USAFA-TR-87-3

(12)

A COMPARISON OF MILITARY AND CIVILIAN SECTOR PILOT CAREERS

MAJOR R. THEODORE ROTH
AND
CAPTAIN DAVID C. NIELSEN

DEPARTMENT OF ECONOMICS AND GEOGRAPHY

APRIL 1987
FINAL REPORT

APPROVED FOR PUBLIC RELEASE;
DISTRIBUTION UNLIMITED

DEAN OF FACULTY
UNITED STATES AIR FORCE ACADEMY
COLORADO SPRINGS, COLORADO 80840

This research report is presented as a competent treatment of the subject, worthy of publication. The United States Air Force Academy vouches for the quality of the research, without necessarily endorsing the opinions and conclusions of the authors.

This report has been cleared for open publication and/or public release by the appropriate Office of Information in accordance with AFR 190-1 and AFR 12-30. There is no objection to unlimited distribution of this report to the public at large, or by DDC to the National Technical Information Service.

This research report has been reviewed and is approved for publication.

ROBERT L. JAMES, Lt Col, USAF
Director of Research, Studies
and Analysis

UNCLASSIFIED
SECURITY CLASSIFICATION OF THIS PAGE

A180992

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED	1b. RESTRICTIVE MARKINGS
2a. SECURITY CLASSIFICATION AUTHORITY	3. DISTRIBUTION/AVAILABILITY OF REPORT
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE	
4. PERFORMING ORGANIZATION REPORT NUMBER(S) USAFA-TR-87-3	5. MONITORING ORGANIZATION REPORT NUMBER(S)
6a. NAME OF PERFORMING ORGANIZATION Department of Econ & Geog Dean of the Faculty 6b. OFFICE SYMBOL (If applicable) USAFA/DFEG	7a. NAME OF MONITORING ORGANIZATION
6c. ADDRESS (City, State and ZIP Code) U.S. Air Force Academy Colorado Springs CO 80840-5000	7b. ADDRESS (City, State and ZIP Code)
8a. NAME OF FUNDING/SPONSORING ORGANIZATION 8b. OFFICE SYMBOL (If applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER
8c. ADDRESS (City, State and ZIP Code)	10. SOURCE OF FUNDING NOS. PROGRAM ELEMENT NO. / PROJECT NO. / TASK NO. / WORK UNI NO.
11. TITLE (Include Security Classification) A Comparison of Military and Civilian Sector Pilot Careers (Unclassified)	
12. PERSONAL AUTHOR(S) Roth, R. Theodore, Major and Nielsen, David C., Captain	
13a. TYPE OF REPORT Final 13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Yr., Mo., Day) 87 Apr 15. PAGE COUNT 45
16. SUPPLEMENTARY NOTATION	

17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)
FIELD	GROUP	SUB. GR.	ISO Quant - Field 5, Group 3 OJT Cost - Field 5, Group 3
05	03	Economics	

19. ABSTRACT (Continue on reverse if necessary and identify by block number)

This report provides an economic comparison of military and civilian pilot careers. We acknowledge that individuals have certain psychic factors which are important to them. However, we feel that the economic factors presented in this research explain most of the behavior shown by individuals.

The Air Force provides excellent career opportunities. The compensation and benefits available to officers compare very favorably with those of an "average" non-flying private sector job. However, a direct comparison of pay and benefits between the two flying careers shows that the Air Force does not compare as favorably with the major airlines. Not only are we lower in terms of compensation but we also face problems in almost every non-pecuniary job characteristic. If a pilot can provide sufficient income or savings during the uncertainity of the first few years with an airline, it would be a rational choice to separate from the Air Force.

The information provided in this report may be used in two ways. First, to allow each individual pilot to make a well informed choice about whether or not to remain in the Air Force. Second, this information can be used by Air Force policy makers to provide programs and policies which will allow the Air Force to compete in the marketplace for trained pilots.

20. DISTRIBUTION/AVAILABILITY OF ABSTRACT UNCLASSIFIED/UNLIMITED ☒ SAME AS RPT. ☒ DTIC USERS ☐	21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED
22a. NAME OF RESPONSIBLE INDIVIDUAL Major R. Theodore Roth	22b. TELEPHONE NUMBER (Include Area Code) (303) 472-3549 22c. OFFICE SYMBOL USAFA/DFEG

DD FORM 1473, 83 APR EDITION OF 1 JAN 73 IS OBSOLETE.

UNCLASSIFIED
SECURITY CLASSIFICATION OF THIS PA

A COMPARISON OF

MILITARY AND CIVILIAN SECTOR

PILOT CAREERS

BY

R. THEODORE ROTH
MAJOR, USAF

AND

DAVID C. NIELSEN
CAPTAIN, USAF

UNITED STATES AIR FORCE ACADEMY
COLORADO SPRINGS, CO

APRIL 1987

ABSTRACT

This report provides an economic comparison of military and civilian pilot careers. We acknowledge that individuals have certain psychic factors which are important to them. However, we feel that the economic factors presented in this research explain most of the behavior shown by individuals.

The Air Force provides excellent career opportunities. The compensation and benefits available to officers compare very favorably with those of an "average" non-flying private sector job. However, a direct comparison of pay and benefits between the two flying careers shows that the Air Force does not compare as favorably with the major airlines. Not only are we lower in terms of compensation but we also face problems in almost every non-pecuniary job characteristic. If a pilot can provide sufficient income or savings during the uncertainity of the first few years with an airline, it would be a rational choice to separate from the Air Force.

The information provided in this report may be used in two ways. First, to allow each individual pilot to make a well informed choice about whether or not to remain in the Air Force. Second, this information can be used by Air Force policy makers to provide programs and policies which will allow the Air Force to compete in the marketplace for trained pilots.

TABLE OF CONTENTS

ILLUSTRATIONS

FIGURES

TABLES

APPENDIX

A COMPARISON OF MILITARY VS. CIVILIAN SECTOR PILOT CAREERS

Every pilot in the Air Force is faced with the decision to remain with the Air Force, or to separate and move to the private sector. Many AF pilots are lured by the flying opportunities in the private sector. In order to make a rational decision about staying in the Air Force, or separating, each individual needs the best information possible. He must compare the future expected benefits (both compensation and non-pecuniary aspects) of the alternatives and decide which career choice best enables him to meet his objectives and those of his family. This is a fairly simplistic view of the economics of individual choice. For a more rigorous description of the individual pilot's career decision see The Determinants of Career Decisions of Air Force Pilots, a doctoral dissertation by R. Theodore Roth, The Massachusetts Institute of Technology, 1981.

This paper will attempt to present as much information as possible about the many aspects of comparing the military and civilian pilot careers. No attempt will be made to discuss non-flying jobs in the private sector. Comparisons will be made solely between the Air Force and the major airline carriers. (The airlines considered for the purposes of this report are: American, Delta, Federal Express, Northwest, Pan Am, Piedmont, TWA, United, US Air, Alaska, PSA, and Southwest. Our research indicates that a pilot with military experience need not consider any other air carriers in what might be called fringe companies. All of the above are healthy or will soon merge into a healthy company. A separating pilot can pick and choose from the above list and be nearly assured of being hired by his first choice. Notably absent is the Texas Air Empire which includes Continental and Eastern. The majority of separating Air Force pilots would not have these airlines as a leading choice at this time). Comparisons will be made in several areas. The first will be an industry overview describing the current and forecast trends in the two sectors. In addition, we will compare job alternatives in the area of pay and benefits. Here we can compare all characteristics in dollar terms. The third area of comparison, job characteristics, is necessarily subjective, since it is difficult to place dollar values on these factors.

In comparing the two different job alternatives over a range of characteristics, we have developed a matrix. This matrix contains comparisons of any one characteristic across both job alternatives. The matrix itself contains an overview. Supplementary text follows the matrix further explaining each characteristic. There are no clear cut conclusions or results from this effort as much of the valuation of the factors must be subjectively done by each individual. However, it presents the opportunity to consider all of the benefits or costs of a particular career decision.

DIMENSIONS OF JOB SATISFACTION	AIR FORCE	MAJOR AIRLINES
TRANSITION FACTORS		
PROBABILITY/EXPENSE OF INITIAL HIRE	N/A	Probability greater then 95% with a major carrier Expense: $3,000 to $9,000
PROBABILITY OF FURLOUGH/AVERAGE LENGTH	Prob Major = .9 Pilot rate exceeds Air Force Wide Rate Prob Lt Col = .75	Prob is slightly higher then 10% Avg length is 1 year Prob goes to almost zero with 500 pilots below you
COMPENSATION AND BENEFITS		
PAY	CURRENT: $40,000 Includes: Base Pay (Jan 87) 2 Years: $41,748 Housing Allowance 5 Years: $46,098 (Maj) Subsistence Allowance 10 Years: $58,988 (Lt Col) SEE FIGURE 3 Flight Pay	CURRENT: $18,000-$24,000 2 Years: $25,000-$40,000 5 Years: $40,000-$80,000 10 Years: $52,000-$110,000 Source: FAPA Salary Survey
TAX BENEFITS	CURRENT: $1,180 2 Years: $1,698 5 Years: $2,790 10 Years: $3,259 NOTE: 1987 TAX LAW	Have to subtract State Sales Tax from total; have to adjust difference between military and airline pay by marginal tax rate.
VHA	VHA/(1 - MTR) = Additional Take Home Pay	N/A
RETIREMENT	At eight years of service, the opportunity cost is over $400,000 in lost retirement income.	Most company plans are as good or better than the military. They pay 50-60% of the average of the last three years income.
INCOME/SAVINGS GAP	N/A	It may take 5-7 years to break even. Lack of income may require working spouse or secon job. Reserve flying can make up lost income. Some individuals may not be able to get through this period of lower income without substantial savings.
MEDICAL CARE	Complete coverage for military member an. family	Most company plans as good as military. More choice in type of care. May be dollar limits on total coverage or minor charges for visit.
DENTAL CARE	Full care for military member and limited care for dependents.	Generally much better and more convenient (availability of choice) than military benefi
INSURANCE	Low cost programs available Payment in Kind programs - Dependents Indemnity Compensation	You may desire disability insurance or a second job. Many companies pay 50% disability retirement after 5 years.
VACATION TIME	30 calendar days/year	Sliding scale by years of service - Initially 14-16 days more than 20 years 30-45 days 5-10 years 14-26 days 11-19 years 23-34 days
EDUCATION BENEFITS	Tuition assistance of 75% AFIT opportunities	N/A
COMMISSARY BENEFITS	20% estimated savings	N/A

DIMENSIONS OF JOB SATISFACTION	AIR FORCE	MAJOR AIRLINES
JOB CHARACTERISTICS		
TYPICAL DUTY DAY	16 hours - crew day 24 hours - augmented crew office day varies	8 "hard hours" for up to 16 hours of contact time
NIGHTS AWAY FROM HOME	Strategic Air: 13 days/month Tactical Air: 10 days/month	Range: 0-12 nights Average: 8 nights
DUTY DAYS PER MONTH	Varies with individual Compare to early retirement	Range: 10-18 days Average: 14-15 days
JOB FLEXIBILITY	Variety of jobs, both in and out of the cockpit: Less Flexibility or control of career	Depends on seniority, can maximize Pay, Free Days, Good crew rests, etc., can transition into Training or Management
MEAN TIME/EXPENSE OF MOVES	Aircraft / Avg months on station / out-of-pocket expenses for most moves C-130 — 89.8 C-141 — 87.1 C-5 — 50.1	Average one or two moves in a career; airlines pay full cost of required moves; don't have to move, many commute
DEPENDENT TRAVEL	with member only; only overseas; limited availability	Almost unlimited travel; limited number of free flights; unlimited number of 90 to 25% off fares
CAREER IRRITANTS	One person's irritant is another's benefit. Only a limited list	See Air Force
PHD/MASTER'S DEGREE	square filler vs free education for better post retirement job opportunities	Not required, nor is any compensation given; pilots do have enought free time to go to school if they desire
INSPECTIONS	no win situation; increased workload/lack of appreciation	Capt: 2 checkrides per year; F/O & S/O: 1 checkride per year
COMMUTING TIME	not a factor	50% commute; Cost: 0-$600 per month 0-4 days lost per month
ADDITIONAL DUTIES	some are interesting, most are not; extra time away from family	5% Admin/Training/Operations: receive extra pay and keep their line number
ABILITY TO PLAN AHEAD	no way to plan ahead, for either departure dates or return dates not as bad for Tactical Airlift	10 to 20 days prior to start of month; know your schedule, can trade/drop trips

THE DECISION PROCESS

A short glance at the enclosed matrix, or spread sheet, brings the realization that more information may make the decision process more difficult, not less. There are several economic or decision analysis tools that should allow a person to process the available data in a more useful manner. In the simplest case, an individual may try to compare expected general well being or level of satisfaction if you stay on active duty with your satisfaction if you leave the service. Your "well being" is determined by a number of factors (pay, domicile location, duty day, etc.) most of which will change with time and have a level of uncertainty (where will you be stationed/domiciled in ten years, will you get furloughed/passed over, etc.). Therefore, forecasted satisfaction falls in a range of values and can be represented as a distribution. This paper is an effort to quantify the distribution of satisfaction levels associated with both choices. The following diagram shows conceptually what we are trying to achieve.

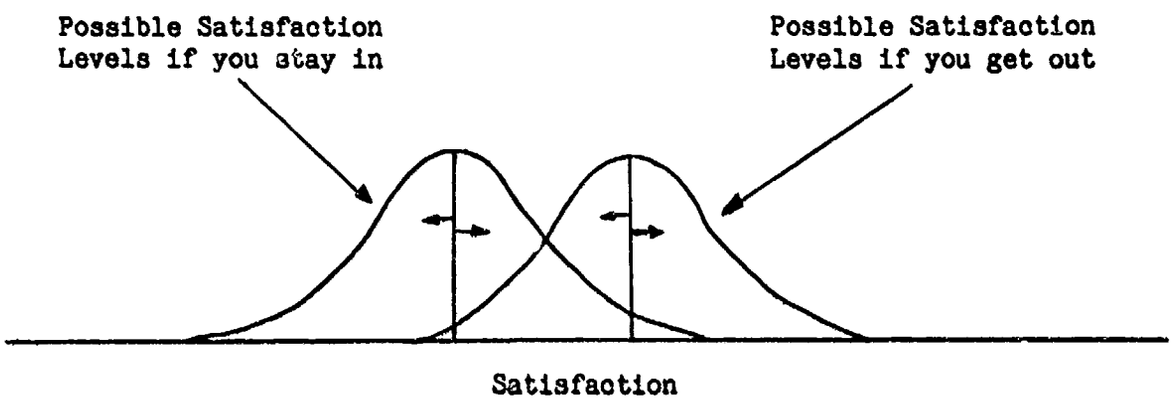


FIGURE 1

Over time, the two distributions will shift back and forth as the input values change (both in dollar value and importance, as well as the probabilities). For example, if the economy went into a recession and the probability of furlough increased, the expected satisfaction levels to be obtained by getting out would decrease (i.e., the average level would shift to the left). It is important to note that each individual puts different weights on the various job dimensions, has different job opportunities or probabilities, and different family considerations. What you as an individual need to be able to do is to put the data given in the spread sheet, plus any additional factors unique to your situation, in a format that allows you to determine which choice will give you the highest expected satisfaction. Two decision analysis tools are presented in Appendix A to aid you in making the best possible decision.

INDUSTRY OVERVIEW

The airlines are in the process of completing a major realignment. For the most part, the weaker airlines have disappeared either due to Chapter 11 proceedings or mergers. The one major exception is the Texas Air expansion which includes Continental and Eastern. The remaining airlines are extremely strong financially and are not expected to have any major problems in the near future. Since military pilots are a much sought after commodity, it is very unlikely that any separating pilot would end up working for Continental/Eastern. For this reason, we assume that separating pilots need to be concerned about economic recessions or an industry wide slow down, but not a failure of an individual carrier. Listed below are estimates for pilot demand over the next 10 years, industry wide.

TABLE 1

PILOT DEMAND

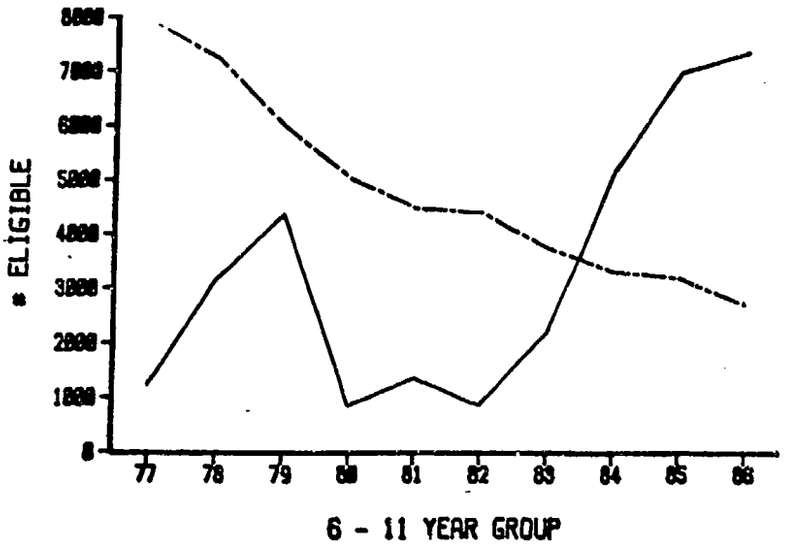
U.S. Large Turbojet Operations

YEAR	GROWTH	RETIREMENT	TOTALS
1987	1601	657	2258
1988	1520	955	2475
1989	1496	1086	2582
1990	1067	1377	2444
1991	980	1279	2259
1992	1277	1647	2924
1993	1332	1860	3192
1994	1214	2105	3319
1995	1242	2137	3379
1996	1133	2413	3546
1997	+ 987	+2425	+3412
Net Totals.....	13849.....	17941.....	31790

Future Aviation Professionals of America (FAPA), 4291-J Memorial Drive, Atlanta, GA 30032, (404) 294-0226

It should be noted that the FAPA estimates are based on FAA data and thus projections are already corrected for the fact that the airlines are now accepting delivery of 2 seat aircraft (i.e., should not be biased as "pilot" or "industry" data). Since the airlines have a strong preference for the experience level that military pilots have to offer, as long as the expected demand for pilots in a given year is greater than the number of pilots who finish their commitment (i.e., UPT output 7 years previous), the airlines could conceivably hire every military pilot who wants to get out. Since the total demand figures are higher than the number of UPT graduates in all 10 forecast years, the Air Force is facing a serious long term problem. In fact, if you assume zero growth in the airline industry (not a good assumption) for the next 10 years, retirements alone create enough demand for separating pilots to allow for an extremely low retention rate to continue. Data on general trends is displayed in Figure 2.

ELIGIBLES VS AIRLINE HIRES



—— AIRLINE HIRES	1215	3145	4342	836	1330	843	2168	5130	6972	7334
---- AF ELIGIBLE POP	7986	7248	5974	4991	4445	4370	3723	3208	3172	2689

FIGURE 2

The growing demand for airline pilots has caused several structural changes that will have a direct negative impact on Air Force retention. The first change is an effort by the airlines to expand the available pool of pilots from which to hire. The second is a psychological change in the way the airlines approach pilots currently on active duty.

The airlines are faced with a classic economic problem of increasing demand for pilots due to increased retirements and industry growth, combined with a contraction of supply (Air Force produced 4,000 pilots per year in the early 70's vs 1,600 per year now). The airline response has been to change their hiring requirements. For example, in the past the airlines would not hire anyone over the age of 32 or 33 and preferred those who were even younger. They also required 20/20 vision, a large number of flight hours, etc. At present, many of these requirements have been dropped. The major airlines now hire pilots in their fifties as well as those with vision corrected to 20/20.

The impact on the Air Force is twofold. The first is to increase the length of time the Air Force is vunerable to a member separating. In the past, once a pilot reached the 10 to 12 year point, he was considered "captured" for at least 20 years. Part of this was the draw of retirement, but a portion was also due to the age at which this occurs; 32-34. Since the "window of opportunity" was closed by the 10 to 12 year point, pilots had nowhere else to go. This is no longer the case. When you combine this with the fact that any year, up to and including the 20 year point, the financial compensation (lifetime earnings) is better on the outside, it is easy to see that the "capture zone" concept may no longer apply to the pilot force.

The fact that the airlines have also dropped the requirement for 20/20 uncorrected vision has also increased the number of Air Force members who are now eligible for a career in the civilian sector. In the past, a pilot with corrected vision compared his Air Force career with a non flying job, where the military compares quite favorably. Since he is now competitive for an airline career, with vastly improved compensation, the Air Force can expect to lose a portion of their pilots which would have stayed in the past.

TRANSITION FACTORS

In this section, we will present information on factors that are mainly a concern during a possible transition from the Air Force to civilian sector pilot careers. Since these factors deal mainly with the civilian job market, the inputs or analysis for the Air Force choice will be brief. The probability figures and information on industry changes will have a tendency to vary widely with time, and will be somewhat subjective in nature.

1. PROBABILITY/EXPENSE OF INITIAL HIRE

A. Air Force

Since you are already on active duty, this probability is one of the few you can state with certainty.

$$P_{hire} = 100\%$$

B. Airline Jobs

Before a pilot makes the decision to put in his papers, he should make a trip to a civilian doctor to get a complete Catagory I medical. This lowers the chance of an unpleasant surprise when the airline doctor conducts the official medical. In addition, most pilots who are serious about getting hired complete both an Airline Transport Pilot (ATP) and a Flight Engineer (FE) written. Assuming that the pilot can pass the medical, and has the ATP and FE written, the probability of initial hire with a major carrier is in excess of 95% (some industry experts would say greater than 99%). In the past, most pilots sent a resume to every carrier and then accepted employment with the first airline to offer a job. Given the current environment, this has changed slightly. Pilots feel that they can be hired by their first or second choice, and are more selective when sending resumes and also in what order they are mailed out. The most recent experience is that most pilots can actually be hired/assigned a start date prior to leaving active duty. On the outside, the average pilot should not have to wait more than 2 or 3 months between their last Air Force paycheck and the start of the airline income. Listed below are typical costs involved in the hiring process.

(1)	ATP:	Course/Flight time	$800
		Lodging/Meals	$100-$150
		Airline Tickets (if needed)	$100-$300

NOTE: Many pilots with military experience elect to skip this step

(2) FE Written: $250 and one lost weekend

(3) Interviews:
- o Most airlines pay transportation costs only for the second and subsequent interviews
- o Assume interviews with 2 to 4 different carriers
  - Tickets - $100 to $300 each interview
  - Lodging/Meals - $50 to $100 each interview

TOTAL $300 to $1,600

(4) Suits/clothes for interview - $250-$500

(5) FAPA membership/resumes - $300

(6) 2 or 3 months lost pay - $6,000-$9,000

The total out-of-pocket expense can vary widely depending on location of the ATP course, number of interviews, and whether or not you get hired prior to separation or wait several months after leaving the service. The typical range would vary between $3,000 and $9,000.

2. PROBABILITY OF FURLOUGH/AVERAGE LENGTH

A. Air Force

You can not be furloughed, per se, but you do have some positive probability of not making Major and being asked to leave the service. In the past, it was possible to be passed over for Major, but still be allowed to continue as a Captain until you reached retirement age. Due to budget constraints and Federal legislation mandating reductions in officer strengths, this will probably not be the case in the future. With that in mind, just what are your chances of making it to Major? The Air Force has an overall promotion opportunity of 90% to Major. This means that 90% of your year group (regardless of size) will be promoted during the full promotion cycle; below-the-zone, primary zone, and above-the-zone. In the primary zone, the Air Force has promoted 79% of those officers eligible over the last three years. On the other hand, pilots do much better than the average officer as AF-wide pilot promotion rates were 88% in the primary zone (84% for MAC pilots). You should be able to use these aggregate numbers to get a pretty good feel for your individual promotion probability (corrected for PME, higher education, level of indorsements, etc.).

NOTE: The numbers for Lt Col also favor pilots. The promotion opportunity for Lt Col is 75%. The primary zone promotion rate is 60% Air Force wide vs. 62% for Air Force pilots (57% for MAC pilots).

B. Airline Jobs

The probability of being furloughed varies between airlines and between individuals depending on the relative position of your line number and the line number of the last pilot hired. It is also directly related to the health of the economy. The probability of being furloughed over the first 12 years with an airline is slightly better than 10%, with the average length of furlough being 1 year. As an industry-wide average, once 25% of the current

pilot force have line numbers below you, the probability of furlough drops to almost zero. There are two major reasons for furlough. The first is that your particular company has financial problems. For the most part, the weaker companies have already been driven out of the market, either from bankruptcy or by merger. For this reason, industry experts feel that furloughs as a result of weak finances are very unlikely. The second major cause of furloughs is due to economic recession. Since we have not had a recession since the early eighties it is quite reasonable to assume that an economic downturn will occur within the next 5 to 10 years. The other negative factor for pilots considering the civilian sector is that they will be hired just after four years of extensive airline hires (approximately 23,500 pilots since 1983). Since industry experts expect the hiring levels to stabilize at approximately 2,000 to 3,000 hires per year, it will take much longer to reach the safety zone than before. In terms of timing, it is much better to be hired just prior to a large hiring surge than after.

COMPENSATION AND BENEFITS

In this section, we will present information on pay and benefits for the two jobs. In some cases we will be able to present exact dollar figures, such as military pay in the future. Others will require the use of ranges of compensation, such as the pay with major airlines which will not take a specific value, but will lie within a given range. For other characteristics we will take the Air Force as a base case and show the additional cost or benefit of alternative choices. As an example, you receive free medical care. To receive the same level of services in the private sector, you might have to pay for that benefit. We will also assume that you are a Captain who has just completed eight years of service.

1. PAY

A. Air Force

You are probably well aware of the pay that you receive from the Air Force in base salary, subsistence allowance, housing allowance and flight pay. We have shown your annual compensation in dollar terms for the current time (Captain over 8) and for two, five and ten years in the future. These are absolute numbers and do not take into account tax benefits or other payment-in-kind benefits. Source: Military Pay Tables.

You could calculate your expected lifetime earnings for different scenarios. We have done this in Figure 3, comparing Air Force pay with that in the private sector. A more important comparison between the two jobs would compare the expected lifetime earnings over your full life expectancy. This would be to approximately age 80. A presentation of different scenarios is presented in Table 2. (A thorough explanation of Table 2 follows in paragraph 1.C.) One can compare the expected lifetime earnings of different military career alternatives with private sector earnings. We have presented a high and middle earnings path in the private sector corresponding to Federal Express and United, respectively. There are really only a couple of "high" paying airlines with most being comparable to United in the middle. There are also firms that pay low wages, such as Continental and Braniff.

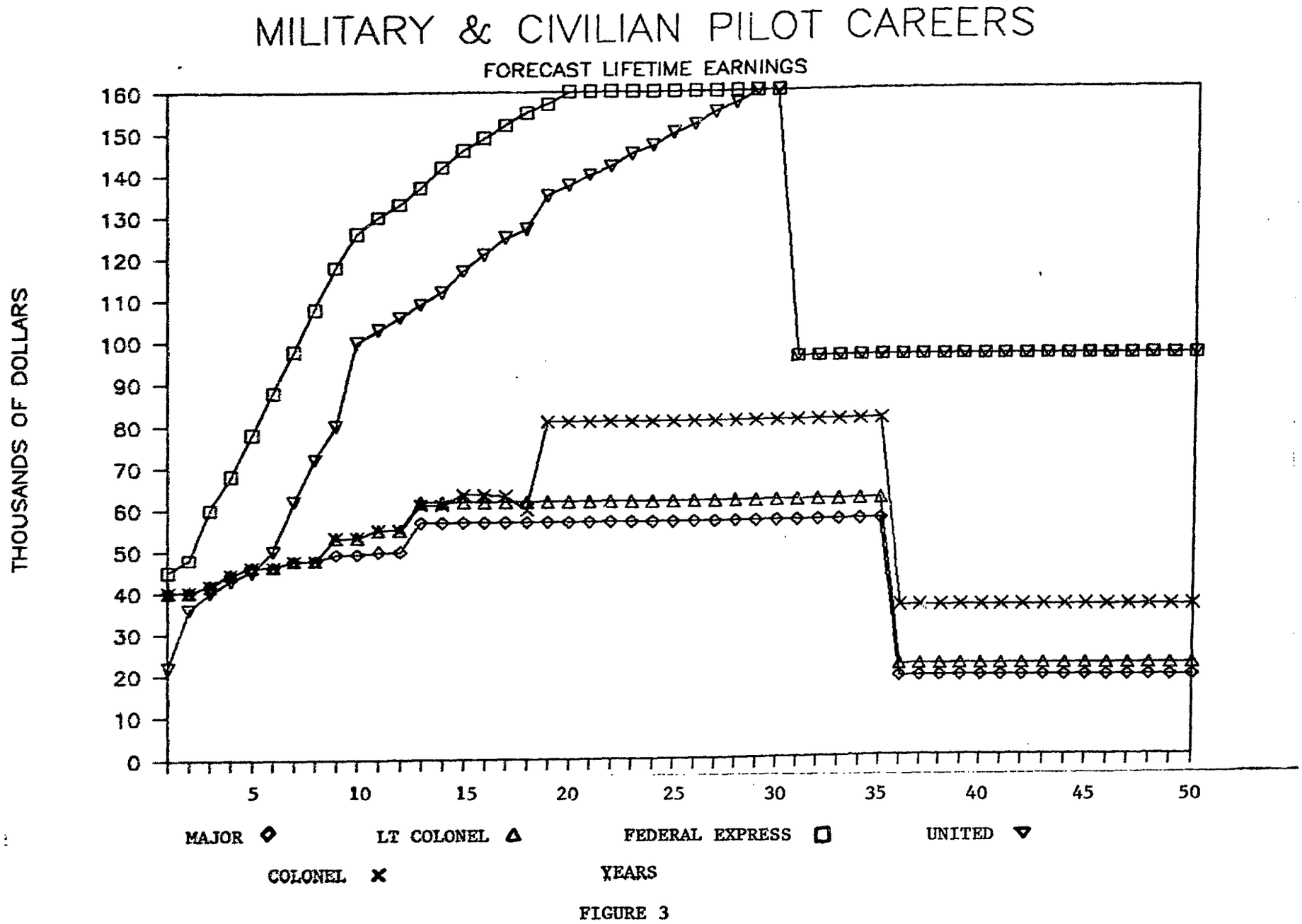

MILITARY & CIVILIAN PILOT CAREERS
FORECAST LIFETIME EARNINGS
THOUSANDS OF DOLLARS
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
5
10
15
20
25
30
35
40
45
50
MAJOR
LT COLONEL
FEDERAL EXPRESS
UNITED
COLONEL
YEARS

FIGURE 3

TABLE 2

AGE	YEAR OF SERVICE	AIR FORCE PAY-MAJ	AIR FORCE PAY-LTC	AIR FORCE PAY-COL	UNITED 30	FED EX 30
31	9	40.2	40.2	40.2	22.0	45.0
32	10	40.2	40.2	40.2	36.0	48.0
33	11	41.7	41.7	41.7	40.0	60.0
34	12	44.3	44.3	44.3	43.0	68.0
35	13	46.1	46.1	46.1	45.0	78.0
36	14	46.1	46.1	46.1	50.0	88.0
37	15	47.6	47.6	47.6	62.0	98.0
38	16	47.6	47.6	47.6	72.0	108.0
39	17	49.2	53.1	53.1	80.0	118.0
40	18	49.2	53.1	53.1	100.0	126.0
41	19	49.8	55.0	55.0	103.0	130.0
42	20	49.8	55.0	55.0	106.0	133.0
43	21	56.8	61.7	61.0	109.0	137.0
44	22	56.8	61.7	61.0	112.0	142.0
45	23	56.8	61.7	63.5	117.0	146.0
46	24	56.8	61.7	63.5	121.0	149.0
47	25	56.8	61.7	63.1	125.0	152.0
48	26	56.8	61.7	59.8	127.0	155.0
49		56.8	61.7	80.8	135.0	157.0
50		56.8	61.7	80.8	137.5	160.0
51		56.8	61.7	80.8	140.0	160.0
52		56.8	61.7	80.8	142.0	160.0
53		56.8	61.7	80.8	145.0	160.0
54		56.8	61.7	80.8	147.0	160.0
55		56.8	61.7	80.8	150.0	160.0
56		56.8	61.7	80.8	152.0	160.0
57		56.8	61.7	80.8	155.0	160.0
58		56.8	61.7	80.8	157.0	160.0
59		56.8	61.7	80.8	160.0	160.0
60		56.8	61.7	80.8	160.0	160.0
61		56.8	61.7	80.8	96.0	96.0
62		56.8	61.7	80.8	96.0	96.0
63		56.8	61.7	80.8	96.0	96.0
64		56.8	61.7	80.8	96.0	96.0
65		56.8	61.7	80.8	96.0	96.0
66		18.8	21.7	35.8	96.0	96.0
67		18.8	21.7	35.8	96.0	96.0
68		18.8	21.7	35.8	96.0	96.0
69		18.8	21.7	35.8	96.0	96.0
70		18.8	21.7	35.8	96.0	96.0
71		18.8	21.7	35.8	96.0	96.0
72		18.8	21.7	35.8	96.0	96.0
73		18.8	21.7	35.8	96.0	96.0
74		18.8	21.7	35.8	96.0	96.0
75		18.8	21.7	35.8	96.0	96.0
76		18.8	21.7	35.8	96.0	96.0
77		18.8	21.7	35.8	96.0	96.0
78		18.8	21.7	35.8	96.0	96.0
79		18.8	21.7	35.8	96.0	96.0
80		18.8	21.7	35.8	96.0	96.0
	PDV 8	1189.2	1271.3	1479.9	2502.5	2960.5

Remember, one needn't choose to go with Continental, a major carrier, which is on the absolute bottom in terms of pay. If Continental becomes a healthy firm, one can expect to see their wages increase as other firms may begin to hire their pilots away.

B. Airline Jobs

It is very difficult to actually calculate what an individual might earn with an airline career. There are too many variables to take into account. The most important factor is how rapidly one rises to captain. This currently ranges from two to twenty years. Your own rate of advancement does not depend upon the current company average but upon how many openings occur above you on the seniority list due to retirements or company growth (more cockpits). Different airlines have slightly different negotiated contracts as well as such factors as longevity, overseas flying, type of equipment, etc. Thus, the wages shown in the matrix are industry averages or ranges based upon current estimates of career progression and current contracts. We have shown the anticipated earnings of a pilot with United Airlines based upon the most current contract and anticipated advancement information.

C. Description of Tables 2-5

Table 2 provides a quantitative comparison between the military and civilian pilot careers. In order to provide such a comparison, certain assumptions had to be made: (1) The individual has completed 8 years of service, leaving 12 until retirement. (2) The individual will live to age 80. (3) The real discount rate is 3%. (4) Incomes increase at the rate of inflation. (5) A retired Major earns $38 thousand in a new job, a retired Lieutenant Colonel earns $40 thousand and a retired Colonel receives $45 thousand (retires at 26 years of service). (6) The United and Federal Express income streams are based upon FAPA forecasts. (7) Retirement at 50% of Base Pay for civilian airlines.

The first column shows the individual's age (8 years of service, age 31). The second shows years of military service. Columns three through five show income streams from year 9 through age 80 for retirement at Major, Lt Colonel and Colonel respectively. Columns six and seven show income streams for United Airlines and Federal Express. At the bottom of each column is a total figure, discounted by 3% per year, (PDV 8) which shows the expected lifetime earnings with each choice. For an 8 year Captain, the evidence overwhelmingly suggests that he should separate, based solely on income.

The next logical question is, what is the cost of staying on active duty for another year or a number of years. We can compare the choice of remaining in the service under the above assumptions with the various alternatives of remaining a total of 10, 12, 14, 16, 18 and even 20 years (with military retirement) and flying with the airlines (United will be used as the example). These income streams are shown in Table 3. The summary data (PDV 10-20) for these calculations is shown below in Table 4. The table values can be used to give a discounted dollar value of staying on active duty for an additional number of years. If a pilot decides to stay on active duty from year 8 to year 10 (i.e., accepts a PCS, formal school, etc.) the cost is $170,100 (2502500 - 2332400) of future lifetime earnings.

TABLE 3

AGE	UNITED 28	UNITED 26	UNITED 24	UNITED 22	UNITED 20	UNITED 18 USAF RET
31	40.2	40.2	40.2	40.2	40.2	40.2
32	40.2	40.2	40.2	40.2	40.2	40.2
33	22.0	41.7	41.7	41.7	41.7	41.7
34	36.0	44.3	44.3	44.3	44.3	44.3
35	40.0	22.0	46.1	46.1	46.1	46.1
36	43.0	36.0	46.1	46.1	46.1	46.1
37	45.0	40.0	22.0	47.6	47.6	47.6
38	50.0	43.0	36.0	47.6	47.6	47.6
39	62.0	45.0	40.0	22.0	53.1	53.1
40	72.0	50.0	43.0	36.0	53.1	53.1
41	80.0	62.0	45.0	40.0	22.0	55.0
42	100.0	72.0	50.0	43.0	36.0	55.0
43	103.0	80.0	62.0	45.0	40.0	43.7
44	106.0	100.0	72.0	50.0	43.0	57.7
45	109.0	103.0	80.0	62.0	45.0	61.7
46	112.0	106.0	100.0	72.0	50.0	64.7
47	117.0	109.0	103.0	80.0	62.0	66.7
48	121.0	112.0	106.0	100.0	72.0	71.7
49	125.0	117.0	109.0	103.0	80.0	83.7
50	127.0	121.0	112.0	106.0	100.0	93.7
51	135.0	125.0	117.0	109.0	103.0	101.7
52	137.5	127.0	121.0	112.0	106.0	121.7
53	140.0	135.0	125.0	117.0	109.0	124.7
54	142.0	137.5	127.0	121.0	112.0	127.7
55	145.0	140.0	135.0	125.0	117.0	130.7
56	147.0	142.0	137.5	127.0	121.0	133.7
57	150.0	145.0	140.0	135.0	125.0	138.7
58	152.0	147.0	142.0	137.5	127.0	142.7
59	155.0	150.0	145.0	140.0	135.0	146.7
60	157.0	152.0	147.0	142.0	137.5	148.7
61	94.2	91.2	88.2	85.2	82.5	97.9
62	94.2	91.2	88.2	85.2	82.5	97.9
63	94.2	91.2	88.2	85.2	82.5	97.9
64	94.2	91.2	88.2	85.2	82.5	97.9
65	94.2	91.2	88.2	85.2	82.5	97.9
66	94.2	91.2	88.2	85.2	82.5	97.9
67	94.2	91.2	88.2	85.2	82.5	97.9
68	94.2	91.2	88.2	85.2	82.5	97.9
69	94.2	91.2	88.2	85.2	82.5	97.9
70	94.2	91.2	88.2	85.2	82.5	97.9
71	94.2	91.2	88.2	85.2	82.5	97.9
72	94.2	91.2	88.2	85.2	82.5	97.9
73	94.2	91.2	88.2	85.2	82.5	97.9
74	94.2	91.2	88.2	85.2	82.5	97.9
75	94.2	91.2	88.2	85.2	82.5	97.9
76	94.2	91.2	88.2	85.2	82.5	97.9
77	94.2	91.2	88.2	85.2	82.5	97.9
78	94.2	91.2	88.2	85.2	82.5	97.9
79	94.2	91.2	88.2	85.2	82.5	97.9
80	94.2	91.2	88.2	85.2	82.5	97.9

TABLE 4

(THOUSANDS OF DOLLARS)

	AIR FORCE	UNITED
PDV 8	1271.3	2502.5
PDV 10	1271.3	2332.4
PDV 12	1271.3	2172.3
PDV 14	1271.3	2029.5
PDV 16	1271.3	1900.2
PDV 18	1271.3	1791.3
PDV 20	1271.3	2014.5

Table 5 presents a slightly different view. Instead of beginning at year 9 for each case, Table 5 looks at the number of years of completed service and compares future incomes from the two streams. The results of this calculation show that at any point in time, a comparison between the two choices heavily favors the airline career. The gap narrows with additional years of service, but it is still well over 700 thousand dollars. (These results are the same as Table 3. A graphic depiction of this data is presented in Figure 4. The only difference is that the years of additional military service have been eliminated and discounting begins at the date of separation instead of at the beginning of year 9).

TABLE 5

	AIR FORCE	UNITED
PDV 10	1267.1	2392.9
PDV 12	1257.0	2271.1
PDV 14	1240.0	2145.3
PDV 16	1218.9	2015.5
PDV 18	1185.3	1884.2
PDV 20	1145.8	2205.5

One might ask how sensitive these numbers are to the assumptions. The answer is a very simple, "not much." With such a large disparity, the assumptions would have to change drastically to make the Air Force preferable to the civilian airline career in monetary terms. In fact, the assumption of 50% military retirement is not valid. A February 1987 editorial in the Air Force Magazine states that military retirement benefits have decreased by over 20% since 1980. Those coming on active duty since 1980 only receive the

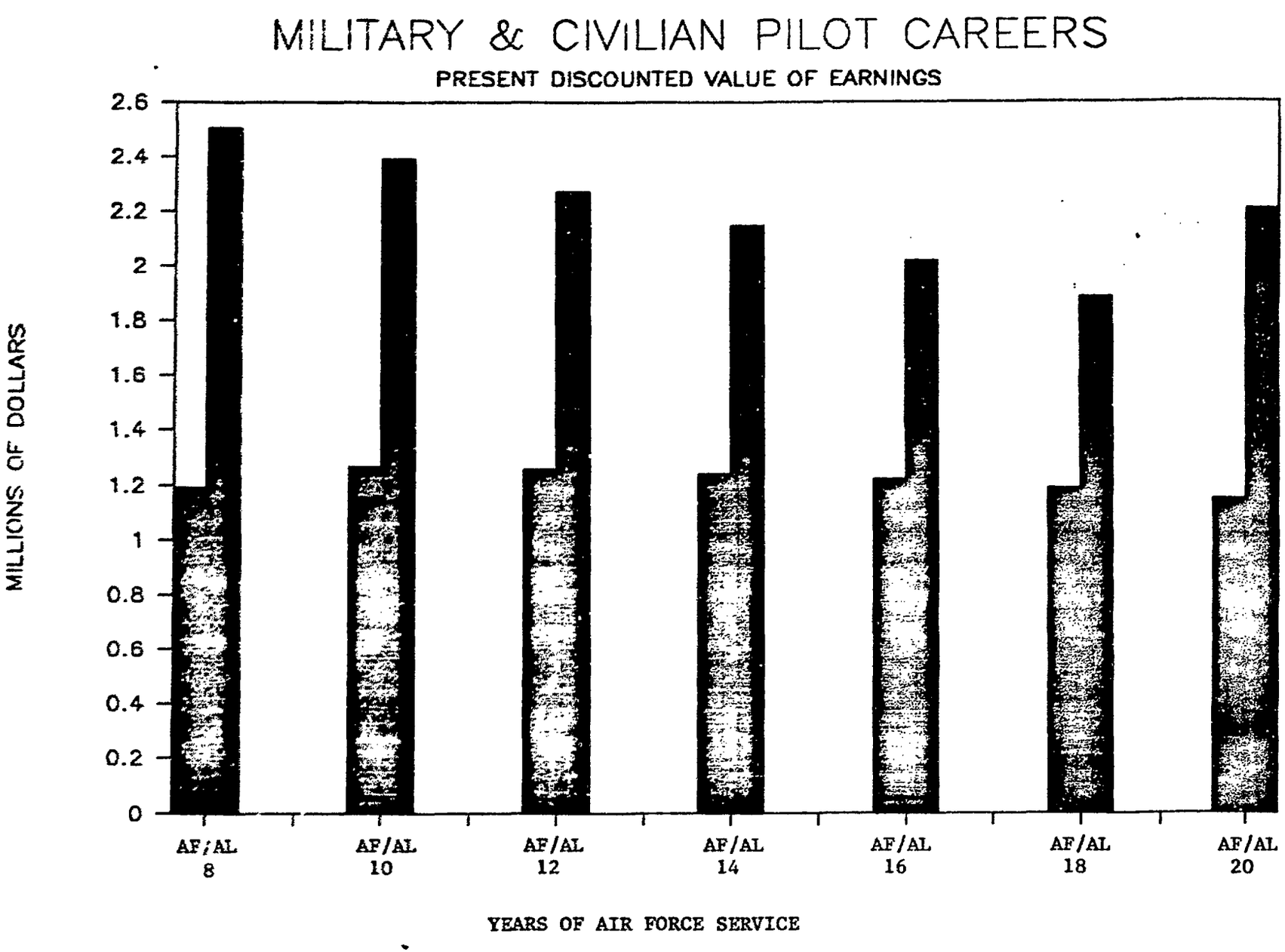

MILITARY & CIVILIAN PILOT CAREERS
PRESENT DISCOUNTED VALUE OF EARNINGS
MILLIONS OF DOLLARS
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
AF/AL 8
AF/AL 10
AF/AL 12
AF/AL 14
AF/AL 16
AF/AL 18
AF/AL 20
YEARS OF AIR FORCE SERVICE

FIGURE 4

their last three years on active duty, while more recent accessions will earn even less. We could add retirement benefits to the second career after military retirement. For example, a lump sum payment of $280,000 at age 65 would only add $100,000 to the present discounted value.

2. TAX BENEFITS AND EFFECTS

A. Air Force

Housing and subsistence allowance are not taxed as ordinary income. Thus it is as if you were paid more than you actually are. This Federal Income tax benefit effectively increases your actual pay discussed above by the amounts shown in the matrix under tax benefits. The following Table shows the tax advantage for various ranks and years of service.

TABLE 6

Years of Service	Captain	Major	Lt Colonel	Colonel
8	$1,180			
10	1,698			
11		$2,404		
12		2,790		
14		3,017		
16 & Over		3,017	$3,256	$3,489

These amounts could be added to the total of Base Pay, Housing Allowance, Subsistence Allowance, and Flight Pay shown in Figure 2 to arrive at "adjusted pay." These values are calculated for the new tax rates for 1987 and assume: Married, filing joint return, three dependents and standard deductions. Each individual's tax situation and liability may affect these values in either direction. This adjusted pay should be used when comparing your situation in the Air Force with the private sector opportunity. In addition to federal income tax savings, you may also benefit from state tax savings by being in the military. Some states exempt or have reduced tax rates for service members. Also, there is no sales tax for purchases at on-base facilities. In addition, pilots receive per diem, tax free, for time spent away from home.

B. Airline Jobs

Since you are no longer in the Air Force, all of your income, excluding per diem, is subject to Federal income taxes. Also, you will now be a resident of the state in which you reside and will be liable for any state income taxes that may apply. Alaska, Connecticut, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming have no state income tax. All others have income taxes. Thus your gross pay should be reduced by the amount of additional state income tax liability that you will incur in the private sector. This will allow a comparison between the Air Force and private sector total pay before Federal taxes.

Airline pilots also receive per diem for hours away from home. Their accommodations are paid for by the company, so their only requirements are for food. Some companies provide meals, or aircrews are able to eat meals during

flights. The average per diem earnings would be between $350 and $500 per month and this income is not taxable. This income should be added to the income in the private sector.

3. VARIABLE HOUSING ALLOWANCE

A. Air Force

For some duty locations, the Armed Forces provide additional housing allowance, which increases actual take home pay. This additional compensation is tax free. To compute the value of VHA, divide your VHA by (1 - MTR), MTR = Marginal Tax Rate. In 1987, the MTR is 15% for taxable income under $28,000 and 28% for income over that level. Add this to the total compensation above to calculate your current Air Force "net pay."

B. Airline Jobs

Having taken into account the tax advantages of being in the Air Force vs. the disadvantages of the private sector, one can now directly compare total compensation in the two sectors. The numbers given are gross or pretax figures. When comparing the two values,, you should realize that the difference between the two is not "take home." For example, if you are comparing $40,000 to $80,000, you would pay the same amount of tax on the first $40,000 received. The second $40,000 for the airline job would be taxed at your marginal rate. Under the new tax law this would be roughly 28%. So the after tax difference between the two choices is 28,800 ($40,000 x .72) not the $40,000 given in the matrix. The items that follow are a bit more subjective and will require personal appraisals of the exact value to each individual.

4. RETIREMENT

A. Air Force

The military retirement system is an extremely valuable program. Many individuals feel that the value of retirement is large and a tremendous lure to stay in for at least twenty years. In fact there are very few separations past the 10-12 year point for this very reason. How much is that retirement worth to you now if you can't collect on it for many years? At what rank will you retire? How many years of service? There are many dimensions to this problem of the value of anticipated future retirement income which make it impossible to give a single value to future retirement. If you separate from the Air Force prior to twenty years, you are giving up the opportunity of receiving retirement income. We can calculate the present discounted value of the future retirement based upon rank and years of service and average life expectancy. A summary table is shown below. All figures pertain to an eight year Captain (twelve years from retirement). A discount rate of 2% was used for the calculations, instead of the 3% used for the lifetime earnings figure for the following reason. The historical real rate of growth on <u>risk free</u> assets, (guaranteeing preservation of principal and purchasing power) has been near 2%. Source: Real rates of return on U.S. Government Treasury Bills.

The following table shows the present discounted value to you of retiring at twenty years as a Major or Lt Col. The first line shows how much you would

need to put in the bank now, earn 2% real growth (i.e., above and beyond the inflation rate) over your entire lifetime, and receive the equal of your monthly retirement pay for the rest of your life out of interest from your principal (a perpetuity). The second line shows the amount needed to pay you for 38 years, or your average life expectancy.

TABLE 7

RANK

	Major	Lt Colonel
PERPETUITY	771,800	892,000
ANNUITY (38 Year Life Expectancy)	410,500	474,500

This table shows the "opportunity cost" of separating at 8 years of service. For example if you had $410,000 now and invested that at 2% real growth, then at twelve years from now, you would have a large enough principal to pay an annuity of $1,566 per month, for your life expectancy. This is the same as the monthly retirement pay of a Major at 20 years of service.

These values are minimum values. As the individual has more years of service, i.e., closer to retirement, the opportunity costs or the amount that would need to be set aside would be larger. Also, as rank and years of service increase past 20 years of service, the monthly retirement pay would be higher, thus requiring a larger value of the principal for the lifetime annuity.

B. Airline Jobs

The above discussion indicates that there are very high opportunity costs in leaving the Air Force. However, these opportunity costs can be offset by income or pension plan contributions in the private sector. As an example, if income in the private sector is greater than that in the Air Force, this difference would begin to offset this opportunity cost. The only way to make a useful comparison between the two jobs is to compare future lifetime earnings as was done in Table 2.

The retirement program in the Air Force is tremendous. However, the programs with the airlines are far superior. Most pay a variable rate between 50 and 60% of pay in the final year of service, beginning at age 60. This retirement can range from 50-90 thousand dollars per year. One may wonder about the security of these funds due to turmoil in the industry. Some pensions are funded out of current accounts while others are separate. Firms that have gone bankrupt with the first type of program have left their employees with very little, while firms with separate accounts have left their former employees in a very good financial position. The general industry trend is for these pension funds to be overfunded. As an example, the mergers of Southern, North Central and Hughes Air West to form Republic dissolved the three earlier companies. Pilots with Southern were only covered by the new

Republic plan and thus had nothing to show for their earlier service. Hughes Air West had a separate pension plan that they had been contributing to over the years. This fund actually had excess funds. These funds were used to purchase an annuity with an insurance firm which has certain guarantees. One pilot had flown with Hughes for only nine years and is now guaranteed $57,000 per year, beginning at age 60.

SUMMARY OF COMPENSATION

It is extremely difficult to make the comparison of compensation in the two sectors. The only appropriate comparison to make is over an individual's entire future lifetime. Compensation is known within the military while on active duty, but post-retirement income is uncertain as is any potential retirement in the private sector. Compensation in the private airline sector may vary due to many factors, such as age at start, airline, rate of progression, etc. In addition, the industry contributes an additional 20% of income towards benefits such as retirement plans, medical and dental coverage and insurance. Several different comparisons are available in Tables 2-5. If one only looks at compensation, or expected lifetime earnings, a pilot is better off to separate anytime and fly with the airlines when compared with a military career followed by average non-flying employment in the private sector.

5. INCOME GAP

A. Air Force

Not a factor for an Air Force career.

B. Airline Jobs

The concept of lifetime income streams and present value calculations are valid and useful approaches, but it is still important to examine how the money is distributed. By the time most Air Force officers have completed their initial commitment, they have developed a particular lifestyle. For many this includes a spouse, children, home mortgage, and car payments. As a side note, Americans are now having children later in life than they did in the past. On average, a person considering separating today has fewer children/less expenses to consider than in the past. Although it is true that the airline pilot receives a significantly greater income stream over his lifetime, much of that money is received later in life. In fact, the prospective airline pilot needs to accept a lower level of lifestyle, or have savings to fall back on during the transition period. In the recent past, the only year in which pay was lower on the outside was the initial year of probation. With the advent of the B pay scale system, it now takes approximately 5 years to reach the point where airline pay is equal to the military level and even longer to make up for the lost income. Shown below in Figure 5 is a graphic representation of this "income gap" for a pilot that separates in his 8th year. The airline data is for United Airlines and was selected as an average payscale. The shaded area is the amount of savings required to make up the difference in income and maintain the current standard of living. For the data given this would amount to $26,500.

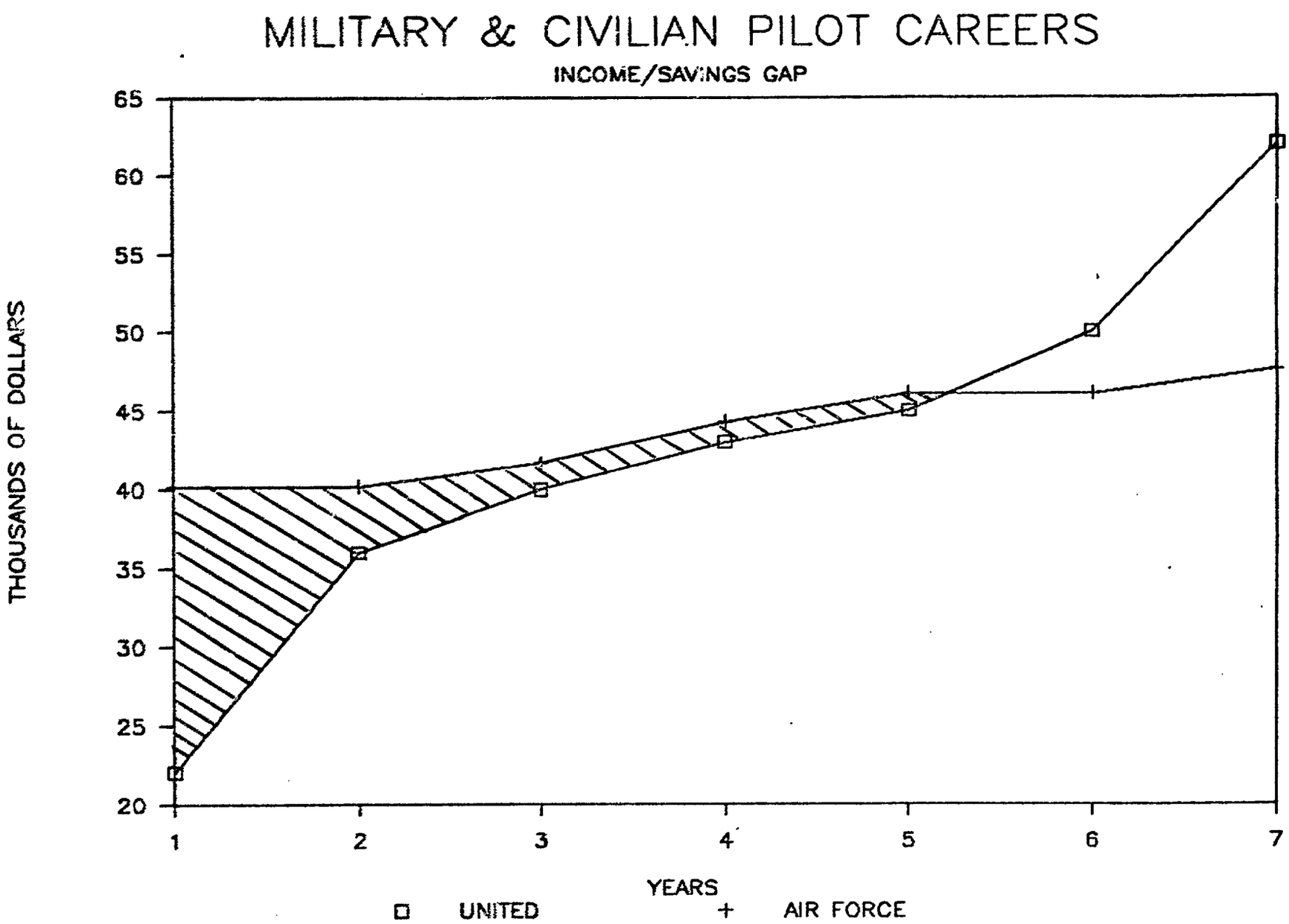

MILITARY & CIVILIAN PILOT CAREERS
INCOME/SAVINGS GAP
THOUSANDS OF DOLLARS
65
60
55
50
45
40
35
30
25
20
1
2
3
4
5
6
7
YEARS
UNITED
AIR FORCE

FIGURE 5

To be realistic, you would also have to add in the cost of the hiring process discussed in the section entitled "Probability/Expense of Initial Hire." An estimate in the middle of the given range would be $6,000, for a total saving requirement of $32,500.

Two additional factors need to be included. On the positive side, if it is possible for the individual pilot to join a reserve unit, the pay difference becomes much smaller. An eight year Captain can receive $116 per day on reserve status, while a 12 year Major can receive $132 per day. Assuming that it were possible to work 6 days a month with the Reserve, the airline pay figure would need to be increased by approximately $8,000-$9,000 per year. See Figure 6. The down side of this extra pay is loss of free time and the additional headaches involved in meeting the reserve unit's training/work requirements. As a side note, it would also be possible to add military retirement to your lifetime income stream, but not starting at the end of 20 years.

On the negative side, you should also plan for the possiblity of a furlough in the early years of your airline career. There are two extremes in planning for this possible loss of income. One would be to make no allowances (i.e., use the reserves as a back-up or plan to get a short term job). The second would be to have one year's worth of income saved and put aside. Neither approach is realistic. Few people have the level of savings required to cover an entire year or could find a well-paying job overnight. A better approach would be to have a small nest egg set aside as insurance. From an expected value standpoint, if you have a 10% chance of being furloughed and it lasts, on average, one year, you should plan to cover 10% of one year's earnings. Since you are trying to maintain a $40,000 per year lifestyle, this would require an additional $4,000 added to your savings. This could give you time to look for a second job, etc., and still make the mortgage payment/put food on the table. If you have the luxury of a working spouse, this may not be a factor. In summary, to make the transition a painless process, by eliminating some of the uncertainty and loss of current income, a savings of $36,500 could be required ($26,000 due to initial smaller pay check, $6,000 for expense of the hiring process, and $4,000 in case of furlough). This is only an average, some pilots get by with less than $10,000 and some wish they had a lot more. It all depends on family size/lifestyle and the level of risk the individual pilot is willing to accept.

6. MEDICAL CARE AND BENEFITS

A. Air Force

The Air Force provides "free" medical care for you and your family. This is known as a payment-in-kind form of compensation. You don't actually purchase the item, nor are you given additional financial compensation and then given the opportunity to choose how much health care to purchase. Thus the value to you is equal to how much you actually consume of the service. You might think of medical benefits as insurance. You are effectively buying (actually forced to buy whether you want to or not) an insurance policy to cover your family's potential needs. It would cost approximately $1,440 annually to provide this comprehensive health care if purchased in the private sector. Thus the Air Force will be considered a base case. Subtract the amount that you would need to pay in a private sector job for this medical coverage from the after tax salary in the private sector.

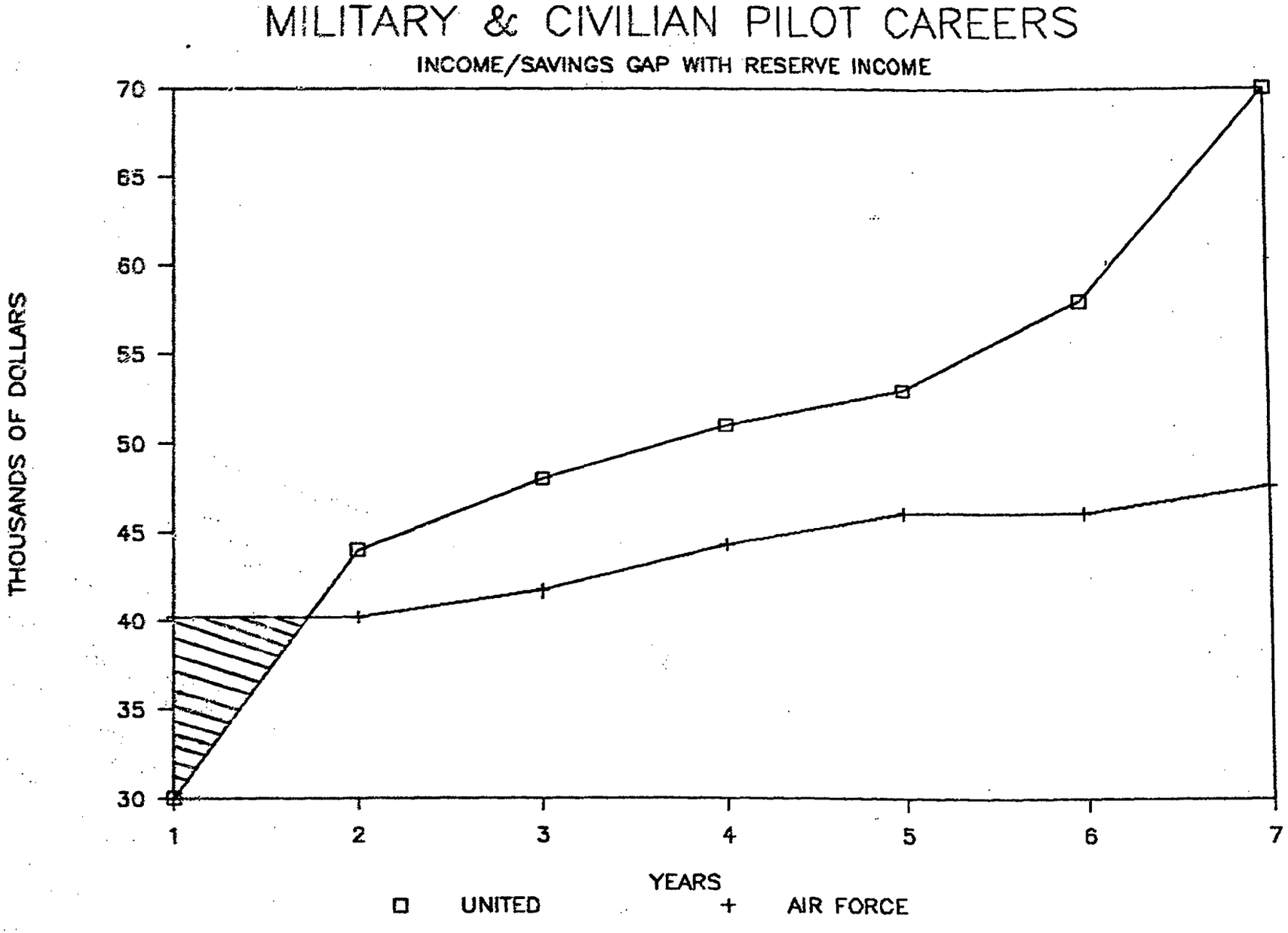

MILITARY & CIVILIAN PILOT CAREERS
INCOME/SAVINGS GAP WITH RESERVE INCOME
THOUSANDS OF DOLLARS
70
65
60
55
50
45
40
35
30
1
2
3
4
5
6
7
YEARS
UNITED
AIR FORCE

FIGURE 6

B. Airline Jobs

Medical benefits provided by the major airlines are very comparable to those provided for military members. In many cases, employees have several choices available, such as whether to participate in an HMO or to have a family doctor. In some cases the individual may have to pay a small fee (under $5) per visit. There may also be limits on the total coverage available. In general the minor expenses are made up for by the available choice and convenience of private health care when compared to the military system.

7. DENTAL CARE

A. Air Force

Full Dental care is provided for active duty members and limited care for dependents. This care is often very inconvenient for dependents, although at no charge.

B. Airline Jobs

As major corporations, the airlines also provide significant dental benefits. Again, the choice and convenience should be emphazied. There are too many programs to compare, but the airlines beat the Air Force by a wide margin.

8. INSURANCE

A. Air Force

As a member of the Air Force, your survivors would receive Dependents and Indemnity Compensation (DIC). Also, you may purchase Serviceman's Group Life Insurance at a very low cost. To provide this same coverage in the private sector would cost approximately an additional 1.7% of your base salary, as shown in line seven of the matrix.

B. Airline Jobs

Many pilots in the private sector feel that it is necessary to purchase insurance against any disability that might end their flying careers. This is an additional cost that you might include as a deduction from private sector income. This coverage would be necesary for the first five years. Prices for this insurance can be seen in Appendix B. Lump sum coverage of $125,000 would cost $60 per month for someone 35-39 years of age. In the Air Force, if you are removed from flying status, you would lose $4,800 per year in flight pay, but you would still have your job and benefits. Many pilots in the private sector also "insure" themselves by taking on part time jobs with the Air Force Reserves or other employment. Others attempt to begin businesses in their spare time as a hedge against being unable to fly. Individuals disabled (no more flying) after five years will receive 50% of their previous year's earnings for life.

9. VACATION TIME

A. Air Force

You are authorized 30 days of leave per year, at full pay and allowances. This benefit starts at the first year and stays constant. As an Air Force member, you are on duty 24 hours per day and seven days per week. Consequently, mission needs may preclude taking leave at the most advantageous time. Also, this leave is calendar days and not work days.

B. Airline Jobs

Vacation time will vary with the number of years of service and the airline. Ranges are given below.

0 - 5 years	14 - 16 days
5 - 10 years	14 - 26 days
11 - 19 years	23 - 34 days
20 years and up	30 - 45 days

One must remember that the average airline pilot only works about 15 days per month. Vacation time is in addition to these days off. With creative scheduling of vacation days, an airline pilot can easily double the actual number of vacation days.

10. EDUCATIONAL BENEFITS

A. Air Force

There are several educational benefit programs for which you may be eligible while on active duty. These programs would also have a monetary value to you. (1) "Old" GI Bill (Pre July 1975): These benefits are available until the end of 1989 and pay up to $10,000. (2) VEAP: If an individual contributes $100 per month for twelve months of active duty, they are eligible for $10,800 in benefits, $300 per month for 36 months. (3) Tuition assistance: The Air Force will pay 75% of the tuition for courses that you take. The individual incurs a two year commitment.

B. Airline Jobs

There is no need to further your education for promotion purposes as there is in the Air Force. If an individual is interested in further education, the scheduling process with the airlines will allow him to do that, but will not provide any monetary assistance.

11. COMMISSARY

A. Air Force

<u>Monetary</u> savings occur while shopping at the commissary. Studies show that savings are approximately 20%. Certain non-monetary aspects of commissary shopping may be negative factors, such as long lines or lack of choice. In addition, the advent of "discount" supermarkets have changed the level of savings as perceived by many Air Force members.

B. Airline Jobs

None.

JOB CHARACTERISTICS

In this section, we will present information on the non-pecuniary aspects of the various job categories. We will be able to present some command-wide or industry-wide averages that may or may not apply to an individual decision maker. You, as an individual, will have a much better feel for your past experiences and expectations of your future in the Air Force. For this reason, feel free to update or change any data in the spread sheet to make it more closely approximate your experiences. The civilian data is extracted from the Data Base at FAPA Headquarters, Atlanta, GA. Although not complete, it should be much better than the second-hand hearsay and rumors that float around most wings.

1. TYPICAL DUTY DAY

A. Air Force

Crew duty day - 16 hours
Augmented crew - 24 hours

Office day - varies with individual

B. Airline Jobs

Unlike the Air Force, the airlines track actual flying hours which are called "hard hours." The duty day is limited to 8 hard hours, which can add up to 16 hours of contact time ("duty day" in Air Force terms).

2. NIGHTS AWAY FROM HOME

A. Air Force

The following numbers will seem quite low for most squadron level pilots as they are command wide and include all pilots at all levels of command (squadron through higher headquarters) as well as those assigned and attached for flying duties. With that in mind the MAC averages are:

Avg TDY: Strategic Airlift - 13 days/month
Tactical Airlift - 10 days/month

B. Airline Jobs

Most airline trips are either 3 or 4 days in length. On an "average" 3 day trip, you leave home in the morning of the first day and return on the evening of the last day. This results in 2 nights away for a 3 day trip and 3 nights away for a 4 day trip. It is also possible to select trips that "crew rest" at your domicile and cut out nights away entirely. The actual number can vary from 0 to 12 nights per month with an average of 8.

3. DUTY DAYS PER MONTH

A. Air Force

Unlike most of the major air carriers, the Air Force expects its officer pilots to do more than just fly. The actual number of duty days per month will vary between individuals, weapon systems, base, and type/level of additional duty. We realize that many officers come to work while they are on post mission crew rest. In some cases, this is due to the perception that it is required in order to get promoted. In other cases, the additional duty was selected because it was of interest to the individual officer. In either case, you will have to fill this spread sheet entry with the number of days that you have worked in the past or more importantly expect to work in the future. As a side note, many pilots look at the number of free days per month that the airline pilot has when compared to his/her experience in the Air Force. From an economic standpoint, we could view the extra work days during an Air Force career, as putting work days in the bank against early retirement. The ability to "retire" at 20 years gives many officers the opportunity to select a job that they would really like, but may not pay very well, and not lower their standard of living.

B. Airline Jobs

Like most other aspects of the job, this characteristic will vary between pilots depending on personal choice and seniority. The airlines refer to hours on duty per month vs number of days. They are constrained by FAA regulations and union contracts. An airline pilot is limited to 1,000 flight hours per year by the FAA (average of 83 hours per month). The contracts vary, but most pilots fly anywhere from 45-85 hours per month with the average in the 70-75 hour range. This results in an average of 200-320 hours on duty per month. In the Air Force equivalent of duty days, this comes out to be anywhere from 10 to 18 days with an average of 14 or 15.

4. JOB FLEXIBILITY

A. Air Force

One of the common complaints made by junior officers when they first start their flying careers is that "I wish they would just leave us alone and let us fly." Although it doesn't happen to every pilot, many feel that as their career progresses, it is nice to be able to broaden one's career by selecting jobs with increasing responsibility. The Air Force has 26-year old aircraft commanders. How old will you be when you become a Captain with an airline? The Air Force offers a variety of squadron, wing, AF, and MAC level staff and command positions that can stimulate and challenge any number of skills. It is also possible to move back and forth between flying and non-flying jobs as well as flying "part time" as an attached pilot.

B. Airline Jobs

There is a common perception on the part of many military officers that the airline pilot job is boring. To some extent it is less varied than the military mission, both in route structure and military profiles (low level, air drop, air refueling, etc.). It is also true that the airlines spend large sums of money to make their flights as hassle free and uneventful as possible. Many airline pilots would counter that this is a misconception and we feel many military pilots would agree. The key difference is one of flexibility. Every month each pilot is given a "bid sheet" from which to select next month's flights. Depending on his or her seniority, the pilot can have 1st choice (lowest line number) or take what is left (highest line number). Since there are any number of different ways to bid a line number, even those with fairly high numbers have a good selection of possible choices. Several common bidding techniques are listed below.

- o Maximize pay
- o Maximize days off
- o Maximize weekends off
- o Select given days off (birthdays, weddings, anniversary, etc.)
- o Good crew rest locations

The bottom line is that airline pilots don't have to fly the same route structure each month or even have the same goal. They have the flexibility to make their schedule as varied or "boring" as they would like. In addition, it is possible to trade trips, or even not to take a given trip if they have a pressing commitment (they are not paid for the trip they don't fly, since they are paid by the hour vs the month as military pilots are).

In addition, the airline industry allows its pilots to "career broaden" if they would like. Pilots have the option of filling training positions or even moving into management. In addition, they receive extra incentive pay if they decide to make the move. It is also possible to move back and forth from a line position to headquarters type positions without losing the all important line number. They also have the flexibility and free time (15 days per month) to start their own business or work part time in a field of their choice.

5. MEAN TIME/EXPENSE OF MOVES

A. Air Force

The historical data, through FY 86, for average time-on-station (given in months) is presented below.

TABLE 8

Type of Personnel

Weapon System	UPT Grad	Prior Qual C-9, C-21, etc.	Re-Qual	Overall
C-130	50.4	46.5	49.2	49.4
C-5	50.6	53.1	43.5	50.1
C-141	53.6	36.9	42	47.1

These numbers include members departing station for reasons such as DOS, retirement, or reassignment. It should be noted that these are historical figures, and that the current budget environment has changed over the past year. In an effort to reduce PCS costs, the Air Force is currently making changes that should increase the stability of assignments and increase the numbers given above. Many Air Force people must absorb large out-of-pocket expenses for each move.

B. Airline Jobs

The average airline pilot will have one or two moves over the 30 years of his or her career. This number may seem quite low to many Air Force officers for several reasons. Most moves that occur happen early in the airline pilot's career, when he or she is still corresponding with friends still in the service. A recent FAPA publication states that one-third of their members move each year. This is somewhat misleading as most FAPA members are young pilots looking for a job or those who have just recently found a job and are moving to their first domicile. The other factor which cuts down on actual moves is the flexibility to commute if the pilot would prefer to maintain the same residence. Approximately 50% of the civilian pilots with major airlines commute. Commuting will be covered in more detail in a later section. If the airline makes a change that would require a move, deleting a domicile for example, then the airline will cover all costs of the move. Unlike the military, the company covers such things as buying a pilot's home if it can't be sold on the open market. On the other hand, the company doesn't force the pilot to move if his domicile changes. Depending on the company, the individual has several months to decide whether or not to move. Once the window of opportunity is past, any move the pilot wishes to make must be paid for by the individual pilot. Likewise, if a pilot decides to move for whatever reason and it is not at the request of the company, the individual has to cover all costs at his own expense. It appears that the increased number of mergers has not had much effect on the number of moves as most pilots have elected to commute instead.

6. DEPENDENT TRAVEL

A. Air Force

Air Force dependents can travel military air only when accompanied by the military member, and only overseas. Depending on the time of year, and location, the experiences can vary from quite nice (no wait, fly on a contract carrier), to unacceptable (14 day wait, troop seats in a C-130, etc.).

B. Airline Jobs

For the most part, the average major airline provides almost unlimited travel privileges to the pilot and his individual family. For commuting purposes, most airlines offer the cockpit jump seat to the pilot at no charge (after take-off most sit in empty passenger seats - including First Class). The pilot can also pay $10 for an empty passenger seat if the jump seat is already full. The family can also travel for free (some airlines limit this to once a year) or purchase a variety of tickets at anywhere from 90% to 50% off. Depending on the carrier, the pilot's parents can also travel for free once a year. Since different families travel different amounts, it is hard to quantify this benefit. It should be noted that many pilots and their families travel more once they are hired, since the additional free time combined with free or low cost travel makes a number of short (3 to 4 day) vacations possible.

CAREER IRRITANTS

The following is only a short list of the most common irritants heard from MAC crews. The list is not meant to be all inclusive. Some would add overseas tours/domicile locations, late night departures, etc. As many of these are personal and vary widely between individuals, we decided to keep the laundry list fairly short. It should be noted that one person's irritant can be another's benefit.

PME/MASTERS DEGREE

A. Air Force

The Air Force believes in increasing the human capital of its members through higher education. This can be a major irritant or a major benefit. If you see these as squares that have to be filled to increase your probability of being promoted and having no secondary benefits, then they are a complete negative or cost. On the other hand if you receive an AFIT slot and get an advanced degree while receiving a paycheck and without paying tuition, or by the use of your GI benefits, this can be a large plus.

B. Airline Jobs

N/A

INSPECTIONS

A. Air Force

In addition to individual checkrides for pilots, operational units are given a variety of inspections from ORI's, to maintenance inspections, to base appearance visits, etc. Each inspection is accompanied by its practice inspections and increased workload. Most pilots view these inspections as a no-win situation. Lots of visibility if you make a mistake and no appreciation if you do well and the unit passes.

B. Airline Jobs

The airlines give their pilots checkrides (2 per year as a captain, 1 per year as a first or second officer) but have no equivalent to the military's ORI's, etc.

COMMUTING TIME

A. Air Force

N/A

B. Airline Jobs

From the small sample of pilots that we talked to, the job characteristic of commuting was perceived as a "royal pain" to "no big deal." The bottom line for most is that unlike the military, they had the choice to move or commute and that the commute was less painful than a move. The average cost to commute varies widely from 0 to 600 dollars in out-of-pocket expenses per month and 0-4 work days. The controlling factors were where you choose to live in relation to the domicile, and how well you were able to match a trip's departure/finish times with either outbound or inbound flights. Some pilots where able to leave home in the morning and arrive at their domicile in time for an afternoon flight, others had to plan on a hotel stay the night before.

ADDITIONAL DUTIES

A. Air Force

This category is related to that of width of responsiblity. We decided to use two separate headings since the Air Force is perceived as having two basic types of additional duties. There are many operations related jobs that squadron pilots pull that are interesting and truly "responsible." There are also those that are viewed as mandatory for OER purposes, "only 1 OER line for my job, the rest is other." Many of these jobs are viewed by most pilots as a pure irritant.

B. Airline Jobs

Roughly 5% of all civilian pilots are involved in non line duties such as administration, training, or operations. It is strictly voluntary and is accompanied by extra pay.

ABILITY TO PLAN AHEAD

A. Air Force

This is a major problem for most strategic airlift units, and has two major components. The first is that the pilot needs only be given 24 hours of pre-departure crew rest. The second is that there is no guarantee of return date; a 2 day trip can be diverted and be out for a week or more. Both of these factors make it almost impossible to plan ahead for any social function, whether its a movie with friends or a birthday of a spouse or child. The problem is not as serious for the C-130 or C-9 units.

B. Airline Jobs

The airline world is totally different. Each pilot bids on a line for the following month, and receives his schedule 10 to 20 days before the start of the month. Even those pilots who don't have a line but are on call are guaranteed 10 specific days each month when they will be free of any airline obligation. If something unexpected comes up, pilots are allowed to trade trips or even drop trips that conflict with the unforeseen obligation (pilots who dropped trips are not compensated for the hours that would have been flown). It should also be noted that being "on call" is not the same for airline pilots. Unlike MAC where Bravo Alert means being at the flightline in 1 hour, a portion of airline on-call means being by the phone for 1 hour in the morning and 1 hour in the evening for notification of a flight the following day. In addition they are not put on a flight that would be gone over a day that was previously a free day.

CONCLUSION

This report provides an economic comparison of the military and civilian pilot jobs. We acknowledge that individuals have certain psychic factors which are important to them. However, we feel that the economic factors presented in this research explain most of the behavior of individuals. We are confident that we have provided the necessary information for an individual to make a rational decision.

The Air Force provides excellent career opportunities. The compensation and benefits available to officers compare very favorably with those of jobs in the private sector. There are opportunities for travel, career broadening, increasing responsibility, advanced education, service to country, and job security. These are just a few of the many factors in favor of a military career. When faced with the choice between an "average" private sector job and a military flying career, many people have chosen to remain in the Air Force. The factors which in the past contributed to high retention have changed, and continue to change.

A direct comparison of pay and benefits between the two sectors shows that an Air Force career is a distant second place to flying with a major airline. If a pilot can provide sufficient income or savings during the first few years with an airline, it would be a rational choice to separate from the Air Force. Not only do we compare unfavorably in terms of compensation but we also face problems in almost every non-pecuniary job characteristic. There is still the uncertainty of any private sector job in terms of job security. However, only the most risk averse individual would remain with the "security blanket" to which they have become accustomed. There are certainly some Air Force members who would remain for other reasons, such as service to country, but the majority will respond to the economic factors.

There are several trends in airline hiring which suggest that the labor market for pilots in the future will turn against the Air Force. The civilian airlines definitely prefer former military pilots with their experience at flying large and fast jet aircraft. There has also been a tremendous decrease in the supply of people with these skills as the Armed Forces have been training fewer pilots in recent years. This shortage has led to more aggressive policies by the airlines. The situation will get worse as supply

continues to decrease and the airlines get more bold in their efforts to hire military pilots. They have already altered their age, eyesight, and flying hour requirements for newly hired pilots. This will allow larger groups of Air Force pilots to consider separation, thus decreasing the size of the "capture zone" where individuals were expected to continue for a twenty year career. In previous time periods, business cycle downturns improved Air Force retention. This may no longer be the case as retirements alone will be greater than the Air Force rate of pilot production in the future.

The information provided in this report may be used in two ways. The first is for its initial intended purpose, to allow each individual pilot to make a well informed, rational choice about whether to remain in the Air Force or to separate and seek an airline flying job. To release this information at this time, without taking corrective measures, might indeed lead to more separations, not fewer as originally intended. However, several airlines intend to release similar information in the near future. Second, this information can be used now by Air Force policy makers to provide programs and plans which will compete in the marketplace for trained pilots. We are in direct competition, and the conclusion of this research is that the Air Force can expect to be a big loser in the very near future.

APPENDIX A

WEIGHTED INDEXING

The first suggested approach to the decision process uses weighted indexing of the various job characteristics or dimensions to arrive at a single number to describe each of the two choices. To use this approach you, as an individual, must be able to rank order the importance of each charateristic relative to each other (the weight) as well as relative to each job choice (the value). For example, you would rank the characteristics from most important (value equal to the number of characteristics) to least important (value of 1). As a refinement you could put a relative weight on each characteristic by using a larger scale. If, for instance, you felt that compensation was 50% of the decision you would give 500 pts out of 1,000 to compensation. If the second most important factor was nights away from home and it was 10% of your decision, you would give this factor a weight of 100 pts out of 1,000. You would then rank all characteristics in a similar manner until the total of 1,000 pts had been allocated. If you don't feel that a particular characteristic in the Spread Sheet is important to you - give it a Zero. On the other hand, if you have additional factors - weight them accordingly.

The second step is very similar, in that we are assigning values, only this time it is across the various job categories vs. job characteristics. Once again the simplest approach would be to simply rank order each job, best (value of 2) to worst (value of 1). The drawback of this method is that you lose relative differences. If for example, you felt that the pay for the civilian carrier was twice as good as that of the military, you would use the following weights: Civilian - 666, Military - 333. You would then rank each of the job categories in each job characteristic. The smaller example given below will be used to demonstrate the remaining calculations.

TABLE A1

		JOB		
JOB CHARACTERISTIC	WEIGHT*	1	2	3
Time Between Moves	500	600**	200	200
Duty Hours	200	100	400	500
Pay	300	100	800	100
TOTALS		350,000	420,000	230,000

NOTES: * 50% of my decision is based on time between moves
20% of my decision is based on duty hours
30% of my decision is based on pay

** under the category of "Time between moves", job 1 is 3 times as good as job 2, which is about equal to job 3.

The next calculation will give you a single number that you can use to compare the various jobs. If we multiply each characteristics weight times the value received from a particular job and sum this total over all characteristics, we end up with a weighted index. The totals for each job listed in the matrix above are a result of this calculation. For example, total for job 1 equals 350,000 [(500) (600) + (200) (100) + (300) (100)]. The net result is that you would select job 2 since it has the highest overall level of satisfaction - even though job 1 was better in the area of time between moves, the most important characteristic, and job 3 was better in the area of duty hours.

The difficulty of the leave or stay decision is that the DOS choice has several possible outcomes. Your first choice may be a job with Northwest a single tier major carrier, but they could decide not to hire you and you could end up with your second or third choice of carrier. In other words we need to include the probability of hire in our decision process. In fact you are choosing between an Air Force career, and a given probability of being hired by a variety of carriers.

Let's take one more look at the simplified example give above. If job one is staying on active duty, job two is your first choice of carrier (probability of hire 50%), and job three is another carrier (probability of hire 50%), our choice is job 1 or a chance at either job 2 or job 3. This is shown graphically below.

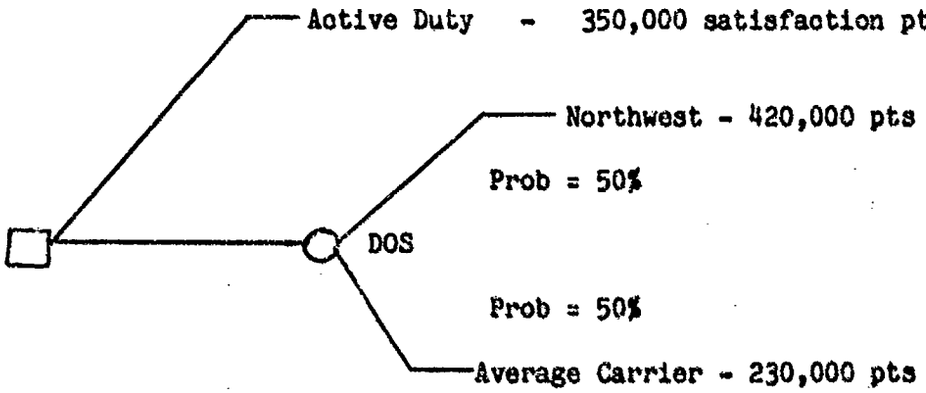


FIGURE A1

If you stay on active duty, you have a 100% chance of receiving 350,000 satisfaction pts; if you DOS you have an expected value of 325,000 satisfaction pts [(.5) (420,000) + (.5) (230,000)].[1] For the hypothetical numbers given, the best choice would be to stay on active duty, since this option would yield the highest expected satisfaction.

[1] Expected value takes into account the uncertainty of various outcomes by multiplying the probability of an outcome by its value and then summing across all possible outcomes $E(V) = \sum_{i=1}^{n} (P_i)(V_i)$: where P_i is probability and V_i is individual value.

It should be noted that most individuals do not make decisions on expected values alone. In fact, there is a large body of research on an area of economics called utility theory (see Introduction to Operations Research, Hillier and Lieberman, pg 629). The research in this area has led to the belief that most individuals are risk averse (i.e., avoid uncertainty whenever possible). For example, suppose that an individual was offered the choice of accepting (1) a 50-50 chance of winning $10,000 or nothing or (2) receiving $4,000 with certainty.

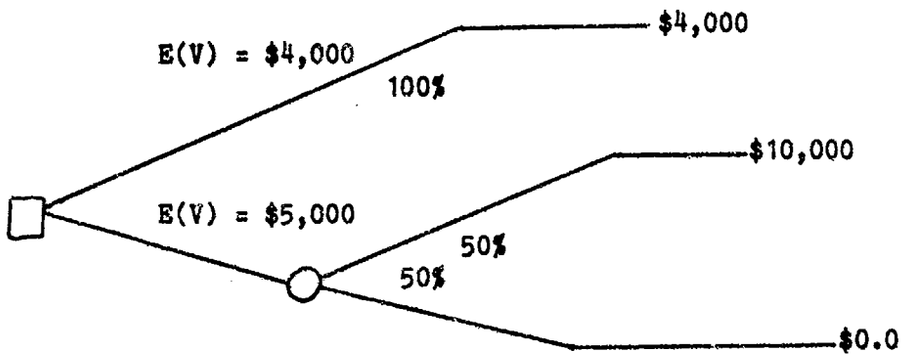


FIGURE A2

Many people would prefer the $4,000 even though the expected pay off (expected value) on the 50-50 chance of winning $10,000 is $5,000. Depending on your individual willingness to accept risk, you may be better off stopping the analysis at the point of Figure A1, at the point where you compare a certain and an uncertain outcome. (i.e., rather than calculate the expected values, use a "gut feel" for the probabilities and satisfaction levels.)

DECISION TREES

The second suggested approach to the problem uses a decision analysis tool called a decision tree. A decision tree is a graphical method of expressing, in chronological order, the alternative choices that are available to the decision maker (shown graphically as a "[]") and the choices that are determined by chance (shown graphically as a "O"). The major difference between this approach and the use of weighted indexing is how the uncertainties or probabilities are handled. When using indexing, the probability of furlough was used as a characteristic (job security), while in a decision tree the uncertainty would create an additional branch. In addition, this approach allows the decision maker to view a series of decisions over time vs. the single get out/remain on active duty decision. Please refer to Figure A3 for the remaining discussion.

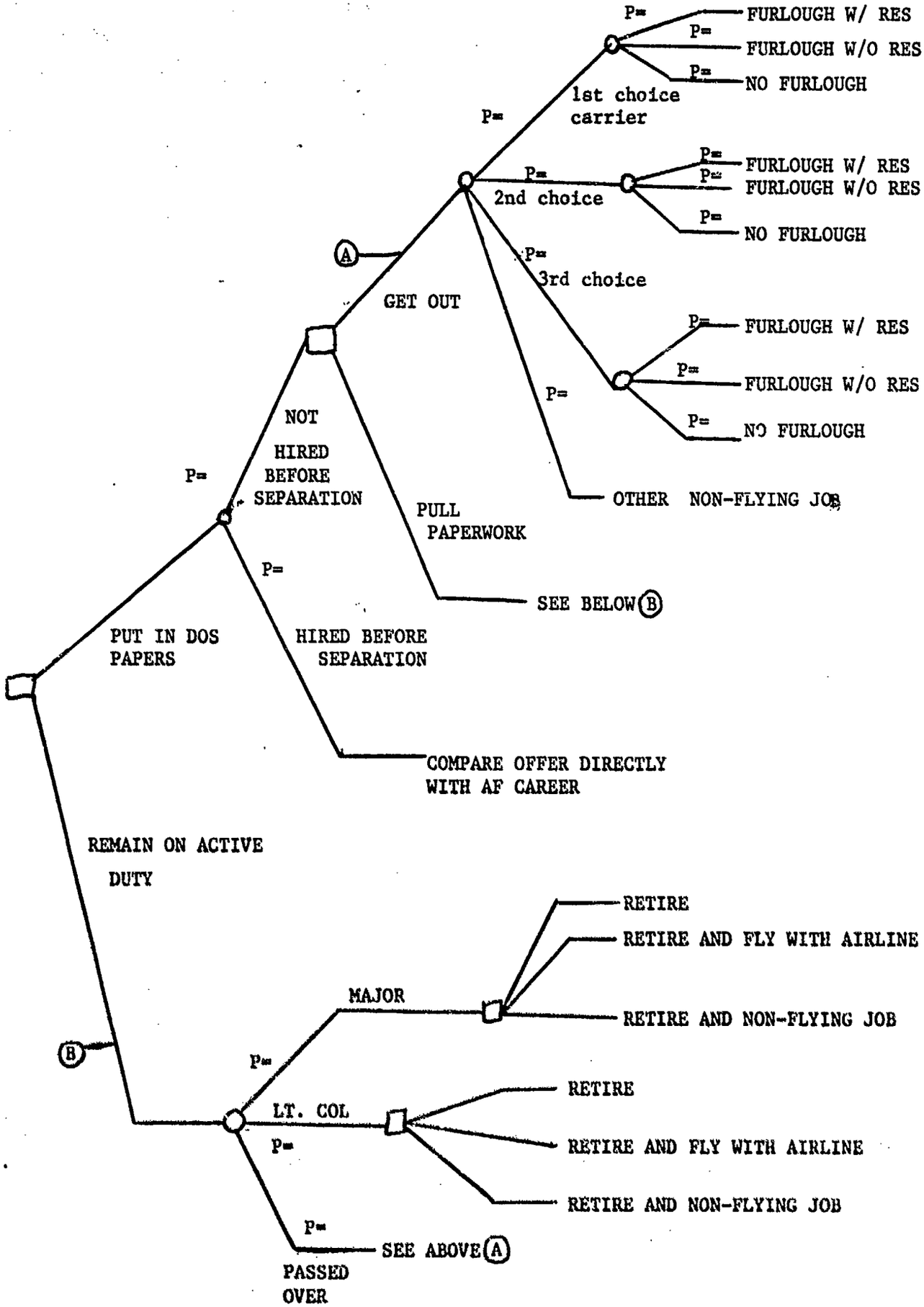
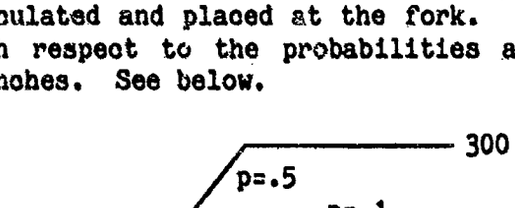

P=
FURLOUGH W/ RES
P=
FURLOUGH W/O RES
P=
NO FURLOUGH
1st choice carrier
P=
P=
FURLOUGH W/ RES
P=
FURLOUGH W/O RES
2nd choice
P=
NO FURLOUGH
A
P=
3rd choice
GET OUT
P=
FURLOUGH W/ RES
P=
FURLOUGH W/O RES
P=
NO FURLOUGH
P=
NOT HIRED BEFORE SEPARATION
PULL PAPERWORK
OTHER NON-FLYING JOB
P=
SEE BELOW B
PUT IN DOS PAPERS
HIRED BEFORE SEPARATION
COMPARE OFFER DIRECTLY WITH AF CAREER
REMAIN ON ACTIVE DUTY
RETIRE
RETIRE AND FLY WITH AIRLINE
MAJOR
RETIRE AND NON-FLYING JOB
B
P=
RETIRE
LT. COL
RETIRE AND FLY WITH AIRLINE
P=
RETIRE AND NON-FLYING JOB
P=
SEE ABOVE A
PASSED OVER

FIG A-3

The decision tree shown above is only a suggestion or starting point. Each individual will have their own viewpoints and alternatives. For example, you may have decided that you would only accept a job with one or two of the major carriers. In this case you would delete the "branches" that refer to other carriers. If you have decided to get out only if you have a reserve slot, then you might have to add a "branch" to include the probability of receiving the reserve slot in question. If you feel that you would not put in your papers unless you had already decided to get out (for whatever reason), your tree would start with a leave/stay decision. Once you have determined which decisions and possible outcomes fit your case and have diagrammed them in a manner similar to the one shown above, you are ready for the next step. At the end of each branch, or terminal point, you need to come up with an overall level of satisfaction with the final outcome listed. We would recommend the use of weighted indexes, although any method that you feel comfortable with will work (if your goal is to maximize income, then dollars would also work). Next you have to supply probabilities for each branch at a chance fork (represented by a "O"). We have calculated an average number for the major carriers as a whole; you will have to use your own judgment on individual carriers. If for some reason you feel your probabilities are better (i.e., FE written, type rated, etc.), or worse (eye sight problems, fewer hours, etc.) then adjust the numbers to a value you feel is more appropriate for you. The decision tree inputs are now completed and you are ready to start the necessary calculations.

For the purpose of calculations, we will be starting at the right side of the tree and will work our way to the left. Working backward from each terminal point to the nearest fork, a choice fork, an expected outcome is calculated and placed at the fork. This outcome is the expected value taken with respect to the probabilities and terminal values associated with the branches. See below.



NOTE:

235 = (.5) (300) + (.1) (450)
+ (.4) (100)

FIGURE A4

Continue to work backward until you reach a decision fork (represented by a "[]"). The value associated with this fork is the highest outcome available (i.e., is the best action to take, given the decision maker is at that fork) see below.

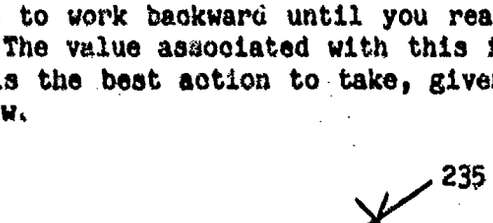


FIGURE A5

The symbol (X) through the other two branches eliminates the actions not choosen. Continue in the manner stated until you reach the initial decision fork, in our case either to put in your papers or to remain on active duty. At this point you will have a single number on both branches and will be able to select the choice that has the highest probability of giving you the most satisfaction.

I hereby represent to the Company that my answers to the questions above are true and correct, that they shall form a part of my pending application for insurance and that if my application is accepted they shall constitute the basis of my contract with the Company and shall be a part of any such contract. I further represent that I am currently on active flight status and that to my knowledge I now suffer from no ailment, disease or disability whatever (other than those declared above) and that I am not now under the care of a physician and am taking no medicine or drugs for any ailment, disease or disability except as described above; and that I have no knowledge of any disease or infirmity that may cause me to submit a claim in the future under this Airline Pilot Occupational Disability Policy. **I understand and agree that the certificate when and if issued to me, will not cover any disability which may result from any sickness, disease or injury of which I became aware or suffered before the effective date of the certificate.**

I hereby apply for membership in the Bell Curve Association. Through this application, I agree to abide by the By-laws of the Association. My membership, when approved, shall entitle me to all of the benefits, services and privileges available to members.

I hereby authorize any physician, hospital, clinic, insurance company or other organization, institution or person that has any records or knowledge of me, with reference to health and medical treatment, to give to Aviation Insurance Agency, dba Harvey W. Watt & Co. or its Agent or National Fidelity Life Insurance Company any and all information with reference to health and medical and any hospitalization, advice, diagnosis, treatment, disease or ailment. A photographic copy of this authorization shall be as valid as the original.

Date _____ Signature _____

Watt Plan 100			Watt Plan 125			Watt Plan 150		
Age	Premium	Coverage	Age	Premium	Coverage	Age	Premium	Coverage
through 24	$24	$100,000	through 24	$30	$125,000	through 24	$ 36	$150,000
25-29	31	100,000	25-29	39	125,000	25-29	47	150,000
30-34	37	100,000	30-34	46	125,000	30-34	55	150,000
35-39	48	100,000	35-39	60	125,000	35-39	72	150,000
40	64	100,000	40	80	125,000	40	96	150,000
41	64	100,000	41	80	125,000	41	96	150,000
42	64	96,000	42	80	120,000	42	96	144,000
43	64	88,000	43	80	110,000	43	96	132,000
44	64	80,000	44	80	100,000	44	96	120,000
45	69	70,000	45	86	90,000	45	103	108,000
46	69	65,000	46	86	80,000	46	103	96,000
47	69	60,000	47	86	70,000	47	103	84,000
48	69	55,000	48	86	60,000	48	103	72,000
49	54	50,000	49	54	50,000	49	65	60,000
50	54	45,000	50	54	45,000	50	65	54,000
51	54	40,000	51	54	40,000	51	65	48,000
52	54	35,000	52	54	35,000	52	65	42,000
53	54	30,000	53	54	30,000	53	65	36,000
54	54	25,000	54	54	25,000	54	65	30,000
55	54	20,000	55	54	20,000	55	65	24,000
56	54	15,000	56	54	15,000	56	65	18,000
57	54	10,000	57	54	10,000	57	65	12,000
58	54	5,000	58	54	5,000	58	65	6,000
59	54	2,000	59	54	2,000	59	65	3,000

I have reviewed the Group Insurance Plan available and make application for the following: WP 100 ☐ WP 125 ☐ WP 150 ☐

* Disability Endorsement For Lump Sum Coverage	Yes	No
	☐	☐

* Pilot Occupational Disability Insurance provides no benefit if the insured dies during the 12 month waiting period. For $5.00 per month you can add the disability endorsement that will pay the disability benefit if you die during the last eleven months of the twelve month waiting period. The first 30 days of disability is excluded, and the disability must be covered by your certificate of insurance.

Beneficiary's name with right to change as stated in policy.
The beneficiary name below supersedes any previously designated beneficiary.

Beneficiary's Name (print) _____
First Name Middle Name Last Name

_____ _____
Relationship To Applicant Address of Beneficiary

If designated beneficiary does not survive insured, payment will be made in accordance with the terms of the policy.

I understand that my insurance will not become effective until I am notified that my application for coverage is approved and premium payment for the first months coverage is received by H.W. Watt & Co. I further understand and agree that my coverage will become effective only if I am medically available for flight duty on the effective date and only if there has been no change in my health status since the submission of this application.