A DEFENSE ANALYTICAL STUDY SUBMITTED TO THE FACULTY

IN

FULFILLMENT OF THE CURRICULUM REQUIREMENT

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MAXWELL AIR FORCE BASE, ALABAMA
APRIL 1990
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EXECUTIVE SUMMARY


The Air Force Medical Service is a vital part of the total force. The physicians who serve in this service provide medical care to the active duty members, their families, and others. Their efforts support Air Force readiness as well as the quality of life for all Air Force members. The medical care that they provide to our families is a major factor in the retention of all other groups of Air Force personnel.

There is concern in the Air Force that too many physicians are leaving the service prematurely. The Air Force desire is to maintain a stable cadre of motivated medical officers. If the Air Force loses too many physicians, Air Force military and medical readiness will be impaired, and the Quality of Life of Air Force families will be hurt. So there is a need to determine if we are losing too many Air Force physicians, and, if we are, determine how to correct the situation.

This paper will address the questions: 1) Are we losing too many physicians? 2) If so, what are the physician perceived problems that are causing them to leave? 3) How valid are the perceived problems? and 4) How can the perceptions of departing Air Force physicians be changed to improve their sense of job satisfaction and thereby improve the probability of physician retention?
BIOGRAPHICAL SKETCH

Lieutenant Colonel Lee P. Rodgers, MC, FS entered the Air Force in 1972 when he graduated from the USAF Academy. His first assignment was as a medical student at the Tulane University School of Medicine. After graduating in 1976, he did his pediatric residency training at the Navy Regional Medical Center, Oakland, Ca. After training, he was assigned to physician duties at the USAF Hospital at Misawa AB, Japan (79-81), and then at USAF Hospital at RAF Upper Heyford, UK (81-84).

While at Upper Heyford, Lt Col Rodgers first managed physicians. He served as Chief of Hospital services and supervised 16 other physicians. Subsequently, he repeated this duty at USAF Hospital Kirtland, NM. While assigned to Kirtland, he attended the Primary Course in Aerospace Medicine and earned his Flight Surgeon’s wings.

Immediately prior to attending the Air War College, Lt Col Rodgers served as the commander of the 42d Strategic Hospital at Loring AFB, ME. Over the last 11 years, Lt Col Rodgers has served in four different Air Force Hospitals in four separate major commands. He has been a supervisor of physicians and responsible for the quality and quantity of care given to the Air Force patient population. He has observed first-hand the problems that concern Air Force physicians and has tried to solve them at the levels that he served. Lt Col Rodgers is a member of the AWC class of 1990.
TABLE OF CONTENTS

I. INTRODUCTION .......................................................... 1

II. MAJOR MOTIVATORS FOR PHYSICIAN SEPARATION .................. 6
    Inadequate Pay. ...................................................... 6
    Ancillary support staff. ......................................... 13
    Hours worked. .................................................... 15
    Other concerns. ................................................... 17

III. SOLUTIONS .......................................................... 21
    Pay Shortfalls. ................................................... 22
    Ancillary Staff. ................................................... 23
    Medical Officer of the Day. ..................................... 24
    Acculturation. ..................................................... 25
    Military Indoctrination for Physicians. ....................... 25
    Mid-Obligation training. ........................................ 27

IV. CONCLUSIONS ..................................................... 31
INTRODUCTION

The United States Air Force is a national asset which employs state-of-the-art technology and recruits some of the best people in the world. The Medical Service is an important component of the Air Force. It assures personnel readiness and combat effectiveness through the care of Air Force people. The long term success of the Air Force Medical Service is related to the quality of the people that it retains. Further, the long term success of the Air Force relates to "Quality of life" issues for Air Force members and families, including the quality of the medical care that is provided. These are vital issues when Air Force members consider whether to remain in the service.

Since the mid 1980's, there has been a decline in the retention percentages of physicians serving on active duty in the United States Air Force. Still, there continues to be a loyal group of physicians who decide to remain on active duty. What factors contribute to some physicians separating while others continue to serve? If those factors which motivate physicians to separate could be and were changed for the better, would more Air Force physicians decide to continue serving?  

We are facing a new age in the uniformed services. Old power structures around the world are changing faster than anyone could have dreamed. There is a sense of euphoria in the United States and around the world. It appears that those conflicts which have been with us since World War II are fading, and that there is a decreasing possibility of war between the two superpowers. One would assume that the diminished chance of war would shrink the requirements for a standing medical service to
treat battle casualties.

Peace is breaking out at a time when there is increasing realization that the United States must make major budgetary changes if our economy is to survive. We must cut federal spending if we are going to be able to compete in the international arena. Because many people feel the Warsaw Pact is no longer the threat that it was just a few years ago, they assume that we no longer require a large standing army to defend ourselves and support our allies. If the threat is truly gone, it is argued that we should cut our defense budgets in direct proportion to those changes in Eastern Europe and the Soviet Union. The potential budget cuts in defense may come out of any area, but, if there is little chance of war, what is the need for doctors? If there is a lesser need for physicians to treat battle casualties, how many physicians are needed in the active Air Force? How many are needed to sustain the readiness of the active force and provide "Quality of Life" daily medical care to the members' families?

The maximum number of physicians who are authorized to be on active duty is set by congressional end-strength limits. The number of physicians who are actually present to treat our patients is the result of a dynamic process of inbound and outbound movement; accessions of physicians on Air Force scholarships, volunteers, and Uniformed Services University of Health Sciences graduates versus all types of losses due to physician voluntary separations, retirements, and other causes. Physician staffing, over the last few years, has generally kept pace with the authorized positions. However, this does not necessarily mean that the needs of the Air Force community health care are being met. For the health care planners of today's Air Force, a key question that must be answered is: "are we approaching a crisis similar to that we faced in the late
1970's where physicians were leaving and the Air Force health care needs were not being met? And if we are, what changes can we make to assure that Air Force personnel and their families will continue to enjoy the high quality health care that they have come to expect?"

Looking back to 1978, due to physician losses exceeding accessions, the Air Force had 330 physicians less than their authorized strength of about 3500. This was just prior to a major restructuring of the pay system for physicians. At that time the physician shortfall was approaching 10% of authorized staffing. Also at that time, health care inaccessibility was cited as a major irritant in exit surveys of Air Force personnel and their families when separating from all career fields. This problem was clearly stated by then Assistant Secretary of Defense for Health Affairs Dr. John Moxley III:

> Authorizations for physicians are budget constrained and seldom equal requirements. Furthermore, over the past few years, requested authorizations have been based on the number of physicians we could realistically expect to recruit and retain. Thus actual requirements exceed authorizations by a substantial margin.

Today we are facing a 4% physician shortfall and that is just the “tip of the physician loss iceberg.” I believe that we are now in a situation similar to the 1978 medical care crisis; that is not enough physicians and not enough productivity per provider to serve our customers. This is because true staffing needs are based on the population that is served. This involves all beneficiaries which includes retirees and their families. Because of the retiree population, the total number of beneficiaries has been growing in recent years. And whether the standing force is cut or not, these people will still be
waiting for care.

Below is the first of many graphs along with the raw data to show how successful the Air Force has been at maintaining its total authorized end strength of Medical Corps officers. It is for the total Medical Corps and does not reflect disproportionately poor staffing which may exist in certain specialties (radiology, orthopedic surgery, etc.). The graph does suggest a significant downward trend in percentages of filled Medical Corps officer positions, but changes which have already been implemented may turn around this trend. These changes will be discussed later in this paper.

**Medical Corps End Strength**

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Authorized</th>
<th>Assigned</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 83</td>
<td>3,745</td>
<td>3,781</td>
<td>100.96%</td>
</tr>
<tr>
<td>FY 84</td>
<td>3,857</td>
<td>3,763</td>
<td>97.56%</td>
</tr>
<tr>
<td>FY 85</td>
<td>3,867</td>
<td>3,888</td>
<td>100.54%</td>
</tr>
<tr>
<td>FY 86</td>
<td>3,992</td>
<td>3,973</td>
<td>99.52%</td>
</tr>
<tr>
<td>FY 87</td>
<td>4,019</td>
<td>4,004</td>
<td>99.63%</td>
</tr>
<tr>
<td>FY 88</td>
<td>4,099</td>
<td>3,983</td>
<td>97.17%</td>
</tr>
<tr>
<td>FY 89</td>
<td>4,172</td>
<td>4,020</td>
<td>96.36%</td>
</tr>
</tbody>
</table>
This paper will examine the major factors contributing to the illustrated decline. Then recommendations will be presented as to how these factors can be managed to improve physician retention and productivity.
MAJOR MOTIVATORS FOR PHYSICIAN SEPARATION

The retention of physicians is inextricably tied to the overall morale and motivation of these professionals. To understand the factors that contribute to morale and motivation, I have used a widely accepted motivation theory developed by Abraham Maslow. According to Maslow, all humans live with a hierarchy of needs. The most basic ones are physiologic, that is, the ones that are necessary for survival. These are followed by safety or security, belonging, esteem, and self-actualization.

He states that these needs are felt in order. One important point is that one need does not drive the actions of a person until those below it are satisfied. For example, a man will not be concerned about job satisfaction (esteem) if he is seriously hungry. On the other hand, someone who is full and who is working on a challenging project will not be motivated by the offer of food.  

Fig. 1
Air Force physicians, like all humans, are governed by Maslow's needs hierarchy. They have needs and possess perceptions about where they are in Maslow's hierarchy. While perceptions and reality may not be the same, perceptions often determine how a military physician will view his status and state in life. It is useful to see that the young Air Force physician often thinks of himself as a starving doctor in relation to his peers on the outside. For example, when I attended my ten year medical school reunion in New Orleans, my civilian classmates would not let me pay for any of my meals. They felt that they were doing so much better than me that they could afford to pay for the meals and that I could not. I, of course, was not destitute. But their perception, and my emotional response was, "Yes, I am poor in relation to my peers." The results of the needs or perception of needs for an Air Force physician is a key factor in the decision to stay or whether to leave the Air Force when the opportunity presents itself.

In 1989, the Air Force Surgeon General commissioned a survey of 1250 physicians to see what their perceptions were on a variety of issues. The first purpose was to see what factors were involved when a physician elected to leave the Air Force and how a Medical Officer Retention Bonus (MORB) would affect their decision. The number one reason that was given for separation by physicians in the 1989 HQ/AF study was inadequate pay. In one question, the physicians were asked whether they felt that their Air Force salary was appropriate compensation based on their specialty training, years of experience, and productivity. The results are shown in the attending graph (Fig. 2). Also, in two study questions that are shown in following graphs (Fig 3 & 4), you see that inadequate pay was either the first or second reason for leaving by approximately 47% of the physicians contacted. They assumed that they would be able to earn a sig-
significantly greater salary when they separated from the Air Force. Unfortunately, there is very little comparative compensation data available from the major medical professional organizations. The most appropriate information available, which I used in this study to

<table>
<thead>
<tr>
<th>PRIMARY REASON YOU PLAN TO LEAVE IN SPECIFIC NUMBER OF YEARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>133</td>
</tr>
<tr>
<td>25.33%</td>
</tr>
<tr>
<td>33-9</td>
</tr>
<tr>
<td>2.86%</td>
</tr>
<tr>
<td>33-5</td>
</tr>
<tr>
<td>25.33%</td>
</tr>
<tr>
<td>33-1</td>
</tr>
<tr>
<td>3.05%</td>
</tr>
<tr>
<td>33-1</td>
</tr>
<tr>
<td>25.33%</td>
</tr>
</tbody>
</table>

33-2 Inadequate Pay
33-4 Inadequate admin/ancillary support
33-3 Little control over career
33-5 Insensitivity of AF to family needs
33-8 Want own/private practice
33-1 Performing duties outside specialty
33-7 Ready/want to try something new, different
33-6 Shortage of physician staff
33-9 Other *
Fig. 3
provide civilian physician annual compensation rates, comes from the American Academy of Family Physicians (AAFP). While the salary data may not be exactly comparable to the Air Force pay scales for physicians, it is adequate to make my point. It is common knowledge that there is a real difference between the income of many specialty physicians in the Air Force and those who are working in civilian practice. The question at issue is the "significance" of that difference.

The importance of this question can be explained with Maslow's hierarchy. At what point is salary a motivating factor? Also, and more to the point, at what point is it a demotivating factor? Below a certain level it is considered a hygiene factor. At that point

![Graph showing other primary reasons to leave the AF](image)

- 22-4 Inadequate admin/ancillary support
- 22-2 Inadequate pay
- 22-3 Little control over career progression
- 22-5 Insensitivity of AF to family needs
- 22-8 Want own/private practice
- 22-7 Ready/want to try something different
- 22-1 Performing outside specialty
- 22-6 Shortage of MC staff
- 22-8 Moved around too much
- 23-xxx Other

Fig. 4
income, the individual is dissatisfied rather than unsatisfied. If you are un-satisfied, you would like to have more. If you are dis-satisfied, all the other issues become more irritating. Then the physician is likely to say, "they aren't paying me enough to put up with this" and seek employment elsewhere.

The significance of this is that the income does not have to equal or even compete with what is available on the outside. It must, however, be sufficient to satisfy the basic needs of the family in the context of the physician's earning potential. Let's take one example. An orthopedic surgeon earns $85K in the Air Force compared to approximately $250K in civilian practice. But if the practice is satisfying and the family needs are met, there is no strong desire to leave for the higher salary. The salary is a siren song that is not heard.

The American Academy of Family Physicians has published a compilation of statistics concerning their members and their practices. Facts About Family Practice was published in 1987 and has the most current data available.

The statistics on salaries collected by the AAFP are as below:
Median and Mean Individual Income before Taxes

<table>
<thead>
<tr>
<th>n</th>
<th>Median($K)</th>
<th>mean($K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL FP'S</td>
<td>7098</td>
<td>74.8</td>
</tr>
</tbody>
</table>

Census Division

<table>
<thead>
<tr>
<th>Division</th>
<th>Median($K)</th>
<th>mean($K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New England</td>
<td>314</td>
<td>59.8</td>
</tr>
<tr>
<td>Mid-Atlantic</td>
<td>681</td>
<td>74.7</td>
</tr>
<tr>
<td>East North Central</td>
<td>1208</td>
<td>77.3</td>
</tr>
<tr>
<td>West North Central</td>
<td>880</td>
<td>74.6</td>
</tr>
<tr>
<td>South Atlantic</td>
<td>1152</td>
<td>75.0</td>
</tr>
<tr>
<td>Pacific</td>
<td>1188</td>
<td>70.4</td>
</tr>
</tbody>
</table>

Type of Practice

<table>
<thead>
<tr>
<th>Practice</th>
<th>Median($K)</th>
<th>mean($K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solo</td>
<td>3140</td>
<td>76.0</td>
</tr>
<tr>
<td>Two-person partner</td>
<td>1046</td>
<td>71.9</td>
</tr>
<tr>
<td>FP Group</td>
<td>1937</td>
<td>74.5</td>
</tr>
<tr>
<td>Multi-spec Group</td>
<td>937</td>
<td>72.3</td>
</tr>
</tbody>
</table>

Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Median($K)</th>
<th>mean($K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 36 years</td>
<td>1932</td>
<td>60.0</td>
</tr>
<tr>
<td>36-45 years</td>
<td>2184</td>
<td>78.2</td>
</tr>
<tr>
<td>45-55 years</td>
<td>1178</td>
<td>87.2</td>
</tr>
</tbody>
</table>

As you can see, the income does increase as the physician's practice matures. The period that we are primarily looking at is when he is 33 to 36 years old, since that is the typical time that an Air Force physician is first eligible for separation after completing his initial commitment. For comparison, let's use the typical Air Force Family Practitioner who is providing the bulk of the primary care to our active duty members and other beneficiaries. When this physician is eligible for separation, he typically has five to six years creditable service and is a captain or major. For the purpose of this
paper, I have used a major with more than four years of creditable service. His annual salary will add up as follows:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Pay</td>
<td>$30736</td>
</tr>
<tr>
<td>Quarters allowance</td>
<td>$6924</td>
</tr>
<tr>
<td>Rations</td>
<td>$1435</td>
</tr>
<tr>
<td>Variable Special Pay</td>
<td>$5000</td>
</tr>
<tr>
<td>Board certification pay</td>
<td>$2500</td>
</tr>
<tr>
<td>Additional Special Pay</td>
<td>$15000</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>$61595</strong></td>
</tr>
</tbody>
</table>

If he elects to take the Medical Officer Retention Bonus (MORB) for a four year contract, you add another $8000 per year. This shows that the physician who leaves the Air Force is not moving to a significantly higher paying situation. In fact, he is likely going to be entering a period of lower pay for at least the first years of his civilian practice. If this physician stays in the service, by the time he is a Lieutenant Colonel with 16 years in service, his salary as a family practitioner will be over $90,000 per year. Of course there are many anecdotal reports of much higher salaries in civilian practice, but we should not base our pay structure on those.

The purpose of this comparison is to show, that salary alone is not the deciding factor in physician morale, motivation, and ultimately, retention. Therefore, simply providing additional bonuses to the Air Force physician’s salary may not keep him motivated or in the Air Force. It is necessary to attend to those institutional factors that decrease physician job satisfaction if we are to hold on to more physicians.
The second most common complaint of those physicians leaving the AF is inadequate ancillary support of the physician staffing. Many physicians feel hindered by the need to take care of many clerical and nursing duties which could and should be performed by other staff members. Examples are: calling the laboratory and radiology for results, fighting the Autovon system to contact consultants, and making arrangements for follow-up appointments.

Unfortunately, because of the wide variety of medical practice types, there is no data available to compare the ratio of ancillary personnel to physicians in civilian practices versus the ratio in Air Force medical facilities. In personal discussions with civilian physicians, I have found there is typically a ratio of about 3 or 4 staff for every physician. The Air Force maintains the ratio at about 1.8 to 1. One major difference between these two numbers is that the Air Force ratio is driven by end strength authorizations. There are manning formulae which are a basis for local authorizations. However, in my opinion, these are the bare minimum necessary to “open the doors.” They are not adequate to run a clinic or hospital efficiently. Supporting my opinion, in those settings that are operated on a “for-profit” basis, staffing is adjusted to create the greatest revenue and maximize profitability. Clinic managers add more staff to support the physicians as long as the additional personnel cost allows the clinic to generate enough additional income to make the expense worthwhile.

This concept is very clearly illustrated in The Goal by Goldratt and Cox. In that excellent book, the ‘goal’ of any business enterprise is to make money. All other goals, whether they are low inventories, efficiencies, or high productivities are worthless if they do not advance the primary goal. In the book, a manager of a plant faced with clo-
sure had to discover which activities were crucial to the profitability of the plant. He found that actions were dependent and time constrained. This means two things. First, one process cannot be initiated until those ahead of it in the queue are done. Second, if the critical steps are delayed by preceding actions, the total output of the crucial processes and thereby the entire plant are decreased. Because of this, he discovered that to make the plant more effective, he had to assure the most efficient operation of several key areas. All other activities in the plant had to support those key areas for the plant to be a success. 13

We can compare a hospital or a clinic to a factory which creates a product. In the Air Force, that product is the health care which is provided to our beneficiaries. The time that the patient spends with the physician is not only the most important part of his/her visit, it is also the most expensive part of the visit in terms of employee costs. If we accept that the medical care dispensed is primarily the activity that occurs when the patient is evaluated and treated by the physician, then it follows that the system must adjust to speed and optimize the throughput of that activity. If the manpower equation used to staff the clinic/hospital doesn’t optimally contribute to that goal, it is invalid and should be changed.

The people involved in this manpower equation support a variety of functions. There needs to be adequate nursing staff to assure that patients are prepared appropriately for their appointments and that the treatments are given. Clerical support is necessary so that the physician’s time is free for direct patient care rather than chart preparation. Another critical area for improvement is the central appointment function. Currently there is a bottleneck built into the system at the hospital’s first point of patient
contact. When the scheduling of twelve to fifteen health care providers is limited by the activities of a single GS-3 appointments clerk, there are bound to be difficulties in matching the appropriate type of patient appointments with the needs of the population.

Another measurement that Air Force physicians are concerned about when considering staying or leaving is the number of hours that they work compared to their civilian counterpart. In the same AAFP publication, there is a breakdown of weeks worked and the number of hours worked per week. The Air Force compares very favorably with the numbers that are shown. In the table below, "Direct Care per Week" is the number of hours that the physicians reported that they were directly involved in treating patients. The "Non-care per week" is time that was spent in other duties. This would include committee work, chart reviews, business responsibilities, etc.:

<table>
<thead>
<tr>
<th>Weeks/year</th>
<th>total hours per week</th>
<th>Direct Care per week</th>
<th>Non-care per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.5</td>
<td>58.6</td>
<td>49</td>
<td>9.6</td>
</tr>
</tbody>
</table>

**Type of practice**

- Solo: 48.9, 58.8, 49.5, 9.3
- Non-Solo: 48.0, 58.3, 48.4, 9.9

**Employment Status**

- Self-employed: 48.6, 59.5, 50.2, 9.3
- Employee: 48.0, 55.3, 44.6, 10.7

**Physician Age**

- Less than 36 years: 48.4, 59.1, 49.6, 9.5
- 36-45 years: 48.2, 60.9, 50.5, 10.4
- 46-55 years: 48.7, 59.8, 49.9, 9.9

14
Although we cannot directly compare these figures, we can make some generalizations. First, let's describe a typical month of 21 duty days for a family physician in the Air Force. The work day is generally from 0730 to 1700. During this period, the physician will see clinic, do ward rounds, and perform administrative duties. Additionally, there may be Continuing Medical Education, Readiness Training, appointments across base, and a lunch period. Likewise, in each month, there will be two to three MOD periods. Calculating the total number of hours that the physician must be present for duty, we get 215 to 230. This is a very crude figure and would vary from month to month. However, if there is an error, it would be on the high side, since it doesn't take into account leave or educational TDY's. (Also, a specialist such as an internist or obstetrician, would have contact hours resulting from night call, depending on the specialty.)

If you compare that to average civilian FP, who averages 238 hours per month, you can see that the practice on "the outside" is not inviting due to requiring less direct contact hours. Therefore, there must be a different reason for wanting to move into that situation. The perceived problem with salary, hours and other institutional problems is that they all affect the morale of the physician force. We must remember that the morale of Air Force physicians suffers because they feel that the Air Force makes the delivery of high quality health care unnecessarily difficult. They will leave as soon as they are able in order to go to a system that they feel will do a better job for themselves and their patients.
HQ/SAC SG performed a study in which they contacted only physicians who were leaving the Air Force. This is a different subset of Air Force physicians than those contacted by the HQ AF/SG survey. However, these separating physicians are a very important group (n=51) since they are the ones who felt strongly enough about the issues for them to leave. One question that HQ SAC/SG asked was:

“What do you consider the most decisive factor influencing your decision to separate? NOTE Only one response per person.”

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>TOT#</th>
<th>% RESPONDING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unhappy with assignment location</td>
<td>8</td>
<td>(16%)</td>
</tr>
<tr>
<td>Frequent call/MOD duty</td>
<td>7</td>
<td>(14%)</td>
</tr>
<tr>
<td>Lack of quality support personnel</td>
<td>7</td>
<td>(14%)</td>
</tr>
<tr>
<td>Pay</td>
<td>5</td>
<td>(14%)</td>
</tr>
<tr>
<td>Personal reasons</td>
<td>4</td>
<td>(8%)</td>
</tr>
<tr>
<td>Lack of training opportunities</td>
<td>4</td>
<td>(8%)</td>
</tr>
<tr>
<td>Poor executive mgmt/leadership</td>
<td>3</td>
<td>(6%)</td>
</tr>
<tr>
<td>Treatment by higher level mgmt</td>
<td>3</td>
<td>(6%)</td>
</tr>
<tr>
<td>Work hours</td>
<td>2</td>
<td>(4%)</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>(16%)</td>
</tr>
</tbody>
</table>

They were also asked to rate several factors on a scale from a low of 1 to a high of 10 as to how they influenced their decision to separate. The results of this question are below:
AVERAGE

Support Personnel availability 8.0 (18 rated 10)
MOD coverage 7.7 (12 rated 10)
Executive Management 7.5 (9 rated 10)
Pay 6.4 (5 rated 10)
Inability to Control My assignment 6.3 (8 rated 10)
Equipment availability 6.2 (7 rated 10)
Work hours 5.6
Productivity standards 5.6
Medical Readiness training 4.9
Assignment location 4.6
Office/Exam room space 4.4
Unwillingness of support from AFIPC 3.8
Risk of having to go to war 2.9

Realizing that Strategic Air Command has many of its hospitals in cold and remote locations accounts for the assignment location concern. That is also a problem that is beyond the scope of this paper as you must go where your customers are located. In both surveys, the Medical Officer of the Day (MOD) is one duty widely named as a cause for dissatisfaction. This is duty by the medical officer in the Emergency Room and is similar to sitting alert. He is responsible for all patients that come into the hospital for care who cannot be triaged to a more appropriate venue. The patient problems range from the typical minor illness or injury up to and including cardiac arrests and major trauma. There are many reasons that physicians dislike this duty. It is physically exhausting. It involves treating an unpredictable number of patients (0-60) over the period of duty (8-24 hours).
The most difficult part, though, is that the physician has the potential to see patients with problems that his training has not prepared him to competently treat. This creates an incredible amount of anxiety. The orthopedic surgeon who is faced with a febrile baby is just as anxious as the pediatrician who greets a retired gentleman with chest pain. In both cases there is a risk that the patient may die. In each case, a physician who is competent, properly trained and credentialled may miss the subtleties that separate a life-threatening condition from what usually is a simple minor illness. Being best in your own specialty is no comfort when you are in this situation, nor does it protect the patient from potential injury. Besides the anxiety that the physician feels for the patient and himself, this situation also creates anger, and a strong desire to escape the system that is responsible for that anxiety.

A way to understand this response is to realize that medical education is a series of steps where the fledgling physician is not only gaining knowledge, but also growing in confidence. At each step of this process, the young physician is being observed and supported by more experienced physicians who are teachers, consultants, and supervisors. The consultant, because he is the one who is credentialled to perform the treatments that the new physician accomplishes, is also ultimately responsible for the outcome. He is the one who is blamed if anything goes wrong. At one point, though, the new physician leaves the nest and accepts this responsibility. This process can be illustrated by an apocryphal conversation between an intern and a senior staff physician:
Intern: How is it that you can make so many good decisions?

Staff Physician: That comes from experience.

Intern: Then how do I get the experience to do the same?

Staff Physician: Very simple... Just make a lot of bad decisions.

Since most physicians entering the Air Force do so immediately following their residency training, this is often the first situation where the young physician carries the final responsibility for the results of his action. At the same time, this is when he has the lowest confidence level of his career. He feels anything that affects the outcome of a patient event over which he does not have complete control is bad. Since the AF controls the tools, the supplies, the work schedule, the support structure, etc., it is the villain in the picture.

In addition to the problems discussed above, the HQ/SAC study revealed many other reasons for separation (poor leadership, poor training opportunities, poor treatment by higher levels of management) 17. One common thread that runs through them is that many of the exiting physicians did not feel that things were running properly. They did not feel that they had a large enough say in the important decisions that affected their patients and their practice. This is a common enough problem in almost every business endeavor. What is significant here is that these employees are uniquely qualified to take their job skills elsewhere.
SOLUTIONS

As described in the first chapter, there is a shortfall in the staffing of physicians in the Air Force. While 3.6% of the total authorized strength may not look like a significant shortfall, the problem is really larger than that. In most facilities, especially those in the South, there is a wide disparity between the total capability of an Air Force facility and the demands of the beneficiary population that it serves. This is not lost on the physicians responsible for that care. Feedback from the field suggest many of those on active duty, and most of those that are leaving are angry. They are angry because they feel they are not compensated fairly for their skills. They are angry because they feel the 'system' works against their best efforts to provide quality medical care to their patients. They are angry because they feel that the Air Force is a faceless, insensitive bureaucracy that runs contrary to common sense.

In this chapter, I will outline some possible solutions to the problems that have been discussed. Copernicus looked at the stars and asked why couldn’t the earth be revolving around the sun instead of the other way. This was 180 degrees out of step with the conventional wisdom of the period. Let us consider some ‘Copernican questions.’
PAY SHORTFALLS

The Air Force now has a system that provides the MORB category VI and VII physician with a salary that is very competitive. On the other hand, the salaries offered surgeons and other physicians who are paid from procedure oriented practices are a fraction of what they could earn in private practice. Without major revisions in the pay structure for Air Force physicians, it will be impossible to compete on a dollar basis for these doctors. However, based on what we have seen, I do not feel that a simple increase in salary would be an appropriate solution.

One possible way to solve the salary problem involves the concept of adequacy. How much is enough? Stating that another way, what level of income would be necessary to meet the reasonable financial goals of a young physician? The answer will be unique for each individual, but it is plausible that if the income is kept at a level that meets his goals, he will be unlikely to feel that his skills are being wasted.

I suggest that rather than trying to match the dollars that civilian practice can bring to the young doctor, the Air Force can help him reach his financial goals on the salary that he already is earning. Give him the services of financial planning professionals. Set up an Individual Retirement Account from current funds which will supplement the Air Force retirement. Develop savings programs to cover educational expenses for his children. Give counseling on insurance for the security of his family. If they are convinced that they have a program that will assure a comfortable retirement for themselves, a quality education for their children, and security for their families, the physi-
cians and their spouses will have less anxiety and would not feel that they needed to get out to make the 'big bucks.'

ANCILLARY STAFF

As stated in the problem statement there is a need for an increase in the number and stability of the support staff in the hospitals. This is not merely to satisfy the desires of the physicians. It is to provide better care to our patients. This has already been recognized by the senior leadership of the Air Force. There are going to be 2000 personnel authorizations (1000-FY91, 1000- FY92) given to the the AF Medical Service from the line positions. This is a terrific investment in the future of the medical service which will surely be returned in money saved and patient satisfaction. It is unclear whether this will be adequate to turn around physician retention, but it a large step in the right direction.

Equally as important as how many people are added to support the physicians in patient care is the training and duties that these additional people will receive. As stated above, the intent is to maximize the time that the physician spends in direct patient contact. If we just add bodies to the organization without looking at changing the process, the gain for our patients would be very limited.

The new staff members that we get should be paraprofessionals who can have complex duties delegated to them. This would entail adequate training to make independent decisions in support of the operation. Additional entry level technicians, unless we restructure the processes, would merely displace our volunteer helpers. These indispensable people provide services and have a terrific impact on our
activities. They also are a vital link between the hospital and the community. However, they have very limited training, and they are often assigned on an *ad hoc* basis.

Additional study is necessary to decide how to best blend the skills that each group brings to the operation. Since the civilian medical community has been studying this problem for some time, they should be the people that we first go to for a model. It is also important that any staffing model should be based on comparable hospital size and function.

**MEDICAL OFFICER OF THE DAY**

The current method for treating patients in the Emergency Departments of the Air Force hospitals is inefficient use of our providers' skills. We could treat more orthopedic patients if the orthopedists were in their clinics and not in the ER. We could treat more surgical patients if the surgeons were in the operating room. However, the solution is not merely excusing certain classes of physicians from this duty. That would create a serious rift between those physicians who do not have to perform this duty and those who do. What's more, the duty would then be distributed among a smaller group of primary care specialists who already have more patients than they can get to. Also, since the primary care practitioners are the "gatekeepers" for care in the hospital, a patient who cannot be seen in the Family Practice clinic will not be referred to the Orthopedic clinic or any other higher level of care. Therefore, they would probably seek care outside of the direct Air Force care system, which is more expensive both to the patient and to the government.
What is required is a new group of physicians whose primary responsibility is the ER and who do not have regular patients that depend on them for routine follow-up care. This type of system has already been implemented in some of our larger hospitals. The measurable advantage for the Air Force would be in increased utilization of high cost inpatient facilities such as the operating rooms. Additionally, since these physicians would be in their primary area of responsibility instead of seconded from their own department, they would not act as if this duty were interfering with their specialty. This would resolve a situation which has been a major irritant for our patients. Finally, and most important, a group of physicians who work routinely in the Emergency Room would be able to provide the best care available.

ACCULTURATION

One point that has been mentioned briefly is the culture of the medical profession.

As discussed before, a physician has many rites of passage that separates the initiated from the unwashed. This is described by Kertzer in his article on rituals.

Our self image, and the image we have of others, is crafted in part through a process of identification between the individual and larger groups, be they ethnic, religious, political, or whatever.... Ritual provides one of the most efficient ways for these identifications to be made. I wear certain clothing, I say an oath, I sing a song...and by doing so I consider myself and am considered by others to belong to a particular group....To eschew such ritual participation - as in the cases of cousins who never attend each others family's weddings and funerals - is in fact to redefine oneself outside the family group.  

There is a very real cultural conflict between the physician and the military profession. This goes beyond the paradox of being a healer in a group that has as its
stock—in—trade the tools for the destruction of people and things. Physicians who enter the Air Force are assumed to acquire the values of the organization without an effective process that immerses them in the culture of the group. However, since a significant acculturation process does not occur, many physicians continue to consider themselves outside of the Air Force group.

Most non-physician members of the military enter through their own rites of passage such as basic training, Officer Candidate School, Reserve Officer Training, or the Service Academies. They are acculturized to the service. The best example that we have of this process is the U.S. Marine Corps. At the end of their indoctrination, Marines do not consider that they are temporarily working for the Corps; they are the Corps. They are meta-actualized.

On the other hand, most of the physicians on active duty in the Air Force today have entered by volunteering or having received financial assistance from the Air Force in the Health Services Scholarship Program (HPSP). Their Air Force training has been at a two week program at Sheppard AFB called Military Indoctrination for Medical Service Officers (MIMSO). There, they are taught the most rudimentary principles of Air Force life. At the outset, they are told that they are now to be called Captain instead of Doctor. Since the "Captain" title was earned by being able to pass a physical examination and raise their right hand, there is little to feel that this is a significant act. To many new physicians this is felt as a terrible demotion. After working for at least seven years to earn an honored place as a "doctor" in their own society, they are now indistinguishable from mere mortals in a totally new one.
After two weeks of training, they are sent to their assignments. There has not been much in the way of acculturation, certainly not like the meta-actualization of the Marines. It is no wonder that a young captain living in Limestone, Maine has difficulty understanding why anything he does is valuable to the Air Force or the nation. It is also obvious why he does not feel that he is part of the community. He was never fully made part of it. I have been told by several physicians that they do not even believe that it is possible for a person to live as part of the two different professions. 

I propose that we change the indoctrination procedure for physicians. To understand their role in a system, they need to be shown where that system has come from and where it is going. They need to know where they fit in and how their efforts make a difference in the security of our country. They need to feel that they have gone through some sort of challenge and a rite of passage to become part of the organization. MIMSO does not meet these requirements. That is why I feel that we should require that the entering physicians attend a program such as Officer Candidate School. This could be accomplished at the time of accession for volunteers or between school years for HPSP students.

The return for the student would be those that are mentioned above. The Air Force would gain by having a better idea what kind of person/physician we are getting. This would help in assignment and graduate medical education selection. Additionally, once the physician arrived at his first duty station, he would be much better prepared to perform those non-medical duties that his military rank would require.
Another educational effort which would probably help with the overall retention of the medical corps members would be a course midway through their initial obligation. To see why this would be so valuable, one must see how the physician advances in his understanding of military medicine.

As stated above, the physicians who enter the AF are given two weeks of training at MIMSO to learn the most fundamental principles of Air Force life. Then they are sent to their assignments, where they are put to work. There is no further formal military training for most physicians until they are selected to be Chief of Hospital Services (SGH). At that time, they are usually sent to a two week training program in management and quality assurance. There is no point in between where he is trained to understand management of health care systems, let alone to be a military leader. The emphasis during this part of the career is, appropriately, to allow him to become highly competent in his clinical job.

The problem begins when the physician is given a leadership position in the hospital, and then is expected to be as competent in administrative duties as he is clinically. Often, in small hospitals, captains are selected to be SGH during their initial service commitment. Next to the commander this is the senior physician position in the hospital, and it entails many critical responsibilities. He is the manager of all the other physicians in the hospital. He oversees all the scheduling and operational aspects of care, as well as the quality assurance program for the hospital. In the flying community, this is equivalent to the operations officer of a flying squadron.
A way to improve the capabilities and 'mesh' of the physicians would be to give them some sort of advanced training earlier in their Air Force careers. I propose a one week course that all physicians would attend at the mid point of their initial active duty assignment. This would be similar to the “First Team/First View” type programs that the Strategic Air Command has for its young members. The curriculum could be flexible depending on the experience level of the physicians in attendance, but I would suggest several possibilities:

1. Continuing Medical Education - Many physicians are unable to attend any CME during the first two years of their assignment. If the program were presented at one of the major medical centers such as Wilford Hall, they would be able to attend Grand Rounds, etc. in their specialty. Also, they could use this time to meet and develop professional relationships with the consultants to whom they refer their patients.

2. Air Force leadership and Quality Assurance management - The basics of officership responsibilities, supervisory skills and other duties could be reviewed at this point. Also, since they have become familiar with the quality assurance program at the local level, their experience can be reinforced by formal training on credentialling, peer review and committee management.

3. Surgeon General Feedback - This would be part of a Total Quality Management program. If the young physicians were given the charter to
develop recommendations for the Surgeon General on how to improve the overall health care system, we (the Air Force) would gain many dividends. First, we would be given the best feedback available from the very people who are responsible for the final product. Secondly, when they are "brought into the loop" on quality issues, they will feel more responsible to the system. They are being told, in effect, "You are the Air Force. You are the ones who have the insights to make the right decisions." This would go a long way of removing the we-they conflict.

In addition to the formal training, there should be a variety of informal social events that would, if handled properly, be great for group cohesion. For the cost of a few chartered buses and some planning, you could create an evening that would improve morale and camaraderie as well as send the message that these young physicians are valuable members of the Air Force team.
CONCLUSIONS

The purpose of this paper was to show that several problems remain in the management of the physician force in the U.S. Air Force. There is a great deal of interest in this issue by both the senior leadership of the service as well as the patients that are treated by these physicians.

Several issues have been discussed as well as some possible solutions to them. In my opinion, the most obvious factor in physician retention, salary, is not the most important. Money is important, but only to the extent that it distracts the physician from concentrating on more important issues. With current and projected pay increases, the salary of the majority of the medical corps will be very competitive with what they could expect in private practice.

The major problem, which I do not feel has been adequately solved, is the number and quality of ancillary staff that work with the physicians. The frustration that this causes makes the pay issue affect morale more than it should. As stated before, the major problem facing our patients is a shortage of hospital staff which causes accessibility and productivity to suffer. In the long run, this costs the Air Force and our patients money. That alone should be an adequate justification for funding adequate manpower positions to efficiently run our facilities and designing a support process which optimally uses the ancillary staff to enhance physician productivity.

The difficulty of cultural conflict is one that should be corrected. In any organization, members who are part of the culture are generally more successful at their duties. Also, by satisfying the social needs of the new member, it is possible for him to move
further up his own pyramid and become a better satisfied person. There are obviously many physicians who value their role in our nation's defense and feel at home in the Air Force. If we could communicate those intangible rewards to the young physicians, we will be doing a better job for them and for our patients.

Finally, the most important people in this system are the patients. Air Force members sacrifice their time and risk their lives to protect our country. It is our duty to assure that they will always have the very best medical care that we can. By correcting several of the problems that have been discussed, I feel that we will be doing a much better job for them.
NOTEs AND BIBLIOGRAPHY

1. This paper is the product of research that has been done in the current literature, documents that have been provided to me by members of several headquarters staffs and personal communication with various people. The members of the AF/SG staff were invaluable in their support of this paper. They are Lt Col H.B. Nicholson, MSC, Lt Col Priscilla Worral, NC, Lt Col Steven Sem, BSC, and Robert J. Opsut, Ph.D.


4. Personal conversation with Lt Col H.B. Nicholson at HQ/AF SGHP on 15 Dec 89. This was derived from data compiled by the SG Physician Retention Working Group.

5. Managing for Productivity[ODI 1985] This was part of an elective course given by Col Dick Clark to the Air War College Class of 1990.


7. For simplicity and the purposes of this paper, unless gender is specifically required for clarity, I have used the third person pronoun “he” to refer to both male and female doctors. The Air Force has many talented and dedicated physicians of both genders, and the use of only one set of pronouns is not intended to imply that the issues involved are unique to males only.

8. AF/SG study[AF/SG 1989] This was a telephone survey commissioned the Air Force Surgeon General (AF/SG). Market Facts, Inc. of Evanston, Il, an independent contractor, contacted 1250 Air Force physicians between 12 and 28 Jun 89. Although it was keyed to look primarily at the effect of the Medical Officer Retention Bonus(MORB), there were many questions on a variety of subjects pertaining to job satisfaction.

9. HQ/AF SG telephone survey

10. AF/SG study

11. Facts About: Family Practice, p. 72

12. Personal conversation with Dr. Charles Pribyl, MD, orthopedic surgeon in Lagrange, GA, Oct 20, 1989. Dr. Pribyl is a 1976 graduate of the USAF Academy who did his orthopedic residency at Tulane University in New Orleans. He left the Air Force in 1987 to pursue additional training and enter private practice.


15. HQ/SAG SG phone survey, 1989, p. 2. This was a survey of physicians leaving the Air Force whose last duty station was a SAC medical facility. The research was conducted by members of the SAC/SG staff.


17. HQ/SAC phone survey

18. Comments by Gen Russ, Commander TAC, made during a question and answer period at the Air War College on 21 Nov 89.

19. Point paper AF/SGHP, Lt Col Nicholson, HQ/AF SGHP, 17 Jan 90


21. Personal correspondence with Steven M. Diehl, MD, Charleston WV, Jan 3, 1990. Dr. Diehl is a 1973 graduate of the USAF Academy who left the Air Force in 1986. He is a radiologist in private practice.