areas, MHS CRNAs must possess a significant degree of proficiency in administering regional anesthesia.	CRNAs provide anesthesia services to all age groups. According to the AANA, private-sector CRNAs are the sole anesthesia providers in nearly 50 percent of all hospitals and more than 65 percent of rural hospitals in the U.S. General anesthesia is the mainstay for practicing CRNAs in the civilian sector. Regional anesthesia is limited by comparison. A study published in September 1996, "Clinical Aspects of CRNA Practice-Regional Anesthesia" by Loren Spitzer, revealed that the most common regional anesthesia services administered by approximately half of the respondents (of practicing CRNAs) were spinal anesthesia and epidurals.
Career Pathway	Initial focus of newly accessed CRNAs is clinical proficiency. Although CRNAs are seasoned officers, these highly skilled professionals predominantly serve the remainder of their military career in a variety of clinical settings commensurate with their specialty expertise. Some may assume additional administrative, financial, personnel management, educational, and military leadership duties, but the majority of these specialists typically concentrate on providing skilled anesthesia services.	CRNAs tend to clinically practice but have opportunities in administration, teaching, research, and executive positions.

Appendix C

Specialty: Certified Registered Nurse Anesthetist (CRNA)

Element	Military Health System (MHS)	Private Sector
Cash Compensation	Cash compensation for active duty MHS CRNAs consists of regular military compensation (RMC),[a] board certification pay (BCP), and incentive special pay (ISP). BCP payments begin after the individual successfully completes board certification examinations, and the amounts vary by years of service ranging from $2,000 to $4,000. CRNAs may receive an annual ISP of only $6,000 while completing their training obligation, and then are authorized $15,000 annually. To conduct a comparative compensation analysis between uniformed and private-sector CRNAs, a career profile was established to represent the predominant or most typical experience for an MHS CRNA. The attachment summarizes this typical career profile and the cash compensation associated with that profile. **Assumptions Used in Career Profile:** 1) Typical MHS CRNA is competitively selected from the RN workforce to attend subsidized graduate education. Typical active duty service obligation for a graduate degree is 4 years. 2) The typical newly trained MHS CRNA is about 36 years old with about 10 years' commissioned service. 3) The MHS CRNA is predominately assigned to staff utilization tours upon completion of specialty degree. After these specialists satisfy their initial active duty obligation for graduate training, they are virtually free of active duty service commitments (excluding promotions and permanent change of station assignments, etc.). 4) Promotion to 0-4 is assumed to occur at end of YOS 11, 0-5 at end of YOS 16, and 0-6 at end of YOS 23. These flow points are consistent with Defense Officer Personnel Management Activity Guidelines.	The following data sources were used to compile private-sector CRNA salaries: 1) Warren Surveys: The HMO Salary Survey: Spring 2000 Data. 2) MGMA: Physician Compensation and Productivity Survey: 2000 Report Based on 1999 data. Data from the civilian salary surveys described above were averaged together to form the cash compensation data for civilian-sector CRNAs. All data were adjusted to reflect 2000 dollars. [b] Civilian data sources rarely report compensation by years of practice (YOP). Most sources provide salary data by mean, median, and percentiles. Therefore, to make comparison to MHS CRNAs, we use the *reported civilian percentiles as proxies for the cash compensation of* civilian CRNAs at various career junctures (or YOP bands): YOP / Level / Percentile 1-5 / Entry / 25th 6-10 / Mid / 50th 11-15 / Top / 75th The underlying assumption of this methodology is that the variation in civilian CRNA salaries is driven primarily by YOP. [c] Based on the sources and methodology described above, the following private-sector certified registered nurse anesthetist cash compensation data were compiled: Salaried CRNA[d]: $85,197 Entry-level $94,740 Mid-level $103,923 Top-level According ANNA FY 2000 survey: Median annual # of days: 1) Vacation = 22 2) Holidays = 6 3) Sick days = 6

Appendix C

Specialty: Certified Registered Nurse Anesthetist (CRNA)

[a] RMC is composed of basic pay, basic allowance for housing, basic allowance for subsistence, and the tax advantage accruing to the non-taxable nature of housing and subsistence allowances.

[b] Data prior to 2000 were adjusted by calculating the annual average of the BLS: Employment Cost Indexes for the Civilian Wages and Salaries for Hospitals and for Health Services. Based on this, 1997, 1998, and 1999 survey data were increased by 2.55, 2.75, and 3.75 percent, respectively.

[c] Civilian CRNA YOP = DoD YOS: 10-14 YOS = entry level; 15-19 YOS = mid-level; 20-24 YOS =top level. Weaknesses to this approach include the inability to separate from the data the influences of regional variation, years in the profession, or significant trends associated with changes in starting salaries. Despite these weaknesses, we believe private-sector salaries by percentiles (25^{th}, 50^{th}, 75^{th}, 90^{th}) present a reasonable range within which it is possible to make valid comparisons to the uniformed health services' salary compensation.

[d] The attachment summarizes the private-sector Certified Registered Nurse Anesthetist nurse salary data.

CNA **Military Health System (MHS) Certified Registered Nurse Anesthestist**

Based on Cash Compensation as of July 2000

Current End YOS (ACBD)	Years in Practice (YOP) as Specialist	Age	Grade*	Type of Military Service**	ADSC***	RMC	BCP****	ISP*****	TOTAL	AVERAGE MHS CASH COMPENSATION Based on:>>>>>>>	# Years of Practice (YOP) as Specialist
10	1	36	O-3	SU	4	$61,174.68	$2,000	$6,000	**$69,175**		
11	2	37	O-4	SU	3	$61,174.68	$2,000	$6,000	**$69,175**	**$69,175**	**1-2**
12	3	38		SU	2	$69,295.30	$2,000	$6,000	**$77,295**		
13	4	39		SU	1	$72,230.32	$2,000	$6,000	**$80,230**	**$77,021**	**1-5**
14	5	40		SU	0 (x)	$72,230.32	$2,000	$15,000	**$89,230**	**$82,252**	**3-5**
15	6	41		SU		$74,278.87	$2,000	$15,000	**$91,279**		
16	7	42	O-5	SU		$74,278.87	$2,000	$15,000	**$91,279**		
17	8	43		SU		$86,077.62	$2,000	$15,000	**$103,078**		
18	9	44		SU		$86,077.62	$2,000	$15,000	**$103,078**	**$98,840**	**6-10**
19	10	45		SU		$87,986.92	$2,500	$15,000	**$105,487**		
20	11	46		SU	0 (x)	$87,986.92	$2,500	$15,000	**$105,487**		
21	12	47		SU		$89,770.73	$3,000	$15,000	**$107,771**		
22	13	48		SU		$91,813.05	$3,000	$15,000	**$109,813**		
23	14	49	O-6	SU		$91,813.05	$4,000	$15,000	**$110,813**		
24	15	50		SU		$103,044.40	$4,000	$15,000	**$122,044**	**$111,186**	**11-15**

* Promotion to O-4 occurs at end of YOS 11; to O-5 at end of YOS 18; to O-6 at end of YOS 23

** Use this key to indicate the type of service for each year

SU Staff Utilization Tour - Practicing as specialist

*** Active Duty Service Commitment at the end of the current year of service

**** Board Certified Pay

***** Incentive Special Pay

CNA — Private-Sector Cash Compensation Sources: Certified Registered Nurse Anesthetist (CRNA)

CRNA (MHS vs Private Sector)	Entry Level	Jr. Midpoint Level	Sr. Midpoint Level
Years of Practice (YOP)	1-5	6-10	11-15
MHS	$77,021	$98,840	$111,186
Civilian	$85,197	$94,740	$103,923
% Variance (MHS/Civ)	**90%**	**104%**	**107%**

Civilian Calculation:				
Percentile	25th	50th	75th	90th
Warren	$83,349	$93,142	$99,600	$110,568
MGMA	$87,045	$96,338	$108,247	$126,916
Avg	**$85,197**	**$94,740**	**$103,923**	**$118,742**

CRNA Comparison — Median Salaries by Employer	
MHS	$98,840
Hospital	$106,603
Physician	$95,943
Other	$99,141
Self-Empl	$115,131

CRNA Median Salaries	
MHS*	Civilian**
$98,840	$100,207

* MHS = 5 -9 Years of Experience (YOP)
**Civilian = 67% have 11 years+ exp.

Data Sources:

1/Warren Surveys: The HMO Salary Survey: Spring 2000. Rockford, IL 61114. 815.877.8794 www.demarcowarren.com

# of Plans	# of Persons	10th	25th	Mean	Median	75th	90th
25	1,272	$68,343	$83,349	$92,537	$93,142	$99,600	$110,568

2/Medical Group Management Association: MD Compensation and Production Survey: 2000 Report based on 1999 Data. Engelwood, CO.

# of Provs.	Med Pract	Std Dev	25th	Mean	Median	75th	90th
188	24	$26,151	$83,899	$98,206	$92,856	$104,334	$122,329
Adjusted for 2000*			$87,045	$101,889	$96,338	$108,247	$126,916

Median Salaries By Years of Experience

	Providers	3-7 Yrs	Providers	8-17 Yrs
1999	43	$92,945	55	$92,766
Adjusted for 2000*		$96,430		$96,245

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.
Adjustment Index used in calculation is: 2000 = 3.75%.

3/American Association of Nurse Anesthetist: 2000 CY Member Survey N= 14,753

1998: CRNA CY Full-Time Median Income by Employment Category

	1998	2000*
All	$94,000	$100,207
Hospital	$100,000	$106,603
Physician	$90,000	$95,943
Other	$93,000	$99,141
Self	$108,000	$115,131

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.
Adjustment Index used in calculation is: 1999: 2.75% 2000 = 3.75%.

Attachment---Certified Regsitered Nurse Anesthetist

Appendix C
Specialty: Advanced Practice Nurses

Element	Military Health System (MHS)	Private Sector
Minimum Educational Accession Standard	The minimum educational accession standard for the MHS is a Master of Science in Clinical Nursing accredited by the National League for Nursing (NLN) or the Commission on Collegiate Nursing Education (CCNE), with a post-Master's certificate in the desired NP specialty. Nurses reported in this category include all categories of nurse practitioners and midwives. Certified registered nurse anesthetists are reported separately.	The educational requirement is a Baccalaureate degree with a Certificate or Master of Science in Nursing specific to the specialty, accredited by the National League for Nursing (NLN) or the Commission on Collegiate Nursing Education (CCNE). According to the 1999 ADVANCE National Survey of APNs: ➢ 81 percent had Master's degrees ➢ 12 percent had NP Certificate ➢ 3 percent had PhDs ➢ 3 percent had Bachelor's degrees. According to the American College of Nurse Practitioners, Nurse Practitioners are educated through programs that grant either a certificate or Master's degree. An RN is recommended to have extensive clinical experience before applying to a nurse practitioner program. There are some programs available for individuals who have completed a Baccalaureate degree but who are not Registered Nurses. These programs are longer in length than the standard Master's program. They result in eligibility for licensure as a Registered Nurse, and for sitting for the certification boards as an Advanced Practice Nurse. Generally, these programs are very selective about what candidates they will take into their programs.
Licensing Requirement	Current, valid unrestricted Registered Nurse License plus Certification from National Certification Board for specialty. In accordance with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) policy change of 1999, Navy policy regards APNs as licensed independent practitioners with complete privileges. Air Force and Army policy allows APNs to practice independently within their scope of practice; however, individual MTF policy and location will determine degree of independence. All services authorize significant prescriptive authority based on practice scope.	Laws specific to APN licensure vary from state to state. The current trend is moving in the direction of more states requiring Master's degree educational preparation and national certification. In some states, APN practice is completely independent, others require proof of a collaborative MD only for prescriptive practice privileges, some require proof of a collaborative MD for licensure at all, and an isolated few states still do not have specific nurse practitioner licensure and do not recognize the practice of APNs.
Average Number of Total Accessions (FY99—FY01)	The MHS most typically accesses about 73 Advanced Practice Nurses (APNs) per year.	According to the American Association of Colleges (AACN) of Nursing's latest annual survey of Master's-degree programs, a total of 10,342 students graduated between August 1998 and July 1999: ➢ 63 percent (6,500) are nurse practitioners, ➢ 10 percent are nurse specialists (mental health, critical care, etc.) ➢ 9 percent are CRNAs ➢ 3 percent are nurse midwives

Appendix C
Specialty: Advanced Practice Nurses

Element	Military Health System (MHS)	Private Sector
		➢ 15 percent other Of the 6,500 Master's prepared nurse practitioner graduates, 78 percent are graduates from family, adult, and pediatric concentrations; 22 percent are from gerontology, women's health, and other specialty tracks.
Most Typical Accession Source	Primary accession source for all three services is by competitively selecting and then sending MHS Registered Nurses to graduate programs (averaging 24 months with a 4-year ADSO) in the private sector and paying their tuition, books, and active duty salaries while in school. Individuals entering APN programs typically have 8 years commissioned service in the MHS registered nursing community. Typical active duty commitment following subsidized graduate education is 4 years. Age and YOS for entry into the APN field of practice varies with each specialty and service included in this section. Army APNs are typically younger and are generally selected earlier in their careers to attend graduate school. Typically, MHS midwives report a more senior rank and age upon selection to graduate school.	Becoming an APN generally requires a Master's degree in Nursing. Normally, someone who wants to be an APN will first attend an undergraduate school of nursing, where he or she will be awarded a Baccalaureate degree in nursing, and also obtain licensure as a Registered Nurse. The person then generally works for a period of 2 or more years prior to entry into an APN program. The APN program itself will vary in length from 1 to 2 academic years, depending on the nature of the program and the school that is chosen. According to the 1999 ADVANCE National Survey of APNs, anecdotal evidence suggests that newer grads may be having difficulty finding employment, while experienced APNs are attractive to employers as long as they remain flexible (salary, hours, etc.).
Most Typical Work Setting	Most first-tour APNs initially serve in an MTF setting commensurate with their chosen specialty. The majority of these professionals will continue to serve in an ambulatory setting; however, they are expected to participate in field training exercises, and are called upon for humanitarian and wartime deployments.	According to the latest survey by the Division of Nursing (HRSA/1996): ➢ 36 percent were in physician practice sites ➢ 16 percent were in public or school health sites ➢ 14 percent were in various community health centers ➢ 10 percent were in hospital outpatient departments ➢ 4 percent were in HMOs ➢ 13 percent were in hospital inpatient units ➢ 6 percent were in other settings. Twenty-four percent of APNs worked in rural areas. Private-sector conditions on the job vary based on the type of specialty in which the APN practices. The majority of APN positions are ambulatory care positions, where the APN works in an outpatient setting seeing their patients. The settings, however, can be quite varied and may include doing house calls in rural areas to a standard pediatric or family practice office. According to the American College of Nurse Midwifery, private-sector midwives may practice in a variety of settings, including hospitals, homes, and birth centers. According to the 1999 ADVANCE National Survey, 81 percent of APNs work full-time.
Career Progression	Initial focus of advanced practice nurses is directed towards solidifying clinical skills.	APNs tend to clinically practice but have opportunities in administration, teaching, research, and executive positions.

Appendix C
Specialty: Advanced Practice Nurses

Element	Military Health System (MHS)	Private Sector
	The majority of these professionals will typically serve in an isolated overseas or remote duty location during their second tour of duty as an APN. Because most MHS APNs are experienced officers, they are expected to assume additional administrative, financial, personnel management, and military leadership duties commensurate with their military rank and experience while continuing to hone their clinical skills. The Army is currently transitioning all non-FNPs into FNP completion programs and women's health NPs into midwifery.	
Most Typical Case Mix	Most typical case mix includes acute, chronic, and healthy clients with varying age groups reflective of their chosen specialty, generally within a primary care setting. MHS certified nurse midwife's case mix is divided between antepartal, intrapartal, and post-partum (before, during, and after the birthing process) care in both the inpatient and outpatient areas.	Case mix is dependent on practice setting and certification held. However, the majority of APNs work in primary care.
Cash Compensation	Cash compensation for active duty MHS APNs consists of regular military compensation (RMC)[a] and board certification pay (BCP) as of July 2000. BCP payments begin after the individual successfully completes board certification examinations and the amounts vary by years of practice ranging from $2,000 to $4,000. To conduct a comparative compensation analysis between uniformed and private-sector APNs, a career profile was established to represent the predominant or most typical experience for an MHS APN. The attachment summarizes this typical career profile and the cash compensation associated with that profile. **Assumptions Used in Career Profile:** 1) Typical MHS advanced practice nurse is competitively selected from the MHS RN workforce to attend subsidized graduate programs. Typical active duty service obligation for a graduate degree is 4 years. 2) The typical newly trained MHS APN is about 36 years old with about 10 years' commissioned service. 3) The MHS APN is predominately assigned to staff utilization tours upon completion of specialty degree. After these specialists satisfy their initial active duty obligation for graduate training, they are virtually free of active duty service commitments (excluding promotions, permanent change of station assignments, etc.). 4) Promotion to 0-4 is assumed to occur at end of YOS 11, 0-5 at end of YOS 16, and 0-6 at end of YOS 23. These flow points are consistent	The following data sources were used to compile civilian-sector APN salaries: 1) Warren Surveys: The HMO Salary Survey: Spring 2000 Data. 2) MGMA: Physician Compensation and Productivity Survey: 2000 Report based on 1999 data. 3) RSM McGladrey, Inc., 1999 data. 4) ADVANCE: 1999 National Survey of Nurse Practitioners. 1999 data. Data from the civilian salary surveys described above were averaged to form the cash compensation data for private-sector APNs. All data were *adjusted to reflect 2000 dollars.*[b] Civilian data sources rarely report compensation by years of practice (YOP). Most sources provide salary data by mean, median, and percentiles. Therefore, to make comparisons to MHS APNs, we use the reported civilian percentiles as proxies for the cash compensation of civilian APNs at various career junctures (or YOP bands): YOP / Level / Percentile 1-5 / Entry / 25th 6-10 / Mid / 50th 11-15 / Top / 75th The underlying assumption of this methodology is that the variation in

Appendix C
Specialty: Advanced Practice Nurses

Element	Military Health System (MHS)	Private Sector
	with Defense Officer Personnel Management Act guidelines.	civilian APN salaries is driven primarily by YOP. [c] Based on the sources and methodology described above, the following private-sector APN cash compensation data were compiled: Salaried APNs:[d] $57,159 Entry-level $62,411 Mid-level $68,401 Top-level According to the ADVANCE 1999 APN Survey: ➢ 68 percent of employers paid for continuing education ➢ 69 percent reimbursed for malpractice ➢ 75 percent were offered health insurance, and ➢ 57 percent had profit sharing/401k plans.
Global Comments	The degree of independent practice for each of the specialties included in this category tends to vary by specialty, service, individual assignment, and the medical staff assigned.	

[a] RMC is composed of basic pay, basic allowance for housing, basic allowance for subsistence and the tax advantage accruing to the non-taxable nature of housing and subsistence allowances.
[b] Data prior to 2000 were adjusted by calculating the annual average of the BLS: Employment Cost Indexes for the Civilian Wages and Salaries for Hospitals and for Health Services. Based on this, 1997, 1998, and 1999 survey data were increased by 2.55, 2.75, and 3.75 percent, respectively.
[c] Civilian APN year of practice (YOP) = MHS year of service (YOS): YOS: 10-14 years = entry level; 15-17 years = mid level; 20-24 years = top level. Weaknesses to this approach include the inability to separate from the data the influences of regional variation, years in the profession, or significant trends associated with changes in starting salaries. Despite these weaknesses, we believe private-sector salaries by percentiles (25^{th}, 50^{th}, 75^{th}, 90^{th}) present a reasonable range within which it is possible to make valid comparisons to the uniformed health services' salary compensation. Moreover, limited civilian data by years of experience suggest an upward sloping wage tenure profile that supports our methodology.
[d] The attachment summarizes the private-sector advance practice nurse salary data.

CNA **Military Health System (MHS) Advanced Practice Nurse (excluding CRNA's)**

Based on Cash Compensation as of July 2000

Current End YOS (ACBD)	Years in Practice (YOP) as Specialist	Age	Grade*	Type of Military Service**	ADSC***	RMC	BCP****	TOTAL	AVERAGE MHS CASH COMPENSATION Based on:>>>>>>>	# Years of Practice (YOP) as Specialist
10	1	36	O-3	SU	4	$61,174.68	$2,000	**$63,175**		
11	2	37	O-4	SU	3	$61,174.68	$2,000	**$63,175**	**$63,175**	**1-2**
12	3	38		SU	2	$69,295.30	$2,000	**$71,295**		
13	4	39		SU	1	$72,230.32	$2,000	**$74,230**	**$69,221**	**1-5**
14	5	40		SU	0 (x)	$72,230.32	$2,000	**$74,230**	**$73,252**	**3-5**
15	6	41		SU		$74,278.87	$2,000	**$76,279**		
16	7	42	O-5	SU		$74,278.87	$2,000	**$76,279**		
17	8	43		SU		$86,077.62	$2,000	**$88,078**		
18	9	44		SU		$86,077.62	$2,000	**$88,078**	**$83,840**	**6-10**
19	10	45		SU		$87,986.92	$2,500	**$90,487**		
20	11	46		SU	0 (x)	$87,986.92	$2,500	**$90,487**		
21	12	47		SU		$89,770.73	$3,000	**$92,771**		
22	13	48		SU		$91,813.05	$3,000	**$94,813**		
23	14	49	O-6	SU		$91,813.05	$4,000	**$95,813**		
24	15	50		SU		$103,044.40	$4,000	**$107,044**	**$96,186**	**11-15**

* Promotion to O-4 occurs at end of YOS 11; to O-5 at end of YOS 18; to O-6 at end of YOS 23

** Use this key to indicate the type of service for each year

SU Staff Utilization Tour - Practicing as specialist

*** Active Duty Service Commitment at the end of the current year of service

**** Board Certified Pay

Private-Sector Cash Compensation Sources: Advanced Practice Nurse (Excluding CRNAs)

Adv. Practice Nurse (excludes CRNAs) (MHS vs Private Sector)	Entry Level	Jr. Midpoint Level	Sr. Midpoint Level
Years of Practice (YOP)	1-5	6-10	11-15
MHS	$69,221	$83,840	$96,186
Civilian	$57,159	$62,411	$68,401
% Variance (MHS/Civ)	121%	134%	141%
Civilian Calculation:			
Percentile	25th	50th	75th
Warren	$61,267	$65,580	$71,179
MGMA	$53,052	$59,241	$65,624
RMcGladrey	$55,431	$63,131	$70,477
Avg	**$57,159**	**$62,411**	**$68,401**

Average Salaries By Years of Practice	MHS	Civilian
0-2 YOP	$63,175	$57,564
3-5 YOP	$73,252	$61,146
6-10 YOP	$83,840	$63,189
10-20 YOP	$96,186	$63,725

Avg Income By Practice Setting	
MHS (YOP 6-10)	$83,840
Independent	$68,906
FP	$59,934
IM	$61,802
Women's Health	$55,888
Pediatrics	$59,462
Comm Health	$53,761
ER	$71,029
Hospital	$63,211
Other	$60,111

Data Sources:

1/Warren Surveys: The HMO Salary Survey: Spring 2000. Rockford, IL 61114. 815.877.8794 www.demarcowarren.com Position: Practicing Nurse Practitioner

# of Plans	# of Persons	10th	25th	Mean	Median	75th	90th
110	2,018	$55,167	$61,267	$66,227	$65,580	$71,179	$75,757

2/Medical Group Management Association: MD Compensation and Production Survey: 2000 Report based on 1999 Data.

# of Providers	Med Pract	Std Dev	25th	Mean	Median	75th	90th
635	208	$10,982	$51,134	$57,375	$57,100	$63,252	$70,035
Adjusted for 2000*			$53,052	$59,527	$59,241	$65,624	$72,661

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

3/RSM McGladrey, Inc: 1999 Data. Only 20th and 80th percentiles published. Substituted RMcGladrey 20th and 80th percentiles for 25th and 75th percentile in civilian calculation.

# of Providers	Med Pract	Std Dev	20th	Mean	Median	80th	90th
370	39	$19,834	$53,427	$63,012	$60,849	$67,930	$75,029
Adjusted for 2000*			$55,431	$65,375	$63,131	$70,477	$77,843

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

4/ADVANCE 1999 National Salary Survey of Nurse Practitioners: www.advancefornp.com: 1999 data. N=2,007 valid responses.

Survey Response = 87% Practicing ANPs; 1% Academician; 12% other.

*Data adjusted by the BLS: Employment Cost Index: the average of Wages and Salaries for hospitals and health services.

Adjustment Index used in calculation is: 2000 = 3.75%.

Avg Income By Practice Setting

	Income '99	Income '00*
Independent	$66,415	$68,906
FP	$57,768	$59,934
IM	$59,568	$61,802
Women's Heal	$53,868	$55,888
Pediatrics	$57,313	$59,462
Comm Health	$51,818	$53,761
ER	$68,462	$71,029
Hospital	$60,926	$63,211
Other	$57,938	$60,111

Avg Income By Yrs of Experience

	Income '99	Income '00*
0-2 yrs	$55,483	$57,564
3-5 yrs	$58,936	$61,146
6-10 yrs	$60,905	$63,189
10-20 yrs	$61,422	$63,725

(Survey note: % of Responses for Yrs on Practice
64% = 5 yrs or less; 14% = 6-10 yrs; 12% = 10-20 yrs)

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