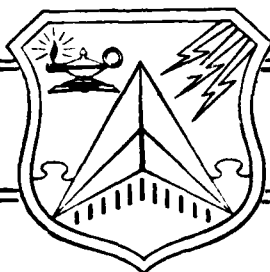


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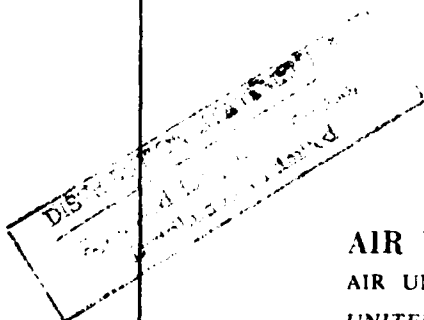
RETENTION SURVEY

RESEARCH REPORT



No. MS108-81 By Robert E. Lee, Jr.

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AIR WAR COLLEGE
AIR UNIVERSITY
REPORT NO. MS108-81

6 AIR WAR COLLEGE
CLASS OF 1981
RETENTION SURVEY,

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by
10 Robert E. Lee, Jr. [REDACTED]
Lieutenant Colonel, USAF

9 A RESEARCH REPORT, SUBMITTED TO THE FACULTY
IN
FULFILLMENT OF THE RESEARCH
REQUIREMENTS

MAXWELL AIR FORCE BASE, ALABAMA

11 April 1981

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AIR WAR COLLEGE RESEARCH REPORT SUMMARY
NO. MS108-81

TITLE: Air War College Class of 1981 Retention Survey

AUTHOR: Robert E. Lee, Jr., Lieutenant Colonel, USAF

This study reports the results of a retention survey administered by the author to the active-duty Air Force members of the Air War College class of 1981. The purposes of the survey were to assess the career and retention attitudes of the class of 1981, determine the factors shaping those attitudes, and compare the results obtained with those from a similar survey administered to the Air War College class of 1980. The 1981 survey focused on various factors which affect retention, including financial matters, family considerations, leadership, and social life/camaraderie. It also sought to determine the career intentions of the class of 1981. The results of the 1981 survey were in many respects better from an organizational viewpoint than were the results of the 1980 survey. The analysis of the results also revealed that the retention outlook among high-quality senior officers is positive and healthy.

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BIOGRAPHICAL SKETCH

Lieutenant Colonel Robert E. Lee, Jr., (M.B.A., American University) has served in several key personnel positions since his commissioning in 1963. These include Consolidated Base Personnel Office (CBPO) Chief; officer assignments in Headquarters Air Training Command; executive officer to the Assistant for Colonel Assignments in the Deputy Chief of Staff/Manpower and Personnel in the Pentagon; and, most recently, as chief, Personnel Evaluation Division, Air Force Manpower and Personnel Center, where he managed the Air Force officer effectiveness report (OER) and airman performance report (APR) systems. Lieutenant Colonel Lee is a graduate of the Air War College, class of 1981.

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CHAPTER I

INTRODUCTION

In January, 1980, Lieutenant Colonel Kenneth A. Anderson, USAF, a member of the Air War College (AWC) class of 1980, developed a retention survey and administered it to his active-duty Air Force classmates. According to Anderson, the purposes of the survey were "to determine the severity of the retention problem and help identify causes." (1:1)

The survey results provided a wealth of data for analysis, and some of the information was, as Anderson termed it, "rather dramatic." (1:2) Major findings included but were not limited to the following:

Inadequate pay, family related considerations and eroding benefits are the most negative factors in making the Air Force a career.

Over 90 percent of the class feel that retention is a very serious problem for the Air Force.

Over two-thirds of the class feel that Air Force senior leadership is not taking positive and effective actions to improve the quality of life in the Air Force.

There is a clear trend toward shorter careers within the class.

There are excellent motivational factors for making the Air Force a career--job challenge and satisfaction, service to the country and association with great people. These motivators are losing effect, however, since basic needs are being challenged because of inadequate pay and benefits. In addition, social changes dictate recognition of family needs. Instability, disruptions and separations must be reduced. (1:2-4)

Acknowledging that the survey results were not encouraging, Anderson concluded that:

Retention problems within any specialized group cause concern. Significant losses of highly experienced and

promotable senior officers are unacceptable if the Air Force is to support effectively national goals and objectives. No organization with a closed personnel system can continue as a viable institution under those circumstances. If personnel selected and trained to assume senior leadership positions do not remain within the organization, that loss is irreplaceable. The concerns, attitudes and intentions expressed by the Air War College class of 1980 offer a sobering analysis of where the Air Force stands as an institution today. (1:34-35)

Sobering, indeed! By any reasonable measure, the typical Air War College class is an aggregate of the Air Force's finest lieutenant colonels and colonels--the vanguard of the Air Force leadership for the decade following graduation. And as Anderson noted, it was "reasonable to extrapolate the survey data as representative of the top 10 percent of lieutenant colonels in the Air Force" (1:31)--a group numbering approximately 1600 compared to the 139 Air Force members of the class of 1980. Obviously, in January 1980 the retention outlook for the best Air Force officers at the mid-senior level was less than optimistic.

In his report Anderson recommended that the same survey be administered to subsequent AWC classes. (1:32) The AWC faculty agreed with that recommendation and decided that an annual retention survey of AWC students should be conducted as a part of student research. This study accomplishes that task for the AWC class of 1981.

The 1981 survey retained Anderson's basic framework of questions and included some new ones designed to accommodate the following factors:

1. The need to investigate more thoroughly the 1980 findings regarding pay and benefits
2. The 11.7 percent pay increase which was effective on 1 October 1980
3. The 1980 presidential election
4. The introduction of a sixth analytical category--social life/camaraderie

The net effect of the changes to the survey instrument was to increase the number of questions from 53 to 75. The added depth provided additional information regarding several factors considered key to a healthy retention climate. Moreover, the results of the 1981 survey were in many respects better from an organizational viewpoint than those from the 1980 survey. These 1981 results are summarized below.

1. According to the class of 1981, the three most positive aspects of an Air Force career are the job (principally job satisfaction), the people in the Air Force, and service to the nation

2. Financial compensation is still the most significant concern for this group. There was a slight improvement in attitude toward pay compared with 1980, but much ground needs to be covered before an adequate pay level is reached

3. There is a very high, positive relationship between longer careers and families who are satisfied with the Air Force way of life

4. A social/camaraderie category was added this year. The answer to the questions it contained indicated that negative

trends in the social/camaraderie aspects of Air Force life are contributing to the Air Force's retention difficulties. Concern in this area was most frequently expressed by rated officers who have spent most of their careers in flying jobs where mission, unit cohesiveness, and a strong social tradition provide a great deal of individual satisfaction, esprit and camaraderie

5. The most positive changes from 1980 to 1981 were the improved opinions about Air Force leadership. The animosity present in 1980 diminished significantly. The only major dissatisfaction remaining in this category among the class of 1981 is the strong perception that there is too much micromanagement in the Air Force

6. The 1981 class is acutely aware of the Air Force's retention problems, and they reported considerable difficulty in motivating NCOs and young officers toward making the Air Force a career. The class also agreed that there was a senior officer retention problem, but they were unwilling to sacrifice healthy promotion flow in order to fix it

7. The career intentions of the class of 1981 are positive and healthy. This observation results from additional data used for comparative purposes as well as to a difference in viewpoints between analysts (last year's and this year's)

8. Finally, retention was the single most important issue facing the Air Force today, according to the class of 1981

The 1981 survey annotated with the response percentages for both the 1980 and 1981 classes is provided at appendix A. The remainder of this study will focus on a detailed analysis of the survey results.

CHAPTER II

THE SURVEY

Purpose of the Survey

The purposes of the 1981 survey were to assess the career and retention attitudes of the Air Force members of the AWC class of 1981, determine the factors shaping those attitudes, and compare the results obtained with those reported in the Anderson study.

Hypothesis

Anderson's hypothesis was that "current retention problems are symptoms of much more serious institutional problems in the Air Force." (1:5) While this may be correct, it seems to be beyond the capability of a survey of Air Force AWC students to prove or disprove such an hypothesis.* At best, the most reasonable generalization which could have been reached from the 1980 survey was that the career attitudes of the Air Force members of the AWC class of 1980 were quite similar to those of a group of officers of like rank and quality. This is precisely what Anderson concluded--that the survey was representative only of the top 10 percent of lieutenant colonels and colonels in the Air Force. (1:31)

*Anderson acknowledged this limitation by stating that his "sample was small and not representative of all Air Force officers or all Air Force colonels and lieutenant colonels." (1:1)

The purpose of this discussion is to narrow the focus of the retention survey to an assessment of how the Air Force's best lieutenant colonels and colonels feel about their careers--nothing more, nothing less. This attempt at a more precise focus is based on the premise that the knowledge gained from the 1980, 1981, and subsequent surveys will aid in rounding out what the Air Force needs to know about the root causes of dissatisfaction--as well as satisfaction--regarding an Air Force career.

In summary, the most appropriate hypothesis to be derived from the 1981 survey would seem to involve some prediction of change utilizing the 1980 results as a baseline. Therefore, the statistical null hypothesis is that there is no difference between the two groups. Rejection of the statistical hypothesis supports the thesis that the class of 1981 has a much more positive outlook than did the class of 1980.

Survey Methodology

The 1981 survey is basically the same as the 1980 version. It consists of seven categories of questions: demographics, financial considerations, family considerations, social life/camaraderie, leadership, retention, career intentions, and miscellaneous. The 1981 version totals 75 questions, an increase of 22 questions from the previous year. Many of the new questions were included to probe more deeply into the finding that pay was the most serious concern of the AWC class of 1980.

The following Likert-type response scale was used for most questions: strongly agree, agree, disagree, strongly disagree. Note that it does not include a neutral, mid-point response. Anderson's reasoning for this format was that it "provided a common ground of comparison and correlation and forced a choice by each respondent." (1:6) This format was continued in the current survey for consistency purposes.

A total of 144 copies of the 1981 survey were distributed, and 140 (97.2 percent) were returned by the end of the two-week completion period. This compares favorably with the 1980 return rate of 87.8 percent (122 of 139).

The 1980 and 1981 surveys were distributed in January of the academic year. Anderson described this period as one where the mood of his fellow students was at a mid-to-high point. This assessment is also valid for the class of 1981.

Analytical Methodology

With the exception of the last four questions, which required fill-in-the-blank answers, respondents answered the survey on machine-scannable answer sheets to facilitate scoring of the results. Frequency-response-distribution percentages were computed for each question, with adjustments being made for instances in which no answer was marked and respondents who were single or had no children were instructed not to answer certain questions. Thus, only valid answers were used in calculating the distribution percentages. For some unexplainable

reason, this procedure was not used for the 1980 survey; rather, the distribution percentages were apparently calculated on the basis of the number of total respondents rather than the number of valid answers.* This error necessitated the recalculation of the 1980 response distribution percentages so that valid t-tests could be conducted on each question which appeared in both the 1980 and 1981 surveys. In almost every case these recalculations resulted in only slight adjustments to the response percentages, usually less than .1 or .2 percent. All 1908 percentages which appear in this paper are recalculations.

Statistical Tests**

The Statistical Package for the Social Sciences (SPSS) computer program was used for all statistical analyses. Two SPSS subprograms were selected, t-test and crosstabs. The t-test determines whether or not a difference between two samples indicates a difference in the populations from which those samples are drawn. In this survey analysis the samples are the Air Force officers in the Air War College classes of 1908 and 1981, and the underlying populations are the top 10 percent of colonels and lieutenant colonels throughout the Air Force for those two years. Each classes' responses to each survey question are compared, and the t-test estimates the

*Computer personnel believe this may have been caused by an inconsistency in response coding procedures which Anderson was not aware of.

**Individuals without a background in statistical analysis should read this portion carefully.

probability that any differences are due solely to chance.

The probability estimates are formed by hypothesizing that there will be no difference of opinion between the two classes and then proceeding to prove or disprove the hypothesis on a question-by-question basis. When a large difference of opinion is found on a particular question, the difference is termed "significant,"* and the hypothesis (that there is no difference) is rejected. The conclusion can therefore be made that there is a difference of opinion between the underlying populations.

There is always the possibility of making errors in this type of statistical testing. One such error (Type I error) is to decide that a difference of opinion exists in the two populations when, in reality, it does not. The key to successful analysis is to reduce the risk of making this error by specifying at the beginning of the test the maximum acceptable risk of error which can be tolerated. This is generally referred to as the "level of significance."

The level of significance (acceptable risk of a Type I error) normally depends on how serious the consequences would be if an error were made. If the consequences were extremely serious, the significance level would probably be specified at .01, i.e., no more than a 1 percent chance of error. On the other hand, less serious consequences might result in a significance level

*Significant, in its statistical sense, does not mean "important." Rather it signifies that a true difference exists between the samples.

of .05--as much as a 5 percent chance of an error is acceptable. These risk statements can also be expressed as confidence levels, i.e., a 99 or 95 percent confidence that the right decision was made in rejecting the hypothesis.

A second kind of error (Type II error) occurred when one accepts a false hypothesis. For example, a difference may exist between two groups but the statistical test does not indicate such a difference. An analysis of the probability of Type II errors is beyond the scope of this report.

The t-test significance level for this study was established at the .05 level, a level considered customary for statistical testing. To again emphasize, when a difference of opinion between the two classes is termed statistically "significant," it only means that we can be 95 percent confident that the same difference of opinion exists between the basic populations.

Of the 42 questions common to both surveys, 15 indicated statistical significance at the .05 level as a result of the SPSS t-test. Therefore, we can be 95 percent confident that in these 15 instances the opinions of the 1981 population differed markedly from the opinions held by the 1980 population. For the other 27 questions common to both surveys, we had less than a 95 percent confidence that the opinions of the two populations reflected "true" differences. Appendix B contains the result of the SPSS t-tests to assist in making this decision. The column labeled "2-tail Prob." under the heading "Separate Variance Estimate" reflects the calculated level of significance (probability of error) for each question common to both surveys.

The SPSS Crosstabs subprogram examines the relationship between two independent variables, such as the response distributions of any two questions which appeared in the 1981 survey. The principal statistic in the Crosstabs subprogram is chi-square, a test of statistical significance which determines the probability that a systematic (dependent) relationship exists between two variables (question responses).

The procedure begins with an hypothesis that the two sample variables (questions) being compared are independent. The chi-square equation then computes the differences between the theoretical distributions which would be expected if the variables were independent and the distributions which actually appeared in the sample. If the total difference is large, then a systematic relationship probably exists and the hypothesis can be rejected.

Like the t-test, chi-square utilizes levels of significance to minimize the risk of concluding that the relationship is systematic when in fact it is not. Generally, the chi-square significance level is set at .05. When chi-square indicates that a relationship between two sample variables is statistically "significant" at the .05 level, this means that we can be at least 95 percent confident that the variables (question responses) are related to one another in some fashion.

While a chi-square test helps determine dependency between two variables, it is incapable of describing how strong the dependency might be. A description of strength is important

because while there may be high confidence that the variables are dependent, the relationship in the sample may be very weak. The reverse is also possible. The sample relationship may be strong, but there is less than 95 percent confidence that the variables are truly dependent.

This latter point is important to the analysis of the 1981 survey. There are a few instances in which a strong relationship is indicated between two sample variables (questions), but chi-square provides less than 95 percent confidence that the variables are dependent. Given the unique nature of this survey, it seems inappropriate to exclude these few cases from the analysis; therefore, they will be utilized to offer added insight.

The SPSS Crosstabs subprogram offers a number of statistics which describe strength of relationship; the choice depends on whether the variables are measured at the nominal or ordinal level. Since a Likert response scale is considered to be at least ordinal, Crosstabs statistics which can be employed are tau (b or c), gamma, and Sommers D. Gamma was selected for use in this analysis. The possible values of gamma range linearly from -1 to +1 with 0 indicating no strength in the relationship.* A positive sign indicates, for example, that respondents who marked a particular response on

*According to an example in the SPSS text, a .34 (+ or -) represented a fairly strong relationship. (7:228)

one question tended to mark the same answer on the other question (A-A, D-D, etc.). On the other hand, a negative sign indicates that respondents who marked a particular response on one question tended to mark an opposing answer on the other question (A-D, D-A, etc.).

Statistical Highlights

The following summary highlights some of the results of the chi-square and gamma statistics from the 1981 survey:

1. Six demographic factors* were crosstabulated with 48 other survey questions for a total of 348 demographic crosstabs
 - a. 37 (10.6%) were statistically significant at the .05 level
 - b. An additional 22 (6.3%) would have been statistically significant if the .10 level had been established as the cutoff point
 - c. 27 (7.8%) had a gamma value in the ranges -1 to -.30 or +.30 to +1, considered fairly strong to strong relationships
2. Thirty question-to-question (non-demographic) crosstabulations were conducted to test for suspected relationships or response consistency
 - a. 24 were statistically significant at the .05 level
 - b. 2 others would have been statistically significant if the .10 level had been established as the cutoff point
 - c. 22 had a gamma value in the ranges -1 to -.30 or +.30 to +1 and were thus considered to have fairly strong to strong relationships

*Question 176, Date of Rank, was not crosstabulated.

Other Questions

The last four questions in the 1981 survey were fill-in-the-blank. One question asked respondents to estimate the quantity of a pay raise necessary to retain senior officers till they near mandatory retirement. Two questions asked each respondent to list the three most positive and negative factors in an Air Force career, and the last question asked what was the most significant problem facing the Air Force. The pay-raise data was manually compiled, and mean, median, and mode were computed. The responses on the positive and negative factors and the most significant problem were manually extracted and grouped according to topic. There were 18 positive topics, 21 negative topics, and six significant problem topics. Final rank ordering of the positive and negative topics was accomplished by awarding points based on order of placement on each individual survey. A number one factor received three points; a number two factor, two points; and a number three factor, one point. The responses to these four questions are examined in considerably greater detail in Chapters VII and IX.

Review of Chapter Analyses

The 75 questions in the 1981 survey have been grouped into seven categories for analytical purposes. These categories are:

1. Financial Considerations
2. Family Considerations
3. Social Life/Camaraderie
4. Leadership
5. Retention
6. Career Intentions
7. Miscellaneous Questions

The response distributions to each question have been combined into positive and negative percentages to facilitate analysis. The positive percentage represents a combination of the strongly agree and agree percentages, and the negative percentage represents a combination of the two disagree responses. The response distributions from 1981 are compared to the response distributions from 1980, and statistically significant relationships are highlighted. Statistical relationships among 1981 questions are then discussed. The primary purpose is to analyze fully each category separately. The following terms will be used for the demographic crosstabulations:

1. Grade: colonel, lieutenant colonel, etc. (In the crosstabs printouts, Response A includes colonels and colonel selectees; Response C indicates lieutenant colonels.)
2. Age (self-explanatory)
3. Time in Service: used in lieu of "Years of Service for Retirement," which appears in the crosstabs printout
4. PLSD: used in lieu of "Commissioning Year," which appears in crosstabs printout. (PLSD means Promotion List Service Date and for this group means essentially the same as commissioning year.)
5. Aeronautical Rating (self-explanatory)
6. Source of Commission (self-explanatory)

Before evaluation of the first category, a warning is necessary. In studying surveys of this nature, one has a natural tendency to spend more time looking at what is wrong rather than what is right. This problem is further compounded because respondents frequently recognize the potential power of the survey results and bias their responses in favor of a particular outcome. The reader should keep this fact in mind when considering the results of the 1981 survey and, for that matter, the 1980 survey, too. In both cases it is probably reasonable to assume that the attitudes of both groups are slightly more positive across the board, than they appear in the survey results.

CHAPTER III
FINANCIAL CONSIDERATIONS

Response Analysis

Let's face it--money talks! It talks because of what it can do for us within our social parameters. And it is naive for anyone to believe money talks less to military men and women than it does to civilians. It manifests free enterprise! I say it is not wrong for those dedicated to defend our country and all that it offers to expect a fair share of the profits according to demonstrated ability, initiative and degree/level of responsibility. (11:2)

This quote, excerpted from a 1973 letter written by an Air Force colonel selectee to the Assistant for Colonel Assignments, eloquently sums up how many of the members of the AWC class of 1980 probably felt about their own Air Force pay and allowances. In many respects it also represents the collective opinion of the class of 1981 toward their military compensation. For despite the October 1980 11.7 percent pay increase, and the new variable housing allowance, a considerable amount of concern and disgruntlement still exists among top-quality senior officers toward current compensation levels.

Numerous examples of concern are evident in the 1981 survey results. More than 66 percent of the class of 1981 personally viewed the October 1980 pay and allowance increases as less than adequate. More than 16 percent viewed the increases as far less than adequate. Ninety percent of the 1981 class said their pay and benefits compensation is inadequate

given the inherent risks and hardships of an Air Force career. Exactly the same percentage of the 1980 class felt the same way. Eighty-two percent of the 1981 class reported that it was hard to save money on their Air Force income, and over 86 percent indicated varying degrees of concern about making financial ends meet (32 percent "sometimes" concerned, 31 percent "usually" concerned, and 24 percent "always" concerned).

Two responses in this category reflected statistical significance between the opinions of the two classes. First, the percentage who believe they receive appropriate increases in benefits and privileges with each promotion rose from approximately 28 percent in 1980 to 46 percent in 1981. In the second area of significance, 90 percent of the 1981 class believe full dental care would be a valuable retention incentive. This percentage was over 5 percentage points higher than in 1980. The statistical significance is attributed to the much higher percentage of "strongly agree" answers in 1981--50 percent versus only 34 percent in 1980.

Three questions addressed the benefits issues. Approximately 94 percent of the 1981 class said that benefits are not as attractive as they once were. This percentage was down just over 3 percentage points from the previous year. In the medical area 63 percent in 1981 believed medical care to be a major benefit. This percentage was 5 percent lower than in 1980. On the other hand, only 38 percent of the 1981 class preferred contributing to a group plan for medical and dental care, compared to 45 percent in 1980.

In November 1980, the Air Force Times carried the details of a study conducted by two Air Force researchers as to why pilots were leaving the service. According to the article, "The main reason pilots leave the Air Force is they are not allowed to fly enough. All the other reasons--low pay, promotions, excessive responsibilities, etc.--though important, are secondary in the decision to leave the service." (3:1) The majority of pilots in the AWC class of 1981 had a different opinion. Told to assume they were in a flying job and given the opportunity to choose between a 20 percent increase in flying hours or a 20 percent increase in pay and allowances, 68 percent of the pilots selected the pay boost.* This indicates the possible existence of a crossover point between compensation needs and flying needs during an Air Force pilot's career.

One other question in this category which produced interesting results dealt with the amount of non-Air Force income received by each respondent and/or his wife. Possible answers ranged from "less than \$1000 annually" to "greater than \$30,000 annually." Twenty-one percent indicated outside income in excess of \$30,000 annually. This was also the modal response. The reason for asking this question will be covered in more detail in the section dealing with career intentions.

*Eighty-five percent of the navigators in the class chose the extra pay.

Statistically Significant Demographic Relationships*

Grade: Responses to three questions in this category were dependent on grade. Lieutenant colonels tended to strongly agree more often than colonels that it is difficult to save money on Air Force pay. The gamma value indicated, however, that the relationship in this sample was very weak. Lieutenant colonels were also more concerned about making ends meet than were colonels. The relationship was strong in this sample. Finally, colonels tended to have a bit more non-Air Force income than did lieutenant colonels, although the sample relationship was very weak.

Age: Two response patterns depended on age. Older officers more often indicated that they receive appropriate increases in benefits and privileges with each promotion. Older officers also tended to be more moderate in their criticism of the adequacy of the October 1980 pay raise. Both relationships, however, were weak.

PLSD: As with age, those with older PLSDs tended to be less critical of the amount of the October 1980 pay increase. The relationship was weak.

Aeronautical Rating: Three questions were dependent on aero rating, but all three relationships in this sample were weak. There was a slightly higher tendency among nonrated

*See appendix C for this Chapter's crosstabs printouts.

officers to indicate that they received appropriate increases in benefits and privileges with each promotion. Nonrated officers also indicated slightly more concern about making financial ends meet (probably because of the absence of flying pay). Finally, nonrated officers tended to more strongly disagree that medical care is a major Air Force benefit.

Question-to-Question Crosstabulations

The relationship between question 127 (there is adequate compensation, in terms of total pay and benefits, for the risks and hardships, of an Air Force career) and question 143 (Air Force benefits are just as attractive as they used to be) was statistically significant and very strong. Most who said compensation was inadequate also said benefits were less attractive, thus confirming the expected consistency of response between these items. Question 127 was also crosstabulated with question 158 (Air Force pay and benefits are comparable to those received for similar responsibilities in private industry). This relationship was statistically significant and very strong, confirming the consistency of response.

In the area of medical benefits, those who considered Air Force medical care to be a major benefit (question 133) generally did not want to provide for health care by contributing under a group plan (question 145). The relationship was statistically significant and fairly strong.

Three crosstabulations were conducted with question 172 which asked respondents to identify the range of their non-Air

Force income. None of these relationships was statistically significant, and all were weak; nevertheless, there is some utility in examining each one separately. First is the relationship between level of extra income and the ability to save money on Air Force pay (question 124). This crosstab indicated a confidence level of 93.7 percent, very near but still below the mandatory 95 percent level. Gamma, however, showed the strength of relationship to be very weak, with a negative sign. An examination of the table indicates that those with lower levels of outside income tend to be the same ones who think it is hard to save money on their Air Force income. The reverse, however, does not seem to be quite the case as higher levels of outside income do not necessarily equate with an attitude that it is easy to save money on Air Force pay. The conclusion is obvious: those with lower incomes find it harder to save money; and no statistical analysis was necessary to confirm that fact!

The most interesting crosstabulation in this financial category is also the most inconclusive one, statistically speaking. Again, the level of outside income was compared to the degree of concern about making financial ends meet (question 167). Here the confidence level in a true relationship was only 41 percent, and the gamma was extremely weak. There are, however, 22 cases of individuals with outside incomes in excess of \$30,000 who report a moderate to high concern with making financial ends meet. This contrasts with the 21 cases of individuals with outside incomes of less than \$1000 per year who

share the same concern about finances. Any conclusions about this are left to the reader.

Finally, level of outside income was compared to how the class of 1981 viewed the October 1980 pay increase (question 168). Again, the confidence level was low (48.7 percent), and the gamma was weak, with a negative sign. The most reasonable conclusion is that those with high outside incomes were almost as disappointed in the level of the 1980 raise as those with low outside incomes.

Other Observations

Lieutenant colonels tended to more strongly agree that full dental care would be a valuable retention incentive (question 117). While not statistically significant (confidence level: 94.7 percent), the gamma value indicated a reasonably strong relationship for this sample. In a similar vein, younger respondents reported higher degrees of concern with making financial ends meet (question 167). The confidence level was only 93.8 percent, but the gamma was sufficient to indicate another reasonably strong sample relationship.

One question-to-question chi-square test was conducted manually. The written responses to question 189 (how much pay increase is necessary to retain senior officers until they near mandatory retirement) were grouped into ranges as follows:

<u>Percentage Range</u>	<u>Number in Range</u>
0-9%	20
10-14%	43
15-19%	19
20-29%	46
30-100%	9

These ranges were then crosstabulated with the responses to question 164 (what are your career intentions?). The chi-square statistic was 22.54 for 12 degrees of freedom; thus, the relationship was statistically significant at the .05 level. Gamma was not computed, but the relationship pattern indicated that those who intended to stay in the Air Force longer tended to recommend a lower percentage pay increase. The reverse relationship was approximately as strong; those who indicated an intent to retire sooner, wanted more money as an incentive to stay longer.

Category Summary

While the 1981 survey may reflect a slight improvement in the financial outlook of these highly select officers, it is apparent that much ground still needs to be covered before any perceived "comfort" level is reached. Rather than one speculating on what it will take to show substantial improvement, it seems preferable to adopt a "wait and see" approach. The two pay raises planned for 1981, totalling about 14 percent, should help. But it remains the task of the Air War College class of 1982 to tell us how much.

CHAPTER IV

FAMILY CONSIDERATIONS

Response Analysis

In today's ultra-modern American society, the family plays a wider and wider variety of important roles in the life of the successful male wage earner. These roles frequently range from a highly intangible source of love, pride, and satisfaction to a highly tangible source of income needed to keep pace with inflation. In return, the family is also placing greater demands on the husband/father.

The contemporary American family seems less inclined to accept the stresses associated with long hours on the job, sometimes lengthy business trips, and frequent cross-country or even international moves necessitated by career advancement. Wives and children have learned that they can demand--and often receive--more quality time and attention. These problems are frequently magnified when the wife works--either out of economic necessity or to fulfill personal desires, or both. If the wife's job has career potential,* she becomes reluctant to move. She begins to taste success outside the home environment and, like any ambitious person, seeks more. All too often this sets up

*A recent Air Force Quality of Life survey administered to 5000 service members revealed that 56.3% of officers spouses are pursuing a career. (9:16)

a confrontation between marriage, family, and career(s). And something more and more frequently gives--the marriage, one career, or both careers.

Air Force families are certainly not immune to this classic mise en scene. Often these pressures are magnified exponentially in the military and are frequently translated into a growing family disenchantment toward the military as a way of life. This dissatisfaction usually manifests itself through pressure on the military member to stabilize matters by retiring as soon as possible or at least throttling back on the job. In either case, military readiness may suffer.

The questions in the survey relating to family considerations offer an opportunity to determine how a group of highly successful Air Force officers and their families are coping with the stresses and strains of modern military life. As with the overall survey, there is some good news here too. From a subjective viewpoint it would seem that family attitudes have changed positively in direct proportion to the attitudes of the 1981 class members. The majority of the eight questions in this category reflected improvements from last year. While none of the differences were statistically significant, the percentage changes deserve attention and comment.

Approximately 86 percent of the married officers in the class of 1981 believed that an Air Force career had had a positive effect on their families. This rate is slightly more than 10 percentage points higher than last year--a positive

trend. Complementing this trend was the percentage gain in the number of married officers who indicated that their families supported their continuing their careers. This percentage increased from 58 percent in 1980 to nearly 68 percent in 1981. An alternate perspective, however, is that one-third do not feel that their families want them to stay in the Air Force. This amount of negative internal family pressure should be a source of concern to management for several reasons, not the least of which is the influential nature of those expressing this particular opinion.

In terms of assignment stability the changes from 1980 to 1981 were very slight. Almost 89 percent of the class of 1981, versus 85 percent in 1980, said that increased assignment stability would have a positive effect on the Air Force. Correspondingly, the percentage of officers surveyed who want more assignment stability decreased from 56 percent in 1980 to 53 percent in 1981. These latter response rates could be somewhat misleading, because they do not precisely account for any respondents who have had relatively stable careers and who might have preferred to move more often. Approximately 45 percent of both classes reported that they would move unaccompanied to preserve children's education or wives' careers. Interestingly, those who strongly agreed with this statement increased from 10 percent in 1980 to 17 percent in 1981. This 1981 "strongly agree" percentage contrasts to the 19 percent of married Air

Force officers in this class who came to Air War College unaccompanied by their families.

In 1980, slightly more than 76 percent of the class indicated that their wives were working or would soon have to work to maintain the standard of living desired by the family. This percentage decreased more than 10 percentage points in 1981 to just under 66 percent. This reduction seems to indicate that the October 1980 increases in pay and allowances have contributed to improving the desired living standards of at least some senior officers. It will be very interesting to compare the results of the 1982 survey in view of the anticipated 1981 pay increases of about 14 percent.

Last year, 77 percent of the 1980 class felt that their families had to make greater sacrifices for Air Force career advancement than would have been required for comparable advancement in industry. This year that percentage decreased to 65 percent. There is no readily apparent explanation for this trend; however possibilities include an improved concern by leadership for Air Force families and a better understanding of what is required for advancement in the private sector.

The answer to the final question in this category also reflects an improvement from 1980, but, even so, the response percentage is still substantially negative. Last year, only 45 percent said they would encourage their children to consider an Air Force career. This year, 55 percent would offer such encouragement. However, in the author's opinion this still seems about 25 percentage points lower than it should be for this group of officers!

Statistically Significant Demographic Relationships*

Grade: Lieutenant colonels tended to strongly agree more often than colonels with the statement that increased assignment stability would have a positive effect on Air Force organizations and personnel. This relationship was strong. In a similar vein, exactly 75 percent of lieutenant colonels indicated that it is or would soon be necessary for their wives to work to maintain the desired standard of living. This compares to only 55 percent of colonels who responded in the same fashion. This relationship was fairly strong.

Question-to-Question Crosstabulations

As expected, the relationship between questions 115 (my career has had a positive effect on my family) and 144 (my family favors my continuing my Air Force career) was statistically significant and strong. Positive career effects matched closely with families favoring a continued career. Question 144 was also crosstabulated against question 164, which asked the respondents' career intentions. Those who indicated that their families favored their career also tended to be the ones who plan to stay on active duty longer. The relationship was statistically significant and very strong. The lesson is obvious--satisfied families mean longer careers.

*See appendix D for this chapter's crosstabs printouts.

Question 129 (it is or will soon be necessary for my wife to work to maintain our desired living standard) was compared to two financial questions. The first crosstab was question 167 (various degrees of concern about making financial ends meet). As expected, those whose wives who are working or plan to work are also generally more concerned about making financial ends meet. The relationship was statistically significant and very strong. Conversely, the relationship between question 129 and 172 (what is the amount of non-Air Force income which you and/or your wife receive?) was not statistically significant (confidence level: 42 percent) and very weak. One conclusion which can be reached is that there is almost no association between outside income, even as high as \$30,000, and the need for a wife to work to maintain the desired living standard. It could also be said that there are a wide variety of living standards among the group.

Question 148 (increased assignment stability would have a positive effect on the Air Force) had a statistically significant and extremely strong relationship with question 142 (I would prefer more assignment stability). This was an expected result; however, the absence of any "strongly disagree" responses on question 148 resulted in the 4x3 crosstab making the extremely high gamma value a bit suspect.

Other Observations

Officers in the grade of colonel, or who were older, or who had more time-in-service indicated more often than others

that their families favor their continuing their careers. None of these three relationships was significant; confidence levels were: 89 percent for grade, 69 percent for age, and 69 percent for time-in-service. However, the gamma values for this particular sample were fairly strong. The possible explanation for this pattern is that the families of the younger, more junior officers are experiencing some degree of ambivalence toward their husbands' careers which will likely continue until their husbands cross the successful-career threshold via promotion to colonel. Despite the Air Force's protestations to the contrary, achieving the grade of colonel is still the real mark of a successful career, especially for an elite group of hard-charging lieutenant colonels attending Air War College.

Category Summary

The most significant information in this category is that senior officers whose families are happy and satisfied with the Air Force tend to stay on active duty longer. The same probably applies to all married Air Force members--not just the senior group.

In this regard, it is worth noting a portion of a letter written approximately four years ago by an Air Force brigadier general to the editor of The Times Magazine, the supplement to the Air Force Times. This letter offered some career advice to young officers and NCOs, and in one paragraph it said: "The Service doesn't come first--people do. The men and women, their

spouses and kids." (10:4) It would appear today that the corporate Air Force seems to appreciate that notion more than ever before--given all the emphasis being paid to people and families. Adequate pay and sincere concern and action directed toward further improvements in the human side of Air Force life are the best tangible solutions for making real progress in the retention arena.

CHAPTER V
SOCIAL LIFE/CAMARADERIE

Response Analysis

This category was added to the survey at the request of an Air War College faculty member who argued, very persuasively, that negative attitudes and trends in the social life/camaraderie aspects of the Air Force life are contributing to the Air Force's retention difficulties. The responses to the five questions in this category would seem to confirm this contention.

Approximately 93 percent of the class disagreed (34 percent strongly) with the statement that "The social/camaraderie aspects of Air Force life are better than they were 10 years ago." Although this question did not ask if social aspects had worsened over the past 10 years, that interpretation does not appear unreasonable, particularly in view of the highly skewed response pattern and the solid proportion who strongly disagreed. Contributing to this interpretation was the response distribution to the statement, "In my last job my supervisors actively emphasized the social/camaraderie aspects of Air Force life." Fifty percent agreed; but fifty percent did not, and the response pattern was one of the most symmetrical encountered (9.3% - 40.7% - 40.0% - 10.0%).

In a positive vein, 84 percent agreed (31 percent strongly) that a strong social atmosphere within an organization

is an asset to retention. Similarly, over 91 percent agreed (47 percent strongly) that the best organizations they have worked in had high esprit and morale and strong camaraderie, on and off the job.

It seems clear that most of the officers in this group prefer a strong social life/camaraderie atmosphere; however, Air Force organizations do not seem to be meeting this need. As a possible result, slightly more than 50 percent of this class have turned more to civilian friends and the civilian community for their social life. In the opinion of this author, other factors may also be contributing to this change in social patterns--such as the trend toward off-base living and the growing inability of Air Force clubs to compete with off-base establishments on the bases of price and quality.

Statistically Significant Demographic Relationships*

Time-in-service and PLSD: Those with relatively more time in service and those with older PLSDs had a greater propensity to strongly agree that the best organizations were those with high morale and esprit. Both sample relationships were strong.

Aeronautical rating: More than 63 percent of the pilots and 51 percent of the navigators but only 24 percent of non-rated officers strongly agreed with the statement that the best

*See appendix E for this chapter's crosstabs printouts.

organizations are those with high esprit. A similar pattern emerged with regard to the statement that a strong social atmosphere is an asset to retention. Both sample relationships were strong.

Source of commission: Those who indicated "other" as a source of commission were more inclined to strongly disagree with the statement that the social aspects of Air Force life are better than they were ten years ago. The sample relationship was very weak.

Question-to-Question Crosstabulations

There was a statistically significant, extremely strong relationship between the responses to question 146 (a strong social atmosphere is an asset to retention) and question 156 (the best organizations I've worked in had high esprit and strong camaraderie). Each respondent tended to answer both questions the same way--positive-positive or negative-negative. This fact validates the consistency of response expected between these questions.

The cross tabulation between question 131 (the social aspects of Air Force life are better than they were 10 years ago) and question 160 (have turned more to civilian friends and community for social life) was not statistically significant and reflected a very weak association.

Other Observations

Grade: Colonels tended to agree more often than lieutenant colonels that a strong social life/camaraderie atmosphere is a major asset in retention. Colonels also strongly agreed more often that the best organizations they had been in had high esprit, morale, etc. Both relationships were fairly strong, but neither was statistically significant.

Age: Younger officers more often disagreed and older officers more often strongly agreed that the best organizations they had served in had high esprit and morale were in the younger age categories. The relationship was fairly strong but not statistically significant.

Category Summary

There is an identifiable pattern within the responses to these questions. Not surprisingly, the members of the class most concerned about deficiencies in the social life/camaraderie aspects of Air Force life are those who are rated, older, more senior, or have more years in the Air Force. Class members with these characteristics tend to be the ones who have spent much of their careers in flying jobs where mission, unit cohesiveness, and a strong social tradition provide a great deal of individual satisfaction, esprit, and camaraderie. There may also be a hidden thread of nostalgia in these responses--a longing for the "good old days."

Lessons to be learned from this category are that there is still a strong need among our best senior officers for a healthy, positive Air Force social climate, and that organizations having such a climate are highly desirable places to work.

CHAPTER VI

LEADERSHIP

Response Analysis

The changes of opinion in this category were the most positive of any in the survey. Comparisons of the responses from the two classes reflected differences of statistical significance in nine of the twelve questions in the category. The most dramatic changes were noted in the classes' opinions on how Air Force leaders were dealing with the retention problem. Last year, only 48 percent felt that senior Air Force leaders were well aware of the seriousness of the retention problem. In 1981, this percentage increased to 75 percent. Correspondingly, only 31 percent of the 1980 class said that Air Force senior leaders were taking positive action to improve the quality of life in the Air Force. In 1981, this percentage more than doubled to 76 percent--the largest shift of opinion in the entire survey. Both changes were statistically significant.

The efforts of Air Force leaders to improve the quality of Air Force life are being frustrated by the Congress and the executive branch, according to 87 percent of the class of 1980. Seventy percent of the class of 1981 indicated a similar feeling, a statistically significant shift. Recall that this survey was administered just prior to President Reagan's inauguration.

Even greater evidence of administration and congressional support since then would probably cause that percentage to drop much further if the same question was asked today. It will be very interesting to see the results of this question in the 1982 survey.

There seems to be a realistic appreciation among both classes that it is difficult to resolve career irritants at the unit level. Eighty-three percent of the 1980 class and 78 percent of the 1981 class were of that opinion. However, according to 63 percent of the 1981 class, Air Force leaders are more inclined to take suggestions on retention issues from the squadron and wing levels. This compares to 51 percent in 1980. This latter change was statistically significant.

Three questions in this category dealt with centralization of management. Not unexpectedly, 95 percent of the class of 1980 and 90 percent of the class of 1981 felt that it was unnecessary to centralize management further in spite of tougher budgetary and technological challenges. The 1981 class is less inclined, however, to lay the blame for today's micromanagement environment within the Air Force on demands coming from outside the Air Force. Only 48 percent of the class of 1981 blamed the legislative and executive branches for overcentralizing management, compared to 66 percent of the class of 1980. This trend was also evident in the fact that 71 percent of the class of 1981 said that the Air Force can internally resolve the issue of centralized versus decentralized management. This percentage

was up almost 9 percentage points from the previous year. Since the difference in the answers to the last two questions were statistically significant, it would seem that the class of 1981 is looking askance at the Air Force's inability to halt, and certainly reverse, the micromanagement trend.

The remaining four questions considered how the class personally viewed their seniors in the Air Force in terms of quality of leadership and the ability to develop leadership in subordinates. There was a marked difference in the 1980 and 1981 classes in this area. The most significant, both statistically and importantly, was that only 48 percent of the class of 1980 believed that Air Force general officers provided positive and effective leadership. Twelve months later, this percentage increased to 74 percent for the class of 1981. The only possible explanation for this improved attitude is a difference in classes, because the general officer force did not change that much in one year.

While the class of 1981 is much more impressed with the general officer force, approximately half of the class is frustrated by the actions of these same generals. This frustration frequency, however, is 10 percentage points lower than it was in the class of 1980.

Despite these frustration levels, about three-fourths of both classes indicated that in their most recent assignments, they had been given authority commensurate with their rank and responsibility. (The difference in answers to this question was not statistically significant.) Conversely, 62 percent

of the class of 1981 did not feel that the Air Force's institutional environment is conducive to developing military professionals. This percentage represents a decrease from 75 percent in the 1980 class. This question was statistically significant.

Statistically Significant Demographic Relationships*

Age: Younger officers had a slightly higher tendency, and older officers a lesser tendency, to be frustrated by the actions of senior Air Force leadership (question 126). The sample relationship was somewhat weak.

Aeronautical rating: More pilots tended to believe that the issue of centralized versus decentralized management is one that can be resolved internally by the Air Force (question 125). The relationship was fairly strong.

Question-to-Question Crosstabulations

Most of those who felt that senior leaders are well aware of the retention problem (question 119) also said that these leaders are taking positive action to improve the quality of Air Force life (question 128). This relationship was statistically significant and very strong, confirming the expected response consistency. Question 128 was also compared to question 121. (Congress and the executive branch are frustrating

*See appendix F for this chapter's crosstabs printouts.

the efforts of Air Force leaders to improve quality of life.) This relationship was significant and strong.

On the overcentralization of management issue, those who said the issue can be resolved within the Air Force (question 125) also tended to say that the demands of Congress and the executive branch were not the cause of the problem (question 159). The relationship was statistically significant and very strong.

The leadership area within this category also produced response consistency. Those who are not frustrated by the actions of general officers (question 126) also think these general officers provide positive and effective leadership (question 155). Even among those who are frustrated by general officers, the majority still think these generals are doing a good job.

The chi-square test indicated response consistency between question 140 (Air Force leaders are receptive to suggestions about retention from the wing and below level) and question 152. (Most career irritants can be resolved at wing and squadron level.) However the gamma value was extremely weak, indicating the sample relationship was very questionable.

Finally, no relationship was indicated between question 135 (in recent assignments, I have been given authority commensurate with my rank and responsibility) and question 150. (The current institutional environment in the Air Force is conducive to developing military professionals.) The confidence level was 61.5 percent, and the gamma was fairly weak.

Other Observations

Aeronautical rating had a moderately strong but not statistically significant relationship with question 152. (The capability to resolve career irritants at wing level and below.) Most respondents disagreed, but nonrated officers disagreed most often. The confidence level was 94.7 percent

Category Summary

Perhaps as a result of the mood of the 1981 class toward the leadership issue, it is difficult to attach much importance to this particular category, simply because it no longer seems to be a problem. Last year, there was a very clear thread of animosity among the majority of responses to the questions which dealt with leadership. This thread does not exist today--in any event, certainly not to the extent which it did last year. The only controversial issue in this portion of the survey is micromanagement. It seems that the 1981 class is much more concerned about it, but the survey does not reveal why. Next year's survey should perhaps probe that issue in more detail.

CHAPTER VII

RETENTION

Response Analysis

Considering all the play given to military retention problems during the last year, not only by the media, but through official channels and from the AWC stage, a member of the class of 1981 would have to be deaf or blind, or both, to say that the Air Force does not have a retention problem. Maybe it was the word serious in the question, or the fact that a senior Air Force leader had just said that retention was looking a bit better, or maybe it was mismarked answers, but there must be a valid explanation why four students in the 1981 class disagreed--one strongly--that retention is a "serious problem."

The responses to the questions in this category were the most heavily skewed in the survey. Moreover, with the exception of the family category, there was a great deal of consistency in the responses from both classes; only one question produced differences in responses which were statistically significant.

Ninety-seven percent of the 1981 class agreed that retention is a serious problem in the Air Force, up 1 percent from 1980. Likewise, 94 percent of the class of 1981 agreed that Air Force retention problems are more real than imaginary, again up 1 percent from 1980.

At the micro level, 83 percent of the 1981 class believe that the Air Force has a retention problem at the senior-

officer level (lieutenant colonel and above). However, only 27 percent of the class would be willing to slow down promotions in order to increase retention at the senior level.

Members of the 1981 class were also asked to write down the percentage increase they would apply to pay and allowances in 1981, over and above a cost of living increase, to provide a strong incentive for career officers to remain on active duty until within two years of retirement. A wide variety of answers was given, ranging from 0 percent to 100 percent. The response mean was 17.4 percent, the median was 14.5 percent, and the mode was 20 percent. (Twenty-eight respondents opted for a 20 percent increase.) For practical purposes the response was bi-modal, as 27 respondents chose a 10 percent increase. There is some doubt that this question was fully understood; hence its reliability is questionable. Nevertheless, the intent was to achieve some insight as to how much it would cost to keep the best people on board through 28 years.

Eighty-five percent of the class of 1981 said it was difficult to motivate young officers and NCOs to make the Air Force a career. A slightly higher percentage (87 percent) of the 1980 class reported difficulty motivating officers. However, only 78 percent of that class indicated difficulty motivating NCOs.

Part of the difficulty in motivating others towards a career may be the motivator's personal beliefs and motivations. In this respect, the class of 1981 has a distinct edge over the

class of 1980. Almost 64 percent of the 1981 class reported that their own motivation towards a career has made it easy for them to promote such a career for others. This percentage contrasts to only 55 percent for the class of 1980, and the difference was statistically significant. Thirty-one percent of the class of 1981 said that an Air Force career is an appealing option in today's society, up 5 percent from the previous year. These latter percentages are not surprising considering that roughly half of each class would encourage their children to seek an Air Force career.

One interesting question sought to determine whether retention problems were caused primarily by an attractive job market or by problems internal to the Air Force. Both classes leaned heavily toward identifying internal problems as the culprit (87 percent in 1980, 85 percent in 1981). Between January 1980 and January 1981, a mild economic recession occurred, and airline-pilot hiring ceased for all intents and purposes. To accommodate those developments, a question was added to the survey asking which had the more bearing, positive or negative, on retention--external factors, such as civilian jobs, or internal factors such as Air Force policies and procedures. Seventy-five percent of the 1981 class identified internal factors. This answer suggests that the Air Force should be able to solve a lot of its own problems in the retention area.

Internal solutions are fine, but, as noted in the financial category and elsewhere, inadequate pay is still the major issue. Asked how they thought the October 1980 pay raise would aid retention, 71 percent of the 1981 class said it would "help some," whereas nearly 24 percent indicated only a neutral or "no help" answer. Obviously, there is still room for improvement.

Statistically Significant Demographic Relationships*

Grade: Lieutenant colonels more often agreed and colonels more often strongly disagreed that an Air Force career is an appealing option in today's society (question 153). The sample relationship was only fairly strong.

Age: There was a very weak relationship between age and question 162. (My own motivation toward the Air Force has made it easy for me to promote a career for others.) Older officers were slightly more positive toward that statement than younger officers.

PLSD: Those with more recent PLSDs tended to agree more often that the Air Force is an appealing employment option. The sample relationship, however, was weak.

Source of Commission: OTS graduates more often tended to believe that the October 1980 pay raise would "help some" in aiding retention.

*See appendix G for this chapter's crosstabs printouts.

Question-to-Question Crosstabulations

Statistical significance among four crosstabulations validated response consistency in this category. Those who said the Air Force had a serious retention problem (question 161) strongly tended to agree that the retention problem was more real than imaginary (question 122). Most of those who found it hard to motivate NCOs (question 123) also found it difficult for young officers (question 137). Most class members who identified internal problems as the cause of retention problems on question 163 also identified internal factors in question 171. Finally, the majority of those who said the Air Force has a senior-officer-retention problem also said that it was more important to maintain a healthy promotion flow than to increase senior-officer retention.

Other Observations

Regarding the choice between increasing senior officer retention or maintaining a healthy promotion flow, lieutenant colonels were more in favor of the promotion flow than colonels, 83 percent versus 70 percent. The relationship was not statistically significant (confidence level 88.2 percent), but it was fairly strong in the sample.

Category Summary

Both the 1980 and 1981 AWC classes are aware of the retention problems facing the Air Force. They report a high degree of difficulty in motivating young officers and NCOs

toward making the Air Force a career. Some report this difficulty is attributable to their own motivation; however, it is less of a problem for the 1981 class. Internal factors bear the brunt of the blame for poor retention, but pay is still the most significant single issue. The recent pay raise helped, but more pay is needed. This 1981 class believes that the Air Force also has a senior-officer retention problem, but the class feels that maintaining a healthy promotion flow is more important than improving senior-officer retention.

CHAPTER VIII

CAREER INTENTIONS

Response Analysis

This chapter represents the most important portion of the survey. It looks beyond the statistics toward opinions on the issues, and tries to pin down what the respondents are planning with regard to their future careers.

Before addressing that question, we need to take a quick look at some facts and figures about officer voluntary retirements. There seems to be a perception that more and more colonels and lieutenant colonels are retiring each year at earlier and earlier points in their careers (after reaching retirement eligibility, of course). This perception is partially correct. The percentage of retirements is up; however, the average years of active service at retirement has actually been relatively stable, and, in the case of colonels, has even increased about one year. This can be seen from table 1 on page 52.

Intuitively, it would appear that the majority of the additional colonels who are retiring are those who have been on active duty longer; otherwise, the average years of service would be dropping substantially. Table 2, page 52 confirms that conclusion. The loss rates for colonels with longer service time have increased substantially from 1977 through 1979, whereas,

the loss rates are relatively stable for colonels with relatively less service.

TABLE 1
OFFICER VOLUNTARY RETIREMENTS*

<u>Fiscal Year</u>	<u>Colonel</u>			<u>Lieutenant Colonel</u>		
	<u>#</u>	<u>% of elig</u>	<u>Avg yrs of svc</u>	<u>#</u>	<u>% of elig</u>	<u>Avg yrs of svc</u>
1977	698	14.0	25.3	1245	18.2	23.0
1978	618	12.5	25.8	1202	17.7	22.4
1979	804	17.8	26.5	1608	25.3	22.9
1980	795	18.0	26.3	1549	13.3	22.8

*Source: USAFMPC/MPCAR (2)

TABLE 2
COLONEL VOLUNTARY LOSS* RATES BY YEARS OF TAFCS COMPLETED***

<u>TAFCS** (Yrs)</u>	<u>Loss rates per 1000 during 12 mo period ending:</u>		
	<u>Dec 77</u>	<u>Dec 78</u>	<u>Dec 79</u>
22	56	18	28
23	100	72	95
24	152	106	109
25	148	154	193
26	179	200	243
27	211	206	309

*Loss equates to retirement for this grade

**Total Active Federal Commissioned Service.

***Source: USAFMPC/MPCYAA (8)

If the members of the class of 1981 do retire at the times indicated by their responses to survey question 164, then the average years of service at retirement for the class would not be too different from the average years of service at retirement for colonels who have recently retired. Nor, for that matter, would the average years of service at retirement for the class of 1980 differ substantially from these averages.

The following are the stated retirement intentions of the two classes:

	<u>1980</u> <u>Class</u>	<u>1981</u> <u>Class</u>
1. Will stay as long as they can	5.1%	7.9%
2. Probably will stay as long as they can	17.9%	19.3%
3. Undecided--but won't retire early or stay till mandatory	48.7%	52.1%
4. Probably will retire as soon as eligible	17.1%	14.3%
5. Will retire as soon as eligible	11.1%	6.4%

If years of service at retirement such as 30, 28, 25, 23, and 21 are arbitrarily placed against those percentages, then the average years of service for retirement would be 25.4 years for the 1981 class and 25.0 years for the class of 1980. But those averages are somewhat meaningless, because they blend colonels and lieutenant colonels into a single figure. What is revealing, however, is to compare the career intentions of the 1981 class against demographic characteristics, disregarding statistical significance or strength of relationship.

Service-related* demographic crosstabs revealed that only 11 percent of the colonels will, or probably will, retire as soon as eligible. This contrasts with 29 percent for lieutenant colonels. Thirty-five percent of the pilots will, or probably will, stay as long as they can. This compares to 15 percent for navigators and 24 percent for non-rated officers. "Undecided" navigators were highest at 59 percent compared to 52 percent for pilots and 48 percent for nonrated officers. An interesting aside is that 57 percent of the pilots indicated their career goal was general officer. Only 37 percent of the navigators and 40 percent of nonrateds indicated that goal. This combination of aeronautical rating, career intent, and career goal indicates that pilots accurately perceive a greater opportunity for further advancement and longer careers than do the other groups.

Source of commission was a bit surprising, at least on the surface. Only 13 percent of service academy graduates indicated they will, or probably will, stay as long as possible. This compared to 32 percent for OTS, 29 percent for ROTC and 27 percent for "other" (principally aviation cadet). Service academy graduates were the highest "undecided" group at 66 percent, and at 26 percent ROTC graduates were the

*Grade, aeronautical rating, source of commission (see appendix H for these crosstabs)

highest group to indicate the tendency to retire as soon as possible. In all fairness, these source-of-commission relationships were essentially meaningless, with a gamma of .01 and a confidence level of only 39 percent.

This amount of detail is intended to dispel any notion that the best Air Force colonels and lieutenant colonels are leaning heavily in the direction of much shorter careers. Anderson, in his study, noted the possibility of such a trend among the members of the AWC class of 1980. He reported that 53 percent had become more inclined to retire when first eligible and that 75 percent had become less inclined toward a 30-year career. He concluded that:

These results . . . should prompt additional research and considerable concern. An institution which promotes from within for all executive positions must be able to retain those groomed for senior executive responsibilities. Professional military education is a poor investment if the graduates do not remain on active duty to assume key leadership position. (1:20)

Once again, the facts do not indicate the existence of a real problem in this area. Moreover, it seems unrealistic to expect the vast majority of senior-service-school graduates to remain till mandatory retirement. Every AWC class is made up of the Air Force's most competitive, ambitious officers, who will soon come face to face with the very real career limitations imposed by an extremely small number of general-officer billets. Not even a majority of graduates can expect promotion to general. Many of those who do not succeed will retire voluntarily to pursue other careers, using the same

drive and ambition that took them so close to the top in the Air Force. Certainly, there are trade-offs here; the Air Force loses a wealth of experience, but the private sector gains a top-notch executive. And the Air Force promotion and assignment system is preserve the vitality and opportunity so necessary to attract and retain ambitious, competitive younger officers.

In a very real sense, then, the AWC class of 1981 has a very healthy attitude with regard to career intentions. This assessment is made ever more meaningful by the high probability that almost all of the lieutenant colonels in the class will be promoted to colonel and take on a fresh outlook regarding their careers. In fact, 82 percent of the lieutenant colonels and 83 percent of the colonels in the 1981 class reported that another promotion would have a positive impact on their career intentions. The combined class average of 82 percent was 6 percentage points higher than last year, and the difference was statistically significant, primarily because of a higher "strongly agree" percentage in 1981 (44 percent versus 32 percent).

The "Inclination" Questions

As previously noted, the 1980 survey asked respondents their inclinations regarding early or late retirement. The results were: 53 percent had become less inclined as soon as eligible, and 75 percent had become less inclined to stay on

board till mandatory retirement. The 1981 class offers an interesting contrast; only 43 percent had become more inclined to exit early, and only 63 percent had become less inclined to stay for a full career. This latter change was statistically significant.

The problem with these two questions is that the results offered no bases for comparison. For example, if a respondent says that he is less inclined to stay in than he was five years ago, does that mean his inclination has dropped from 90 to 85 or from 30 percent to 0 percent, or does it mean that his inclination has not changed at all? To determine this latter possibility, two questions were added to the 1981 version. Among the class of 1981, 25 percent reported that they have always been inclined to remain till mandatory retirement, and 20 percent said they have always been inclined to retire when first eligible. Once again, these answers have limited utility because they do not reveal the degree of inclination. The best solution seems to be to drop these four questions next year and design some questions with adverbial descriptors such as occur in question 167.

Statistically Significant Demographic Relationships*

Grade: This demographic factor was related to three questions. On question 165, 55 percent of lieutenant colonels

*See appendix H for this chapter's crosstabs printouts.

said their career goal was general officer. The sample relationship was very strong. This pattern is also reflected in the grade relationship with question 118. (My career goal is to make O6 and retire while still young enough to compete in the civilian market.) Fifty-eight percent of the lieutenant colonels agreed; 76 percent of the colonels disagreed. This sample relationship was also very strong. Finally, 57 percent of colonels thought promotion to general officer was worth the time and effort (question 149); however, 64 percent of lieutenant colonels disagreed. The sample relationship was fairly strong.

Age: Younger members of the class tended to disagree that they were more inclined to remain on active duty till mandatory retirement than five years before (question 120). The relationship for this sample was fairly strong.

PLSD: Respondents with older PLSDs indicated more often that it was not their career goal to make O-6 and retire early (question 118). The relationship was fairly strong.

Aeronautical rating: Pilots indicated much more often (94 percent of the time) that they have not always been inclined to retire when first eligible (question 154). (Sixty-seven percent of the navigators and 70 percent of the pilots felt the same way.) This relationship was fairly strong.

Source of Commission: Eighty-seven percent of the Academy graduates felt that promotion to general officer was not

worth the time and effort it takes to achieve it (question 149). Those from OTS, ROTC, and "other" split equally on the question. The sample relationship was extremely weak

Question-to-Question Crosstabulations

Question 164 (career intent) was compared to four other questions, three of which were for response-consistency validation. Those who indicated that their career goal was to make colonel and retire while young enough to compete for civilian jobs (question 118) also tended to be considering shorter careers. Likewise, those more inclined to a 30-year career (question 120) indicated a preference for longer careers. Finally, those more inclined to retire as soon as eligible (question 141) tended to also say they were planning to retire early. All three relationships were very strong and statistically significant.

Question 172 (ranges of outside income) was crosstabulated with career intent to test the hypothesis that those leaning toward shorter careers had higher total family incomes, i.e., those planning to retire early were in a better financial position to do so. The relationship was statistically significant, though fairly weak in the sample, tending to confirm the hypothesis. One possible explanation for this relationship is that retirement decisions are influenced by the existence of a high level of outside income and the perceived need to "lock in" that income by removing the instability

factor in an Air Force career. If this theory is correct, then low pay is once more responsible for a retention problem, because financial deficiencies caused the need for the outside income in the first place.

Question 120 (I am more inclined to remain on active duty as long as I can) was compared for response consistency with question 141 (I am more inclined to retire when first eligible). Consistency was validated by statistical significance and a very strong negative gamma value. (Interestingly, eight respondents answered both questions affirmatively.)

Question 165 (career goal) was compared with question 149 (promotion to general officer is worth the time and effort). The relationship, as expected, was statistically significant and very strong. Sixty-nine percent who indicated a career goal of general officer also agreed that the promotion would be worth the effort involved.

Career goal (question 165) had a statistically significant relationship with question 118 (career goal is 0-6 and retire young enough to compete in the private sector). Those who indicated colonel as career goal also tended to agree on question 118, and those who marked general officer on question 165, tended to disagree with question 118. The gamma value indicated a very strong sample relationship.

Other Observations

There were two reasonably strong but not statistically significant relationships in the category. First, individuals

who said their career goal was general officer tended to have more time in service. Likewise, those indicating colonel as their goal have relatively less time in service (question 176 versus question 165)

In the second relationship, pilots represented 63 percent of those who have always been inclined to remain on active duty till mandatory retirement (question 178 versus question 130).

Category Summary

The perspective regarding career intent which has been described in this chapter differs substantially from that described by Anderson in the 1980 survey report. This new perspective is attributed more to a variance in viewpoints between analysts (last year's and this year's) than to the results of any statistical tests. Statistically speaking, a true difference between the career attitudes of the AWC classes of 1980 and 1981 exists in only two areas. There is a stronger tendency among the members of the 1981 class to remain on active duty till mandatory retirement, and a larger proportion of the class of 1981 reported that another promotion would have a positive impact on their careers.

This author contends that the career intentions of the top 10 percent of the colonels and lieutenant colonels are positive and healthy. Such an observation is based on a combination of four factors: a detailed analysis of the 1981 survey; the current retirement trends among all Air Force colonels; the needs of the Air Force; and, finally, the needs of

the individuals involved in this study. If this conclusion proves controversial, then the 1982 survey should help resolve the matter, but only if some fine-tuning improvements are made to the questions in this portion of the survey.

CHAPTER IX
MISCELLANEOUS QUESTIONS

Response Analysis

The final questions in the survey required respondents to list the three most positive and the three most negative factors of an Air Force career and then to write down what, in their opinion, was the most serious problem facing the Air Force. These three questions proved to be a real challenge to the respondents as well as to this author.

Numerous post-survey conversations with classmates indicated that in most cases respondents gave these written questions a lot of thought and spent the time necessary to produce some meaningful answers. Some saw it as an opportunity to get something off their chest, and a few took some "cheap shots." The positive and negative lists were the most difficult. There was a reasonable consistency in the first two listed in each category, but the randomness of the third one seemed to indicate it was a struggle for some to come up with three in each category. The "most-serious-problem" question seemed a bit easier and produced a highly consistent set of statements covering only six general categories.

Formulating the results into a manageable list turned out to be a major challenge. Anderson, in last year's study, chose

to list what appeared to stand out as the three most frequently mentioned responses in each area. These were:

Three most positive factors (1980)

1. Job challenge and satisfaction
2. Service to the country
3. The people who make up the Air Force

Three most negative factors (1980)

1. Pay and allowances
2. Family instability or separations
3. Declining benefits

Most serious Air Force problem (1980)

1. Retention of quality people
2. Maintaining a viable force
3. Money for people and weapons systems (1 21-23)

For the 1981 study, a decision was made to categorize all the responses on each question and to build a master category list for each question. The 1981 positive factors are listed in table 3 on pages 65 and 66. The 1981 negative factors are listed in table 4 on pages 67 and 68. Finally, the single most serious problem list is in table 5 on page 69.

As mentioned in chapter II, the ranking of the positive and negative factors was accomplished by awarding 3 points to a factor every time it was listed as number one, 2 points for a number 2 factor, and 1 point for a third place factor. This is essentially the same way press services rank order collegiate athletic teams.

Interesting observations from a comparison of the results from 1980 and 1981 include the fact that "the people" moved to

TABLE 3

POSITIVE FACTORS IN AN AIR FORCE CAREER

FACTOR	NUMBER OF TIMES LISTED AS:			POINTS*	% OF POINT GRAND TOTAL
	#1	#2	#3		
1. The Job/Work					
A. Job Satisfaction	28	17	10	128	15.3%
B. Flying	12	11	3	61	7.3%
C. Challenge (of the job)	13	4	10	57	6.8%
D. Responsibility (of the job)	15	4	1	54	6.5%
E. Job Opportunities	7	-	1	22	2.6%
F. The Job Itself	4	3	4	22	2.6%
G. Job Diversity	-	7	4	18	2.2%
H. Job Technology	-	1	-	2	0.2%
Sub-total of this factor	79	47	33	364	43.6%
2. The People	13	18	20	95	11.4%
3. Service to Nation	16	10	17	85	10.2%
4. Retirement System	10	11	14	66	7.9%
5. Travel	7	6	15	48	5.8%
6. Pay/Benefits	-	12	8	32	3.8%
7. Advancement/Promotion	3	7	5	28	3.4%
8. Leadership Opportunities	3	8	2	27	3.2%
9. Security	3	6	5	26	3.1%

*Based on 3 points for #1, 2 points for #2, 1 point for #3

TABLE 3 (continued)

POSITIVE FACTORS IN AN AIR FORCE CAREER (continued)

FACTOR	NUMBER OF TIMES LISTED AS:			POINTS*	% OF POINT GRAND TOTAL
	#1	#2	#3		
10. Professionalism	2	7	-	20	2.4%
11. Way of Life	1	4	-	11	1.3%
12. Educational Opportunities	1	1	5	10	1.2%
13. Impact on Family	-	-	6	6	0.7%
14. No Positive Factors	1	1	1	6	0.7%
15. Status/Pride	-	-	4	4	0.5%
16. Stability	-	1	1	3	0.4%
17. No Number 3	-	-	2	2	0.2%
18. Leave	-	-	1	1	0.1%
Grand Total	139	139	139	834	

*Based on 3 points for #1, 2 points for #2, 1 point for #3

TABLE 4
NEGATIVE FACTORS IN AN AIR FORCE CAREER

FACTOR	NUMBER OF TIMES LISTED AS:			POINTS*	% OF POINT GRAND TOTAL
	#1	#2	#3		
1. Financial Matters					
A. Inadequate Pay and Allowances	37	25	25	186	22.3%
B. Eroding Benefits	5	10	13	48	5.8%
C. Moving Costs	4	2	6	22	2.6%
Sub-total of this factor	46	37	44	256	30.7%
2. Management/Leadership					
A. Management Related	11	18	14	83	10.0%
B. Leadership Related	6	5	3	31	3.7%
C. Policy Related	4	4	11	31	3.7%
Sub-total of this factor	21	27	28	145	17.4%
3. Instability					
A. Family Disruption/Separation	20	12	12	96	11.5%
B. Moving	4	9	5	35	4.2%
Sub-total of this factor	24	21	17	131	15.7%
4. No Control Over Assignments	15	16	10	87	10.4%
5. Promotion/Advancement	9	8	5	48	5.8%
6. Lack of Prestige/Appreciation	6	8	11	45	5.4%
7. Resource Deficiencies	1	8	1	20	2.4%
8. The Job	3	2	3	16	1.9%
9. Navigator Discrimination	5	-	-	15	1.8%

*Based on 5 points for #1, 2 points for #2, 1 point for #3

TABLE 4 (continued)

NEGATIVE FACTORS IN AN AIR FORCE CAREER (continued)

FACTOR	NUMBER OF TIMES LISTED AS:			POINTS*	% OF POINT GRAND TOTAL
	#1	#2	#3		
10. Incompetent People	2	1	3	11	1.3%
11. PME	2	-	4	10	1.2%
12. Long Hours	-	4	-	8	1.0%
13. No Number 3	-	-	8	8	1.0%
14. Too Early Retirement	1	2	-	7	0.8%
15. Non-professionalism	2	-	-	6	0.7%
16. No Number 2	-	3	-	6	0.7%
17. Civilian Leadership	-	2	-	4	0.5%
18. Non-monetary compensation	1	-	-	3	0.4%
19. Inequality in the Workforce	-	-	3	3	0.4%
20. No Number 1	1	-	-	3	0.4%
21. Spouse Requirements	-	-	2	2	0.2%
Grand Total	139	139	139	834	

*Based on 3 points for #1, 2 points for #2, 1 point for #3

TABLE 5

THE SINGLE MOST IMPORTANT ISSUE FACING THE AIR FORCE TODAY

<u>ISSUE</u>	<u>TIMES LISTED</u>	<u>PERCENT</u>
1. Retention.	71	51.1%
2. Readiness.	24	17.3%
3. Management/Leadership	20	14.4%
4. Inadequate Resources	18	12.9%
5. Compensation	5	3.6%
6. Singles versus Marrieds.	<u>1</u>	0.7%
Total	139	

the number two positive factor in 1981 displacing "service to nation" into the number three position. The difference between these factors in 1981, however, was extremely close on a percentage-of-total-points basis--11.4 percent versus 10.2 percent.

On the negative side the difference is much greater and in some respects may not even be comparable owing to the different methods employed in compiling the results. Nevertheless, "Management/Leadership" was the number two negative factor in 1981, displacing "instability" to number three. Note, too, that "Eroding Benefits" is a subfactor under the number one factor in 1981, whereas it was a number two factor in its own right in 1980. As an aside, the number four negative factor, "No Control Over Assignments," would have probably moved up a notch or two if the 1981 survey had been conducted in late February or early March. This conjecture is based on the considerable amount of discontent voiced during that period by a number of officers who had not yet received firm post-graduation assignments.

In terms of the single most important issue facing the Air Force, the 1980 and 1981 lists match closely. In 1981, "Management/Leadership," however, replaced "Inadequate Resources" in the third position

Every written response to each of these questions is listed in appendix I (Positive Factors), appendix J (Negative Factors), and appendix K (Most Important Issue) There were several

reasons for compiling these lists and placing them in the study. The first is to satisfy the curiosity of any reader who might be interested in perusing the lists. The second is to provide a check on the selection process the author used to categorize each item (there will be some disagreement on how that process was accomplished). And the third is to capture the information for future research, not only for next year's survey, but in case anyone should choose to conduct a separate study along the lines of Herzberg's famous Motivation-Hygiene theory, which asserts "that the factors involved in producing job satisfaction (and motivation) are separate and distinct from the factors that lead to job dissatisfaction." (4:56)

In this latter regard, both Anderson and this author noted a striking similarity between the written responses and Herzberg's theory. Herzberg advocates that motivators are "achievement, recognition for achievement, the work itself, responsibility and growth or advancement. The dissatisfaction factors are company policy and administration, supervision, interpersonal relationships, working conditions, salary, status and security."* (4:57) It seems apparent that the factors being listed by the class of 1981 matched closely the types of factors labelled by Herzberg as motivators (positive job factors) and dissatisfiers (negative job factors). It is beyond the scope

*M. Scott Myers of Texas Instruments has also conducted research in this area. (6:73-88)

of this study to further explore this finding, but a separate study using the information captured over a period of several years might be feasible.

The final question in this miscellaneous category asked respondents to rank order, from most important to least important, a list of reasons which have been frequently given by Air Force personnel as reasons for leaving the Air Force.

The 1980 and 1981 rankings were:

<u>Factors</u>	<u>1980</u>	<u>1981</u>
Inadequate pay and allowances.	1	1
Job-caused family considerations	2	2
Civilian job opportunities	3	6
Security of future uncertain	4	5
Air Force management policies.	5	4
Lack of control over assignments	6	3
Lack of enlightened leadership	7	7
Work schedule.	8	8

The only significant change was the move of "Lack of control over assignments" from number 6 in 1980 to number 3 in 1981. There is little value in the listing as it pertains to the purpose of this survey, because it does not reflect how the respondents personally viewed each item as affecting their own circumstances. Rather it represents how one group (the class of 1981) felt about the opinions of another group (all others exiting the Air Force).

Category Summary

It is encouraging to note from the survey that the three most positive factors in an Air Force career are the job, the

people, and the nation. These results certainly indicate that top-quality senior officers in the Air Force like what they are doing for a living as well as whom they are doing it with and for. They also receive a tremendous amount of satisfaction in return.

Conversely, these same officers do not feel that they are receiving proper financial compensation for their chosen line of work. They are concerned about many of the management and policy issues they face on a daily basis. And they view the inherent instability of Air Force life and its impact on families as detracting factors.

It seems obvious at this writing that for the class of 1981, the enduring features of an Air Force career--job satisfaction, personal associations and the sense of importance of the job--far outweigh the negative factors. Moreover, the negative factors are being treated both internally and externally. Many new initiatives are underway including pay increases, higher travel allowances, bonuses for pilots and scientific and technical officers, MWR's "Year of the Family," and the new Office for Family Matters in the Pentagon, to name a few. These efforts should combine to remove the dissatisfactions and create a very optimistic outlook for the decade of the 1980s.

CHAPTER X

CONCLUSION

The last several paragraphs of the preceding chapter more than adequately summarize the results of this survey as seen by this author. In one sentence, the retention outlook for high-quality senior officers, as represented by the AWC class of 1981, is more positive and healthier than that reported for the AWC class of 1980. This improvement is a tribute to the efforts of the senior leadership of not only the Air Force but of all the military services. We are beginning to turn the corner on the enormous retention problem which has been plaguing the Air Force, not just at the junior-officer level but at the senior level as well, and we seem to be overcoming many of the negative attitudes which have prevailed during the last several years.

Hard evidence of this improvement comes from three sources. First and foremost are the results of this survey, most particularly the shifts in opinion about leadership recorded in chapter VI and the healthy career intentions outlook seen in chapter VIII. The second is a news summary from the February 1981 Air Force magazine which stated that:

Retention of USAF pilots and navigators improved considerably last year, but officials say rated officer retention "remains one of the most important readiness issues of the 80s."

A related development pleasing authorities is the growing number of flyers delaying separation. These extensions "indicate that more pilots and navigators

will continue to remain on board if pay and entitlements continue to move toward compatibility with the civilian counterparts," Hq USAF said. (5:108)

Finally, Air Force officials have on two recent occasions revised downward the expected number of voluntary officer retirements projected for fiscal year 1981. The original estimate for all officer grades, colonel and below, was 3000. This figure was then reduced to 2600, and most recently to 2400. (2) The long-term effect of these positive signs remains to be seen. There is no doubt, however, that the retention outlook among high-quality senior officers, as represented by the Air War College class of 1981, is healthier and more promising than that indicated by the survey of the class of 1980.

APPENDIX A

ANNOTATED SURVEY

For questions 115 through 163 indicate the DEGREE to which you AGREE or DISAGREE with the statement presented by using the following scale:

	A	B	C	D
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
115. Overall, an Air Force career has had a positive effect on my family. (Mark answer E if single)				
80- (23.9)	(51.3)	(17.9)	(6.8)	
81- (20.1)	(62.9)	(11.9)	(2.2)	
116. I receive appropriate increases in benefits and privileges with each increase in rank.				
80- (1.7)	(26.7)	(51.7)	(19.8)	
81- (2.9)	(42.9)	(40.0)	(14.3)	
117. Full dental care for dependents would be a valuable incentive in retaining quality personnel.				
80- (34.5)	(50.4)	(14.3)	(0.8)	
81- (50.0)	(40.0)	(10.0)	-	
118. My career goal is to make O-6 and retire while I am still young enough to compete in the civilian job market.				
80- (19.0)	(32.8)	(41.4)	(6.9)	
81- (14.5)	(28.3)	(42.8)	(14.5)	
119. Senior leaders in the Air Force are well aware of the depth and seriousness of the Air Force retention problem.				
80- (5.1)	(42.4)	(36.4)	(16.1)	
81- (18.6)	(56.4)	(21.4)	(3.6)	
120. I am more inclined to remain on active duty until mandatory retirement than I was five years ago.				
80- (2.5)	(22.7)	(40.3)	(34.5)	
81- (6.4)	(30.7)	(41.4)	(21.4)	
121. The efforts of Air Force senior leadership to improve Air Force life are being frustrated by Congress and the Executive Branch.				
80- (23.3)	(63.8)	(12.1)	(0.9)	
81- (11.4)	(58.6)	(27.9)	(2.1)	
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE

	A	B	C	D
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
122. Air Force retention problems are more talk than fact.				
80-	(0.0)	(6.7)	(53.8)	(39.5)
81-	(1.4)	(4.3)	(40.0)	(54.3)
123. I have found it relatively easy to motivate NCOs to stay on for a full Air Force career.				
80-	(0.9)	(20.4)	(63.7)	(15.0)
81-	(0.0)	(15.1)	(63.3)	(21.6)
124. It is not hard to save money on my Air Force income.				
Not asked in 1980.				
81-	(4.3)	(19.7)	(41.0)	(41.0)
125. The issue of centralized or decentralized management is one that can be resolved internally by the Air Force.				
80-	(11.1)	(51.3)	(29.9)	(7.7)
81-	(16.8)	(54.2)	(26.3)	(2.9)
126. I am frustrated by the actions of senior Air Force leadership.				
80-	(16.1)	(43.2)	(39.0)	(1.7)
81-	(8.6)	(40.7)	(48.6)	(2.1)
127. There is adequate compensation, in terms of total pay and benefits, for the inherent risks and hardships of an Air Force career.				
80-	(0.0)	(10.0)	(42.5)	(47.5)
81-	(1.4)	(8.6)	(51.4)	(38.6)
128. Air Force senior leadership is taking positive and effective action to improve the quality of life in the Air Force.				
80-	(0.0)	(31.1)	(57.1)	(11.8)
81-	(5.0)	(71.4)	(19.3)	(4.3)
129. It is necessary, or will be in the immediate future, for my wife to work at least part time to maintain the living standard we desire for our family. (Mark answer E if single)				
80-	(30.4)	(46.1)	(20.0)	(3.5)
81-	(26.5)	(39.4)	(29.5)	(4.5)
	A	B	C	D
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE

	A	B	C	D
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
130. I have always been inclined to remain on active duty until mandatory retirement.				
Not asked in 1980.				
81-	(6.5)	(18.7)	(51.8)	(23.0)
131. The social/camaraderie aspects of Air Force life are better than they were 10 years ago.				
Not asked in 1980.				
81-	(0.0)	(7.2)	(59.0)	(33.8)
132. I would encourage my son(s) or daughter(s) to consider an Air Force career. (Mark answer E if you have no children)				
80-	(3.4)	(41.5)	(41.5)	(13.6)
81-	(3.9)	(50.8)	(30.5)	(14.8)
133. I consider Air Force medical care to be one of the major benefits in an Air Force career.				
80-	(17.6)	(50.4)	(23.5)	(8.4)
81-	(22.1)	(40.7)	(25.7)	(11.4)
134. Another promotion would have a positive impact on my career intentions.				
80-	(31.7)	(44.2)	(20.0)	(4.2)
81-	(43.6)	(38.6)	(15.7)	(2.1)
135. In my most recent assignments, I have been given authority commensurate with my rank and responsibility.				
80-	(21.7)	(56.7)	(15.8)	(5.8)
81-	(25.7)	(49.3)	(17.9)	(7.1)
136. Considering that the Air Force has become more difficult to manage in a period of rapid technological change and severe budget constraints, there is a need for more centralization in Air Force management.				
80-	(0.8)	(4.2)	(63.0)	(31.9)
81-	(0.0)	(10.0)	(60.7)	(29.3)
137. I have found it relatively easy to motivate young officers to make the Air Force a career.				
80-	(0.0)	(12.6)	(62.2)	(25.2)
81-	(1.4)	(13.6)	(67.1)	(17.9)
	A	B	C	D
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE

	A	B	C	D
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
138. In my last job, my supervisors actively emphasized the social/camaraderie aspects of Air Force life.				
Not asked in 1980.				
81-	(9.3)	(40.7)	(40.0)	(10.0)
139. Looking back, I made a mistake not separating from the Air Force at some earlier point in my career.				
80-	(5.1)	(11.9)	(61.9)	(21.2)
81-	(5.0)	(9.3)	(55.7)	(30.0)
140. Air Force leaders are receptive to suggestions from the squadron and wing levels concerning retention issues.				
80-	(0.9)	(49.6)	(38.9)	(10.6)
81-	(4.4)	(58.4)	(30.7)	(6.6)
141. I am more inclined to retire when first eligible than I was five years ago.				
80-	(29.5)	(33.9)	(43.2)	(3.4)
81-	(14.3)	(29.3)	(48.6)	(7.9)
142. I would prefer more assignment stability than I have had.				
80-	(13.6)	(42.4)	(42.4)	(1.7)
81-	(16.4)	(36.4)	(45.0)	(2.1)
143. Benefits offered by the Air Force are just as attractive as they used to be.				
80-	(0.8)	(1.7)	(37.5)	(60.0)
81-	(1.4)	(4.3)	(41.4)	(52.9)
144. My family favors my continuing an Air Force career. (Mark answer E if single)				
80-	(8.0)	(50.0)	(27.7)	(14.3)
81-	(7.5)	(60.2)	(24.8)	(7.5)
145. If I had a choice, I would prefer to provide for my family's medical and dental care by contributing under a group plan. (Mark answer E if single)				
80-	(14.2)	(31.0)	(39.8)	(15.0)
81-	(11.4)	(26.5)	(39.4)	(22.7)
	A	B	C	D
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE

	A	B	C	D
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
146. A strong social/camaraderie atmosphere in an organization is a major asset to retention.				
Not asked in 1980.				
81-	(30.7)	(53.6)	(15.0)	(0.7)
147. While my family has had to make some sacrifices for my career, they were no greater than those required for comparable advancement in industry. (Mark answer E if single)				
80-	(4.3)	(18.8)	(46.2)	(30.8)
81-	(7.5)	(27.6)	(38.1)	(26.9)
148. Increased assignment stability would have a positive effect on Air Force organizations and personnel.				
80-	(15.7)	(69.6)	(13.9)	(0.9)
81-	(20.0)	(68.6)	(11.4)	(0.0)
149. Promotion to O-7 is well worth the time and effort to achieve it.				
80-	(2.6)	(38.5)	(47.9)	(11.1)
81-	(9.4)	(36.2)	(43.5)	(10.9)
150. The current institutional environment in the Air Force is conducive to developing military professionals.				
80-	(0.8)	(24.6)	(62.7)	(11.9)
81-	(1.4)	(37.1)	(52.1)	(9.3)
151. The Air Force does not have a retention problem in its senior officer (Lt Col and above) ranks.				
Not asked in 1980.				
81-	(2.9)	(13.7)	(53.2)	(30.2)
152. Most career irritants can be resolved by effective leadership at the wing level and below.				
80-	(2.5)	(14.2)	(63.3)	(20.0)
81-	(2.2)	(19.4)	(51.8)	(26.6)
153. An Air Force career is an appealing employment option in society today.				
80-	(0.0)	(25.8)	(62.3)	(11.7)
81-	(1.4)	(29.3)	(55.2)	(13.6)
154. I have always been inclined to retire when first eligible.				
Not asked in 1980.				
81-	(1.4)	(18.6)	(62.0)	(17.1)
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE

	A	B	C	D
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
155. My overall impression of Air Force general officers is that they provide positive and effective leadership.				
80-	(0.0)	(48.3)	(44.0)	(7.7)
81-	(3.6)	(70.7)	(20.7)	(5.0)
156. During my career, the best organizations I've worked in were those with high esprit and morale, and a strong sense of camaraderie, both on and off the job.				
Not asked in 1980.				
81-	(47.1)	(44.3)	(8.6)	(0.0)
157. I would go PCS unaccompanied rather than disrupt my children's education and/or my wife's career. (Mark answer E if single)				
80-	(9.6)	(35.7)	(44.3)	(10.4)
81-	(16.7)	(28.0)	(44.7)	(10.6)
158. My overall pay and benefits, including the present retirement system, are comparable to those received for similar responsibility and experience in private industry.				
80-	(0.0)	(9.2)	(43.3)	(47.5)
81-	(0.7)	(11.4)	(40.7)	(47.1)
159. Most of the centralization and micro-management in the Air Force today is the result of demands for information by Congress and the Executive Branch.				
80-	(25.4)	(40.7)	(29.7)	(4.2)
81-	(5.8)	(42.4)	(40.3)	(11.5)
160. During the past decade and when stationed in the US, my wife and I have turned more and more to civilian friends and the civilian community for our social life.				
Not asked in 1980.				
81-	(14.7)	(36.0)	(41.2)	(8.1)
161. Retention of quality people is a serious problem in the Air Force today.				
80-	(53.8)	(42.0)	(4.2)	(0.0)
81-	(59.3) A	(37.9) B	(2.1) C	(0.7) D
	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE

A	B	C	D
STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE

162. My own motivation towards an Air Force career has made it easy for me to promote an Air Force career for others.

80- (4.3) (50.9) (41.4) (3.4)

81- (11.4) (52.1) (34.3) (2.1)

163. Recent retention problems are more the result of a temporarily attractive job market than a reflection of internal problems within the Air Force.

80- (0.0) (12.7) (63.6) (23.7)

81- (2.1) (12.9) (59.3) (25.7)

For questions 164 through 188 select the single response you consider most appropriate and mark the corresponding letter on the answer sheet.

164. Which of the following best describes your career intentions?

- | | | |
|------------------------|--|------------------------|
| ⁸⁰
(5.1) | A. I will stay on active duty as long as I can. | ⁸¹
(7.9) |
| (17.9) | B. I am undecided, but I will probably stay on active duty as long as I can. | (19.3) |
| (48.7) | C. I am undecided, but I will probably remain on active duty past initial retirement eligibility, but will retire prior to mandatory retirement. | (52.1) |
| (17.1) | D. I am undecided, but I will probably retire at 20 years or upon completion of my present commitment. | (14.3) |
| (11.1) | E. I will retire at 20 years or upon completion of my present commitment. | (6.4) |

165. My career goal is to achieve the grade of:

- | | | |
|-------------------------------|---|------------------------|
| A. Lieutenant Colonel | (only ⁸⁰
G.C.
pct. avail
from 1980) | ⁸¹
(0.7) |
| B. Colonel | | (38.6) |
| C. General officer | (55.6) | (47.1) |
| D. I'm not sure at this time. | | (13.6) |

166. Which of the following would you prefer if you were a pilot or navigator in a flying job?
- A. A 20 percent increase in flying hours 27.8 (of those rated)
 - B. A 20 percent increase in pay and allowances (including flight pay) 72.2% (of those rated)
 - C. I am nonrated.
167. Which of the words listed below most appropriately fits in the blank to describe your situation?
- "I am _____ concerned about making financial ends meet"
- A. Always (23.6)
 - B. Usually (30.7)
 - C. Sometimes (32.1)
 - D. Seldom (11.4)
 - E. Never (2.1)
168. Which of the phrases listed below best describes how you personally view the recent increases in pay and allowances?
- A. Far more than enough (0)
 - B. More than enough (0.7)
 - C. About right (16.4)
 - D. Less than adequate (66.4)
 - E. Far less than adequate (16.4)
169. Which of the phrases listed below best describes how you think the recent increases in pay and allowances will aid in improving Air Force-wide retention?
- A. Help a lot (5.0)
 - B. Help some (70.7)
 - C. Neutral impact (10.0)
 - D. No help; it will take some more (11.4)
 - E. No help; a lot more is necessary. (2.9)

170. Assuming there is a trade-off between the following items, which do you think is most important to the Air Force?

A. Increasing the retention of experienced senior officers.
(22.9)

B. Maintaining a healthy promotion opportunity and flow through the field grade ranks.
(77.1)

171. In your opinion, which of the following has the most bearing positive or negative, on retention.

A. External factors, such as the civilian job market.
(25.0)

B. Internal factors, such as Air Force policies and procedures.
(75.0)

172. Not counting your military pay and allowances, which of the following best describes the amount of before taxes income which you and/or your wife receive? Be sure to include interest, dividends, investment income, other wages, etc. (Note: if your wife is here with you and she worked before you came to school and will work at your next duty location, please include her past or projected earnings even though she may not be working while she is here.)

A. Less than \$1,000 annually (15.7)

B. \$1,000 to \$3,000 annually (18.6)

C. \$3,001 to \$5,000 annually (9.3)

D. \$5,001 to \$10,000 annually (15.7)

E. \$10,001 to \$20,000 annually (8.6)

F. \$20,001 to \$30,000 annually (10.7)

G. Greater than \$30,000 annually (21.4)

173. What is your current grade?

	<u>80</u>	<u>81</u>	
A. Colonel	(39.6)	(36.4)	(45.7)
B. Lt Col (Colonel selectee)		(9.3)	
C. Lt Colonel	(60.3)	(54.3)	

174. What is your date of rank, year only? (data not used in survey analysis)

80- not asked

A. 1976 B. 1977 C. 1978 D. 1979 E. 1980

175. What is your present age?

A. 36-39	B. 40-42	C. 43-45	D. 46-49	E. ?
80- (20.6)	(60.3)	(15.7)	(3.3)	
81- (25.0)	(47.1)	(17.9)	(7.9)	(2.1)

176. How many years of service do you have for retirement?

<u>80</u> (18.1)	<u>81</u> (20.0)	A. 21 or more	C. 16-18	<u>80</u> (47.9)	<u>81</u> (47.9)
(29.7)	(25.7)	B. 19-20	D. 15 or less	(4.1)	(6.4)

177. In what year were you commissioned?

1981 data only

A. 1959 (9.4)	C. 1961 (18.7)	E. 1963 (19.4)	G. 1965 (3.6)	I. Other (0.7)
B. 1960 (15.8)	D. 1962 (14.4)	F. 1964 (14.4)	H. 1966 (2.2)	

178. What is your aeronautical rating?

80- (41.3)	(20.6)	(38.0)
A. Pilot	B. Navigator	C. Nonrated
81- (45.0)	(19.3)	(35.7)

179. What is your source of commission?

<u>80</u> (47.1)	<u>81</u> (55.0)	A. ROTC	C. Service academy	<u>80</u> (14.0)	<u>81</u> (10.0)
(17.3)	(15.7)	B. OTS	D. Other.	(21.5)	(18.6)

180 through 187. The following are often given as reasons for separating from the Air Force. From your own experience in dealing with Air Force personnel and working the retention problem, rank these reasons from the most important/frequent (1) to the least important/frequent (8). Put the letter of the most important factor in answer number 180. Continue down the list until the least important factor is in answer number 187

A. Lack of enlightened leadership	<u>80</u> 7	<u>81</u> 7
B. Air Force management policies	5	4
C. Inadequate pay and allowances	1	1
D. Security of future uncertain	4	5
E. Lack of control over assignments	6	3
F. Job-caused family considerations	2	2
G. Work schedule	8	8
H. Civilian job opportunities	3	6

188. What should be the active duty service commitment for promotion to colonel?

Not asked in 1980

A. None (8.1)	C. 2 years (57.4)	E. 4 years (6.6)
B. 1 year (12.5)	D. 3 years (14.0)	F. 5 or more years (1.5)

Questions 189 through 192 require written answers. After you have completed this portion, remove this last page and place it, along with the scored answer sheet into the large envelope which was used to forward the survey to you. Place the large envelope containing these two items in the student evaluation box in the lounge area. Please do not fold or staple the scored answer sheet.

189. What percentage increase would you apply to your pay and allowances in 1981, over and above a cost of living increase, to provide a strong incentive for career officers to remain on active duty until within two years of mandatory retirement? (Note: consider your tax bracket in formulating your answer.)

	17.4 percent (mean)
	14.5 percent (median)
_____ percent	20.0 percent (mode)

190. What, for you, are the three most positive factors in an Air Force career?

1. The job, the work (includes eight sub-categories)

2. The people (In the 1980 survey, numbers two and three were reversed)

3. Service to nation

191. What, for you, are the three most negative factors in an Air Force career?

1. Financial matters (includes three sub-categories)

2. Management/Leadership (includes three sub-categories)

3. Instability (includes two sub-categories)

In 1980, instability was #2 and benefits was #3

192. What is the single most important issue facing the Air Force today?

Retention (in both 1980 and 1981)

Thank you very much for taking the time to complete this questionnaire. Remember, place both this last page and the scored answer sheet into the large envelope and put the envelope in the student evaluation box in the lounge.

APPENDIX B

SPSS t-test RESULTS

GROUP 1 - TYPE	EQ	1.	SEPARATE VARIANCE ESTIMATE				DEGREES OF 2-TAIL	
GROUP 2 - TYPE	EQ	2.	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T VALUE	FREEDOM PROB.
Q115 POSITIVE FAMILY EFFECT								
GROUP 1	117	2.0769		0.832	0.077			
GROUP 2	134	1.9627		0.642	0.055		1.20	216.83 0.230
Q116 BENES INCREASE WITH RANK								
GROUP 1	116	2.8966		0.727	0.067			
GROUP 2	140	2.6571		0.756	0.064		2.58	248.47 0.011
Q117 DEPENDENT DENTAL CARE								
GROUP 1	119	1.8151		0.701	0.064			
GROUP 2	140	1.6000		0.666	0.056		2.52	245.73 0.012
Q118 0-6 CAREER GOAL								
GROUP 1	116	2.3621		0.869	0.081			
GROUP 2	138	2.5725		0.911	0.078		-1.88	248.01 0.061 ✓
Q119 RETENTION PROBLEM								
GROUP 1	118	2.6356		0.813	0.075			
GROUP 2	140	2.1000		0.733	0.062		5.51	238.08 0.000
Q120 MAANDATORY RETIREMENT								
GROUP 1	119	3.0672		0.821	0.075			
GROUP 2	140	2.7786		0.857	0.072		2.76	253.37 0.006
Q121 FRUSTATED BY CONGRESS								
GROUP 1	116	1.9052		0.618	0.057			
GROUP 2	140	2.2071		0.662	0.056		-3.77	250.39 0.000

GROUP 1 - TYPE EQ 1.
GROUP 2 - TYPE EQ 2.

VARIABLE NUMBER OF CASES MEAN STANDARD DEVIATION STANDARD ERROR

Q122 RETENTION MORE TALK
GROUP 1 119 3.3277 0.598 0.055
GROUP 2 140 3.4714 0.651 0.055

Q123 MOTIVATE NCOS
GROUP 1 113 2.9292 0.623 0.059
GROUP 2 139 3.0647 0.604 0.051

Q124 SAVE MONEY
GROUP 1 0 0. 0.
GROUP 2 139 3.1871 0.830 0.070

Q125 CENTRALIZED MANAGEMENT
GROUP 1 117 2.3419 0.779 0.072
GROUP 2 137 2.1533 0.726 0.062

Q126 FRUSTRATED
GROUP 1 118 2.2627 0.745 0.069
GROUP 2 140 2.4429 0.681 0.058

Q127 ADEQUATE COMPENSATION
GROUP 1 120 3.3750 0.662 0.060
GROUP 2 140 3.2714 0.677 0.057

Q128 SENIOR LEADERSHIP IMPROVES LIFE
GROUP 1 119 2.8067 0.628 0.058
GROUP 2 140 2.2286 0.604 0.051

SEPARATE VARIANCE ESTIMATE

T DEGREES OF 2-TAIL
VALUE FREEDOM PROB.

-1.85 255.42 0.065

-1.74 236.61 0.083

-45.25 138.00 0.000

1.98 239.63 0.048

-2.01 239.88 0.045

1.24 253.55 0.214

7.51 246.88 0.000

GROUP 1 - TYPE EQ 2.
GROUP 2 - TYPE EQ 2.

SEPARATE VARIANCE ESTIMATE

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
Q129 WIFE WORKS							
GROUP 1	115	1.9652	0.803	0.075	-1.47	243.57	0.142
GROUP 2	132	2.1212	0.856	0.075			
Q130 MANDATORY REQUIREMENT							
GROUP 1	0	0.	0.	0.	-41.85	138.00	0.000
GROUP 2	139	2.9137	0.821	0.070			
Q131 SOCIAL ASPECTS							
GROUP 1	0	0.	0.	0.	-65.88	138.00	0.000
GROUP 2	139	3.2662	0.585	0.050			
Q132 ENCOURAGE KIDS							
GROUP 1	118	2.6525	0.755	0.070	0.91	243.70	0.362
GROUP 2	128	2.5625	0.791	0.070			
Q133 MEDICAL CARE							
GROUP 1	119	2.2269	0.838	0.077	-0.34	256.23	0.734
GROUP 2	140	2.2643	0.934	0.079			
Q134 PROMOTION IMPACT							
GROUP 1	120	1.9667	0.829	0.076	2.00	248.02	0.046
GROUP 2	140	1.7643	0.792	0.067			
Q135 AUTHORITY COMMENSURATE WITH RANK							
GROUP 1	120	2.0583	0.781	0.071	-0.06	256.73	0.953
GROUP 2	140	2.0643	0.850	0.072			

GROUP 1 - TYPE		EQ		1.		2.		SEPARATE VARIANCE ESTIMATE															
GROUP 2 - TYPE		EQ						VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.								
Q136 MORE CENTRALIZATION																							
GROUP 1		119		3.2605		0.574		0.053				0.93		253.22 0.355									
GROUP 2		140		3.1929		0.599		0.051															
Q137 MOTIVATE YOUNG OFFICERS																							
GROUP 1		119		3.1261		0.604		0.055															
GROUP 2		140		3.0143		0.611		0.052				1.48		251.21 0.141									
Q138 SUPERVISORS EMPHASIZE SOCIAL																							
GROUP 1		0		0.		0.		0.															
GROUP 2		140		2.5071		0.800		0.068				-37.07		139.00 0.000									
Q139 EARLIER RETIREMENT																							
GROUP 1		118		2.9915		0.734		0.068															
GROUP 2		140		3.1071		0.765		0.065				-1.24		251.75 0.217									
Q140 RECEPTIVE TO SUGGESTIONS																							
GROUP 1		113		2.5929		0.690		0.065															
GROUP 2		137		2.3942		0.679		0.058				2.28		237.61 0.023									
Q141 RETIRE WHEN ELIGIBLE																							
GROUP 1		118		2.3051		0.822		0.076															
GROUP 2		140		2.5000		0.835		0.071				-1.88		249.96 0.061									
Q142 ASSIGNMENT STABILITY																							
GROUP 1		118		2.3220		0.727		0.067															
GROUP 2		140		2.3286		0.772		0.065				-0.07		252.89 0.944									

GROUP 1 - TYPE	EQ	1.	SEPARATE VARIANCE ESTIMATE					
GROUP 2 - TYPE	EQ	2.						
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	
Q143 AF BENES								
GROUP 1	120	3.5667	0.576	0.053	1.44	257.71	5.151	
GROUP 2	140	3.4571	0.650	0.055				
Q144 FAMILY CONTINUE CAREER								
GROUP 1	112	2.4821	0.838	0.079	1.57	220.89	0.117	
GROUP 2	133	2.3233	0.724	0.063				
Q145 MEDICAL AND DENTAL INSURANCE								
GROUP 1	113	2.5575	0.916	0.086	-1.49	238.96	0.137	
GROUP 2	132	2.7348	0.940	0.082				
Q146 SOCIAL FOR RETENTION								
GROUP 1	0	0.	0.	0.	-32.10	139.00	0.000	
GROUP 2	140	1.8571	0.685	0.058				
Q147 FAMILY SACRIFICES								
GROUP 1	117	3.0342	0.819	0.076	1.75	248.73	0.081	
GROUP 2	134	2.8433	0.908	0.078				
Q148 ASSIGNMENT STABILITY								
GROUP 1	115	2.0000	0.577	0.054	1.20	239.74	0.232	
GROUP 2	140	1.9143	0.556	0.047				
Q149 PROMOTION TO O-7								
GROUP 1	117	2.6752	0.705	0.065	1.24	252.83	0.218	
GROUP 2	138	2.5580	0.811	0.069				

GROUP 1 - TYPE	EQ	1.	SEPARATE VARIANCE ESTIMATE			
GROUP 2 - TYPE	EQ	2.				
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	VALUE	DEGREES OF FREEDOM
Q150	PROFESSIONALISM					
GROUP 1	118	2.8559	0.617	0.057		
GROUP 2	140	2.6929	0.656	0.055	2.05	252.89
Q151	RETENTION PROB WITH SR OFFICERS					
GROUP 1	0	0.	0.	0.		
GROUP 2	139	3.1079	0.739	0.063	-49.58	138.00
Q152	CAREER IRRITANTS					
GROUP 1	120	3.0083	0.667	0.061		
GROUP 2	139	3.0288	0.742	0.063	-0.23	256.55
Q153	APPEALING CAREER					
GROUP 1	120	2.8583	0.598	0.055		
GROUP 2	140	2.8143	0.674	0.057	0.56	257.68
Q154	RETIRE					
GROUP 1	0	0.	0.	0.		
GROUP 2	140	2.9571	0.645	0.054	-54.29	139.00
Q155	IMPRESSION OF GENERALS					
GROUP 1	116	2.5948	0.632	0.059		
GROUP 2	140	2.2714	0.610	0.052	4.14	241.78
Q156	BEST ORGANIZATION					
GROUP 1	0	0.	0.	0.		
GROUP 2	140	1.6143	0.641	0.054	-29.78	139.00

GROUP 1 - TYPE		EQ	1.		SEPARATE VARIANCE ESTIMATE					
GROUP 2 - TYPE		EQ	2.							
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.			
Q157 UNACCOMPANIED PCS										
GROUP 1	115	2.5565	0.808	0.075	0.59	244.69	0.555			
GROUP 2	132	2.4924	0.895	0.073						
Q158 PAY COMPARABILITY										
GROUP 1	120	3.3833	0.651	0.059						
GROUP 2	140	3.3429	0.707	0.060	0.48	256.70	0.631			
Q159 CENTRALIZATION BY CONGRESS										
GROUP 1	118	2.1271	0.843	0.078						
GROUP 2	139	2.5755	0.771	0.065	-4.42	239.67	0.001			
Q160 CIVILIAN FRIENDS										
GROUP 1	0	0.	0.	0.						
GROUP 2	136	2.4265	0.840	0.072	-33.69	135.00	0.001			
Q161 RETENTION OF QUALITY										
GROUP 1	119	1.5042	0.580	0.053						
GROUP 2	140	1.4429	0.579	0.049	0.85	250.08	0.397			
Q162 OWN MOTIVATION										
GROUP 1	116	2.4397	0.636	0.059						
GROUP 2	140	2.2714	0.687	0.058	2.03	250.86	0.043			
Q163 RETENTION										
GROUP 1	118	3.1102	0.596	0.055						
GROUP 2	140	3.0857	0.684	0.058	0.31	255.70	0.754			

GROUP 1 - TYPE		EQ		1.		2.		SEPARATE VARIANCE ESTIMATE		
GROUP 2 - TYPE		EQ								
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.			
Q164 CAREER INTENT										
GROUP 1	117	3.1111	0.998	0.092						
GROUP 2	140	2.9214	0.953	0.081	1.55	242.54	0.123			
Q165 CAREER GOAL										
GROUP 1	115	2.4000	0.825	0.077						
GROUP 2	140	2.7357	0.695	0.059	-3.47	223.47	.001			
Q166 RATING PREFRES										
GROUP 1	0	0.	0.	0.						
GROUP 2	140	2.1786	0.712	0.060	-36.19	139.00	0.000			
Q167 FINANCIAL										
GROUP 1	0	0.	0.	0.						
GROUP 2	140	2.3786	1.035	0.087	-27.19	139.00	0.000			
Q168 PAY INCREASES										
GROUP 1	0	0.	0.	0.						
GROUP 2	140	3.9857	0.600	0.051	-78.65	139.00	0.000			
Q169 PAY VS RETENTION										
GROUP 1	0	0.	0.	0.						
GROUP 2	140	2.3643	0.858	0.073	-32.59	139.00	0.000			
Q170 RETENTION VS PROMOTION										
GROUP 1	0	0.	0.	0.						
GROUP 2	140	1.7714	0.421	0.036	-49.74	139.00	0.000			

APPENDIX C

FINANCIAL CONSIDERATIONS CROSSTABS

***** C R O S S T A B U L A T I O N O F *****
 Q173 GRADE BY Q124 SAVE MONEY ***** PAGE

Q124				
COUNT	B	C	D	ROW TOTAL
ROW PCT IA				
COL PCT I	1.1	2.1	3.1	4.1
TOT PCT I	1.1	2.1	3.1	4.1
Q173				
A	1.1	0.1	10.1	32.1
	0.1	15.6	50.0	34.4
	0.1	52.6	56.1	38.6
	0.1	7.2	23.0	15.8
C	3.1	6.1	9.1	25.1
	8.0	12.0	33.3	46.7
	100.0	47.4	43.9	61.4
	4.3	6.5	18.0	25.2
COLUMN TOTAL	6	19	57	139
	4.3	13.7	41.0	100.0

CHI SQUARE = 9.06345 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = 0.0285
 CRAMER'S V = 0.25535
 CONTINGENCY COEFFICIENT = 0.24741
 LAMBDA (ASYMMETRIC) = 0.12500 WITH Q173 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.12329
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.05918 WITH Q173 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.04466
 KENDALL'S TAU B = 0.05494 SIGNIFICANCE = 0.2471
 KENDALL'S TAU C = 0.06211 SIGNIFICANCE = 0.2471
 GAMMA = 0.09554
 SOMERS'S D (ASYMMETRIC) = 0.04829 WITH Q173 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = 0.05448
 ETA = 0.25535 WITH Q173 DEPENDENT.
 PEARSON'S R = -0.00050 SIGNIFICANCE = 0.4977

NUMBER OF MISSING OBSERVATIONS = 1

***** Q173 ***** GRADE *****
***** CRUSTAL T I U N U F *****
***** BY U167 ***** FINANCIAL ***** PAGE *****

[illegible]

CHI SQUARE = 24.79574 WITH 4 DEGREES OF FREEDOM SIGNIFICANCE = 0.0001
CRAMER'S V = 0.42085

CONTINGENCY COEFFICIENT = 0.38790

LAMBDA (ASYMMETRIC) = 0.32813 WITH Q173
DEPENDENT.

LAMBDA (SYMMETRIC) = 0.20755

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.14108 WITH Q173
DEPENDENT. = 0.06957 WITH Q167

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.09318

KENDALL'S TAU B = -0.29059 SIGNIFICANCE = 0.0001

KENDALL'S TAU C = -0.35061
SIGNIFICANCE = 0.0001

GAMMA = -0.46059

SOMERS'S D (ASYMMETRIC) = -0.23908 WITH Q173
DEPENDENT.
= -0.35321 WITH Q167
DEPENDENT.

SOMERS'S D (SYMMETRIC) = -0.28515

ETA = 0.42085 WITH Q173 DEPENDENT.

PEARSON'S R = -0.28876 SIGNIFICANCE = 0.0003

FILE LEE (CREATION DATE = 02-10-81)

 Q173 GRADE ***** CRUSSTABULATION OF *****
 ***** BY Q172 ***** EXTRA INCOME ***** PAGE

Q172

COUNT		B		C		D		E		F		G		ROW TOTAL
ROW	PCT	IA												
COL	PCT													
TOT	PCT													
Q173			1.1	2.1	3.1	4.1	5.1	6.1	7.1					
A	1.	8	1	11	7	14	1	3	1	3	1	18	1	64
		12.5	1	17.2	1	10.9	1	21.9	1	4.7	1	28.1	1	45.7
		36.4	1	42.3	1	53.8	1	63.6	1	25.0	1	20.0	1	
		5.7	1	7.9	1	5.0	1	10.0	1	2.1	1	12.9	1	
C	3.	14	1	15	1	6	1	8	1	9	1	12	1	76
		18.4	1	19.7	1	7.9	1	10.5	1	11.8	1	15.8	1	54.3
		63.6	1	57.7	1	46.2	1	36.4	1	75.0	1	80.0	1	
		10.0	1	10.7	1	4.3	1	5.7	1	6.4	1	8.6	1	
COLUMN		22		26		13		22		12		15		140
TOTAL		15.7		18.6		9.3		15.7		8.6		10.7		100.0

CHI SQUARE = 12.62925 WITH 6 DEGREES OF FREEDOM SIGNIFICANCE = 0.0493
 CRAMER'S V = 0.30035
 CONTINGENCY COEFFICIENT = 0.28765
 LAMBDA (ASYMMETRIC) = 0.20313 WITH Q173 DEPENDENT. = 0.02727 WITH Q172 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.09195
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.06791 WITH Q173 DEPENDENT. = 0.02471 WITH Q172
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.03623
 KENDALL'S TAU B = -0.06532 SIGNIFICANCE = 0.1901
 KENDALL'S TAU C = -0.08449 SIGNIFICANCE = 0.1901
 GAMMA = -0.09966
 SOMERS'S D (ASYMMETRIC) = -0.05013 WITH Q173 DEPENDENT. = -0.08512 WITH Q172 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = -0.06310
 ETA = 0.30035 WITH Q173 DEPENDENT. = 0.06316 WITH Q172 DEPENDENT.
 PEARSON'S R = -0.06316 SIGNIFICANCE = 0.2292

CROSS TABULATION OF PAY INCREASES BY Q168

Q168

ROW	COUNT	COL PCT	ROW PCT	TOTAL	C	D	E	ROW TOTAL
Q175								
1.	1.	0.	0.	35	2.1	3.1	4.1	5.1
A	1.	0.	0.	25.0	0.	7.	19.	9.
	1.	0.	0.		20.0	54.3	25.7	25.0
	1.	0.	0.		30.4	20.4	39.1	
	1.	0.	0.		5.0	13.6	6.4	
2.	1.	1.	1.	66	1.	8.	49.	8.
B	1.	1.5	1.	47.1	12.1	74.2	12.1	12.1
	1.	100.0	1.		34.8	52.7	34.8	
	1.	0.7	1.		5.7	35.0	5.7	
3.	1.	0.	1.	25	1.	1.	19.	5.
C	1.	0.	1.	17.9	4.0	76.0	20.0	20.0
	1.	0.	1.		4.3	20.4	21.7	
	1.	0.	1.		0.7	13.6	3.6	
4.	1.	0.	1.	11	5.	5.	9.1	9.1
D	1.	0.	1.	7.9	45.5	45.5	9.1	9.1
	1.	0.	1.		21.7	5.4	4.3	
	1.	0.	1.		3.6	3.6	0.7	
5.	1.	0.	1.	3	2.	1.	0.	0.
E	1.	0.	1.	2.1	66.7	33.3	0.	0.
	1.	0.	1.		8.7	1.1	0.	
	1.	0.	1.		1.4	0.7	0.	
COLUMN TOTAL	1.	23	93	140	23	66.4	16.4	100.0

CHI SQUARE = 21.32003 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0459

CRAMER'S V = 0.22530

CONTINGENCY COEFFICIENT = 0.36354

LAMBDA (ASYMMETRIC) = 0.01351 WITH Q175 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.01653

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.05395 WITH Q175 DEPENDENT. = 0.07734 WITH Q168

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.06356

KENDALL'S TAU B = -0.09114 SIGNIFICANCE = 0.1138

KENDALL'S TAU C = -0.07102 SIGNIFICANCE = 0.1138

GAMMA = -0.14872

SOMERS'S D (ASYMMETRIC) = -0.10554 WITH Q175 DEPENDENT.

= -0.07871 WITH Q168

DEPENDENT.

Q177	YEAR COMMISSIONED
1967	1967
1968	1968
1969	1969
1970	1970
1971	1971
1972	1972
1973	1973
1974	1974
1975	1975
1976	1976
1977	1977
1978	1978
1979	1979
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2010	2010
2011	2011
2012	2012
2013	2013
2014	2014
2015	2015
2016	2016
2017	2017
2018	2018
2019	2019
2020	2020
2021	2021
2022	2022
2023	2023
2024	2024
2025	2025
2026	2026
2027	2027
2028	2028
2029	2029
2030	2030
2031	2031
2032	2032
2033	2033
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2097	2097
2098	2098
2099	2099
2100	2100
2101	2101
2102	2102
2103	2103
2104	2104
2105	2105
2106	2106
2107	2107
2108	2108
2109	2109
2110	2110
2111	2111
2112	2112
2113	2113
2114	2114
2115	2115
2116	2116

BY Q168 PAY INCREASES

PAGE 394d . C

Q168

[illegible]

***** Q178 *****
 ***** RATING *****
 ***** CROSS TABULATION OF *****
 ***** BY J116 *****
 ***** HENES INCREASE WITH T.A.K *****
 ***** PAGE *****

0116

COUNT	ROW PCT	COL PCT	IA	B	C	D	ROW TOTAL
0176							
	1	1	1	2	1	3	4
	2	1	2	24	1	23	14
A	3.2	1	38.1	36.5	1	22.2	45.0
	50.0	1	40.0	41.1	1	70.0	
	1.4	1	17.1	16.4	1	10.0	
	-	-	-	-	-	-	-
	2	1	1	21	1	4	1
B	3.7	1	77.8	14.8	1	3.7	19.3
	25.0	1	35.0	7.1	1	5.0	
	0.7	1	15.0	2.9	1	0.7	
	-	-	-	-	-	-	-
	3	1	1	15	1	29	5
C	2.0	1	30.0	58.0	1	10.0	35.7
	25.0	1	25.0	51.8	1	25.0	
	0.7	1	10.7	20.7	1	3.6	
	-	-	-	-	-	-	-
COLUMN TOTAL	4	2.9	42.9	60	56	20	140
					40.0	14.3	100.0

RAW CHI SQUARE = 24.22354 WITH

CRAMER'S V = 0.29413

CONTINGENCY COEFFICIENT = 0.38406

LAMBDA (ASYMMETRIC) = 0.07792 WITH 0178 DEPENDENT. = 0.17500 WITH 0116 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.12739

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.08347 WITH Q178 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.08096

KENDALL'S TAU B = -0.00628. SIGNIFICANCE = 0.4672

GAMMA = -0.00962

SOMERS'S D (ASYMMETRIC) = -0.00627 WITH Q178 DEPENDENT.
= -0.00629 WITH Q116 DEPENDENT.

SOMERS'S D (SYMMETRIC) = -0.00628

ETA = 0.21329 WITH Q178
DEPENDENT.

PEAKSON'S R = -0.02606 SIGNIFICANCE = 0.3800

FILE LEE (CREATION DATE = 02-12-81)

***** C R O S S T A B U L A T I O N O F *****
 0178 BATING BY 0167 FINANCIAL
 ***** PAGE 1 0

Q167

COUNT									
RD PCT IA B C D E									
COL PCT I									
TOT PCT I									
1 I 2 I 3 I 4 I 5 I									
TOTAL									
0178	1	15	16	21	11	0	1	63	
A	1	23.8	25.4	33.3	17.5	0	1	45.0	
	1	45.5	37.2	46.7	68.8	0	1		
	1	10.7	11.4	15.0	7.9	0	1		
	-1	-1	-1	-1	-1	-1	-1	-1	-1
B	2	7	6	13	1	0	1	27	
	1	25.9	22.2	48.1	3.7	0	1	19.3	
	1	21.2	14.0	28.9	6.3	0	1		
	1	5.0	4.3	9.3	0.7	0	1		
	-1	-1	-1	-1	-1	-1	-1	-1	-1
C	3	11	21	11	4	3	1	50	
	1	22.0	42.0	22.0	8.0	6.0	1	35.7	
	1	33.3	48.8	24.4	25.0	100.0	1		
	1	7.9	15.0	7.9	2.9	2.1	1		
	-1	-1	-1	-1	-1	-1	-1	-1	-1
106	COLUMN	33	43	45	16	3	140		
	TOTAL	23.6	30.7	32.1	11.4	2.1	100.0		

RAW CHI SQUARE = 16.51428 WITH 8 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0356
 CRAMER'S V = 0.24286
 CONTINGENCY COEFFICIENT = 0.32483
 LAMBDA (ASYMMETRIC) = 0.10390 WITH Q178 DEPENDENT. = 0.10526 WITH Q167 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.10465
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.05943 WITH Q178 DEPENDENT. = 0.04433 WITH Q167
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.05082
 KENDALL'S TAU B = -0.06651. SIGNIFICANCE = 0.1838
 GAMMA = -0.09973
 SOMERS'S D (ASYMMETRIC) = -0.06179 WITH Q178 DEPENDENT. = -0.07140 WITH Q167 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = -0.06633
 ETA = 0.2697 WITH Q178 DEPENDENT. = 0.05968 WITH Q167 DEPENDENT.
 PEARSON'S R = -0.04711 SIGNIFICANCE = 0.2902

 Q178 RATING ***** CROSS TABULATION OF *****
 ***** BY Q133 ***** MEDICAL CARE ***** PAGE

		Q133					
		COUNT					ROW
		ROW PCT	A	B	C	D	TOTAL
		COL PCT					
		TOT PCT	1	2	3	4	
Q178		1	14	24	23	2	63
	A	1	22.2	38.1	36.5	3.2	45.0
		1	45.2	42.1	63.9	12.5	
		1	10.0	17.1	16.4	1.4	
B		2	6	12	5	4	27
		1	22.2	44.4	18.5	14.8	19.3
		1	19.4	21.1	13.9	25.0	
		1	4.3	8.6	3.6	2.9	
C		3	11	21	8	10	50
		1	22.0	42.0	16.0	20.0	35.7
		1	35.5	36.8	22.2	62.5	
		1	7.9	15.0	5.7	7.1	
COLUMN		31	57	36	16	140	
TOTAL		22.1	40.7	25.7	11.4	100.0	

107

RAW CHI SQUARE = 12.69309 WITH 6 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0482
 CRAMER'S V = 0.21291
 CONTINGENCY COEFFICIENT = 0.28832
 LAMBDA (ASYMMETRIC) = 0.10390 WITH Q178 DEPENDENT. = 0. WITH Q133 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.05000
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.04654 WITH Q178 DEPENDENT. = 0.03749 WITH Q133
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.04153
 KENDALL'S TAU B = 0.02656. SIGNIFICANCE = 0.3605
 KENDALL'S TAU C = 25.95894. SIGNIFICANCE = 0.0000
 GAMMA = 0.03914
 SOMERS'S D (ASYMMETRIC) = 0.02515 WITH Q178 DEPENDENT. = 0.02806 WITH Q133 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = 0.02652
 ETA = 0.29137 WITH Q178 DEPENDENT. = 0.06415 WITH Q133 DEPENDENT.
 PEARSON'S R = 0.06387 SIGNIFICANCE = 0.2267

***** C R O S S T A B U L A T I O N O F *****
 Q127 ADEQUATE COMPENSATION BY Q143 AF BENES
 ***** PAGE

Q143

COUNT		B				C				D				ROW TOTAL
ROW PCT	IA	B				C				D				
COL PCT	I	B				C				D				
TOT PCT	I	1.1	2.1	3.1	4.1	1.1	2.1	3.1	4.1	1.1	2.1	3.1	4.1	
Q127	1.	0	0	1	1	0	0	1	1	1	1	1	1	2
	A	0.	0.	50.0	50.0	0.	0.	50.0	50.0	1.7	1.4	1.4	1.4	1.4
		0.	0.	0.	0.	0.	0.	0.7	0.7	0.7	0.7	0.7	0.7	
		-	-	-	-	-	-	-	-	-	-	-	-	
	2.	1	1	1	1	1	1	8	2	1	2	1	2	12
	B	8.3	8.3	66.7	16.7	16.7	13.8	5.7	1.4	1.4	1.4	1.4	1.4	8.6
		50.0	16.7	13.8	5.7	5.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	
		0.7	0.7	5.7	1.4	5.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	
	3.	0	5	35	32	0	5	35	32	0	5	35	32	72
	C	0.	6.9	48.6	44.4	0.	6.9	48.6	44.4	0.	6.9	48.6	44.4	51.4
		0.	83.3	60.3	43.2	0.	83.3	60.3	43.2	0.	83.3	60.3	43.2	
		0.	3.6	25.0	22.9	0.	3.6	25.0	22.9	0.	3.6	25.0	22.9	
	4.	1	0	14	39	1	0	14	39	1	0	14	39	54
	D	1.9	0.	25.9	72.2	1.9	0.	25.9	72.2	1.9	0.	25.9	72.2	38.6
		50.0	0.	24.1	52.7	50.0	0.	24.1	52.7	50.0	0.	24.1	52.7	
		0.7	0.	10.0	27.9	0.7	0.	10.0	27.9	0.7	0.	10.0	27.9	
COLUMN		2	6	58	74	2	6	58	74	2	6	58	74	140
TOTAL		1.4	4.3	41.4	52.9	1.4	4.3	41.4	52.9	1.4	4.3	41.4	52.9	100.0

CHI SQUARE = 22.85734 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0065

CRAMER'S V = 0.23329

CONTINGENCY COEFFICIENT = 0.37464

LAMBDA (ASYMMETRIC) = 0.11765 WITH Q127 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.12687

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.09025 WITH Q127 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.09424

KENDALL'S TAU B = 0.31981 SIGNIFICANCE = 0.0000

KENDALL'S TAU C = 0.24000 SIGNIFICANCE = 0.0000

GAMMA = 0.53978

SOMERS'S D (ASYMMETRIC) = 0.32910 WITH Q127 DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.31968

ETA = 0.32392 WITH Q127 DEPENDENT.

PEARSON'S R = 0.30457 SIGNIFICANCE = 0.0001

= 0.31078 WITH Q143

DEPENDENT.

DEPENDENT.

= 0.13636 WITH Q143

DEPENDENT.

= 0.09859 WITH Q143

***** C R O S S T A B U L A T I O N O F *****
 Q127 ADEQUATE COMPENSATION BY Q158 PAY COMPARABILITY

Q158

COUNT		Q127				ROW TOTAL	
ROW PCT	IA	B	C	D			
COL PCT	IA	B	C	D	TOTAL		
TOT PCT	IA	B	C	D	TOTAL		
1.	1	1.1	2.1	3.1	4.1	12	
	1	0	0	1	1	2	
	1	0.	0.	50.0	50.0	1.4	
	1	0.	0.	1.8	1.5		
	1	0.	0.	0.7	0.7		
2.	1	1	3	6	2	12	
	1	8.3	25.0	50.0	16.7	8.6	
	1	100.0	18.8	10.5	3.0		
	1	0.7	2.1	4.3	1.4		
3.	1	0	11	39	22	72	
	1	0.	15.3	54.2	30.6	51.4	
	1	0.	68.8	68.4	33.3		
	1	0.	7.9	27.9	15.7		
4.	1	0	2	11	41	54	
	1	0.	3.7	20.4	75.9	38.6	
	1	0.	12.5	19.3	62.1		
	1	0.	1.4	7.9	29.3		
COLUMN	1	16	57	66	140		
TOTAL	0.7	11.4	40.7	47.1	100.0		

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CHI SQUARE = 41.62769 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0000
 CRAMER'S V = 0.31482
 CONTINGENCY COEFFICIENT = 0.47874
 LAMBDA (ASYMMETRIC) = 0.29412 WITH Q127 DEPENDENT. = 0.28378 WITH Q158 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.28873
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.13604 WITH Q127 DEPENDENT. = 0.13294 WITH Q158
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.13447
 KENDALL'S TAU B = 0.41946 SIGNIFICANCE = 0.0000
 KENDALL'S TAU C = 0.32939 SIGNIFICANCE = 0.0000
 GAMMA = 0.64785
 SOMERS'S D (ASYMMETRIC) = 0.41251 WITH Q127 DEPENDENT. = 0.42653 WITH Q158 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = 0.41940
 ETA = 0.42768 WITH Q127 DEPENDENT. = 0.45882 WITH Q158 DEPENDENT.
 PEARSON'S R = 0.40528 SIGNIFICANCE = 0.0000

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[illegible]

CHI SQUARE = 20.29642 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0162

CRAMER'S $V = 0.22639$

CONTINGENCY COEFFICIENT = 0.36506

LAMBDA (ASYMMETRIC) = 0.07595 WITH Q133
DEPENDENT.

$$\text{LAMBDA (SYMMETRIC)} = 0.07547$$

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.05963 WITH Q133

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.05963

KENDALL'S TAU B = -0.27006 SIGNIFICANCE = 0.0001

KENDALL'S TAU C = -0.25543
SIGNIFICANCE = 0.0001

GAMMA = -0.37130

SOMERS'S D (ASYMMETRIC) = -0.26985 WITH Q133

SOMERS'S D (SYMMETRIC) = -0.27006

CONCENTRATION (STIMULANT) = 0.29913 WITH Q133
DEPENDENT. = -0.27008

PEARSON'S $R = -0.28252$ SIGNIFICANCE = 0.0005

DEPENDENT.

= -0.27028 WITH Q145

DEPENDENT.

ETA = 0.29913 WITH Q133
DEPENDENT.

= 0.32440 WITH Q145

DEPENDENT.

NUMBER OF MISSING OBSERVATIONS = 0

Q172

COUNT		Q172							ROW	
Q124	ROW PCT	A	B	C	D	E	F	G	TOTAL	
	COL PCT									
	TOT PCT	1.1	2.1	3.1	4.1	5.1	6.1	7.1		
A	1.	1	0	0	1	1	2	1	6	
		16.7	0.	0.	16.7	16.7	33.3	16.7	4.3	
		4.5	0.	0.	4.5	8.3	13.3	3.3		
		0.7	0.	0.	0.7	0.7	1.4	0.7		
B	2.	1	4	2	6	0	3	3	19	
		5.3	21.1	10.5	31.6	0.	15.8	15.8	13.7	
		4.5	15.4	16.7	27.3	0.	20.0	10.0		
		0.7	2.9	1.4	4.3	0.	2.2	2.2		
C	3.	8	14	6	4	2	5	18	57	
		14.0	24.6	10.5	7.0	3.5	8.8	31.6	41.0	
		36.4	53.8	50.0	18.2	16.7	33.3	60.0		
		5.8	10.1	4.3	2.9	1.4	3.6	12.9		
D	4.	12	8	4	11	9	5	8	57	
		21.1	14.0	7.0	19.3	15.8	8.8	14.0	41.0	
		54.5	30.8	33.3	50.0	75.0	33.3	26.7		
		8.6	5.8	2.9	7.9	6.5	3.6	5.8		
COLUMN	22	26	12	12	22	12	15	30	139	
TOTAL	15.8	18.7	8.6	15.8	8.6	10.8	21.6	100.0		

CHI SQUARE = 27.95135 WITH 18 DEGREES OF FREEDOM SIGNIFICANCE = 0.0628

CRAMER'S V = 0.25890

CONTINGENCY COEFFICIENT = 0.40917

LAMBDA (ASYMMETRIC) = 0.21951 WITH Q124 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.13613

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.09546 WITH Q124 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.07176

KENDALL'S TAU B = -0.08357 SIGNIFICANCE = 0.1181

KENDALL'S TAU C = -0.08198 SIGNIFICANCE = 0.1181

GAMMA = -0.11174

SOMERS'S D (ASYMMETRIC) = -0.07304 WITH Q124 DEPENDENT.

SOMERS'S D (SYMMETRIC) = -0.08282

ETA = 0.22523 WITH Q124 DEPENDENT.

PEARSON'S R = 0.10157 SIGNIFICANCE = 0.1171

NUMBER OF MISSING OBSERVATIONS = 1

DEPENDENT.

= 0.05748 WITH Q172

DEPENDENT.

DEPENDENT.

NUMBER OF MISSING OBSERVATIONS = 1

Q172									
COUNT	IA	IB	IC	ID	IE	IF	IG	ROW TOTAL	
1.	1.1	2.1	3.1	4.1	5.1	6.1	7.1	33	
A	7	7	1	6	4	2	6	23.6	
	21.2	21.2	3.0	18.2	12.1	6.1	18.2		
	31.8	26.9	7.7	27.3	33.3	13.3	20.0		
	5.0	5.0	0.7	4.3	2.9	1.4	4.3		
2.	6	5	4	7	4	7	10	43	
B	14.0	11.6	9.3	16.3	9.3	16.3	23.3	30.7	
	27.3	19.2	30.8	31.8	33.3	46.7	33.3		
	4.3	3.6	2.9	5.0	2.9	5.0	7.1		
3.	8	12	7	5	3	4	6	45	
C	17.8	26.7	15.6	11.1	6.7	8.9	13.3	32.1	
	36.4	46.2	53.8	22.7	25.0	26.7	20.0		
	5.7	8.6	5.0	3.6	2.1	2.9	4.3		
4.	0	2	1	3	1	2	7	16	
D	0.	12.5	6.3	18.8	6.3	12.5	43.8	11.4	
	0.	7.7	7.7	13.6	8.3	13.3	23.3		
	0.	1.4	0.7	2.1	0.7	1.4	5.0		
5.	1	0	0	1	0	0	1	3	
E	33.3	0.	0.	33.3	0.	0.	33.3	2.1	
	4.5	0.	0.	4.5	0.	0.	3.3		
	0.7	0.	0.	0.7	0.	0.	0.7		
COLUMN TOTAL	22	26	13	22	12	15	30	140	
TOTAL	15.7	18.6	9.3	15.7	8.6	10.7	21.4	100.0	

CHI SQUARE =	21.81737 WITH 24 DEGREES OF FREEDOM	SIGNIFICANCE = 0.5902
CRAMER'S S ² =	0.19738	
CONTINGENCY COEFFICIENT =	0.36719	
LAMBDA (ASYMMETRIC) =	0.10526 WITH Q167	DEPENDENT.
LAMBDA (SYMMETRIC) =	0.08293	
UNCERTAINTY COEFFICIENT (ASYMMETRIC) =	0.06363 WITH Q167	DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) =	0.05404	
KENDALL'S TAU B =	0.05672 SIGNIFICANCE = 0.2028	= 0.04695 WITH Q172
KENDALL'S TAU C =	0.05574 SIGNIFICANCE = 0.2028	
GAMMA =	0.07172	
SOMERS'S D (ASYMMETRIC) =	0.05291 WITH Q167	DEPENDENT.
		= 0.06081 WITH Q172
		DEPENDENT.

Q172

COUNT		Q172							ROW TOTAL	
Q168	COL PCT I	1.1	2.1	3.1	4.1	5.1	6.1	7.1		
B	2.1	0.1	0.1	0.1	0.1	1.1	0.1	0.1	1.1	0.7
		0.1	0.1	0.1	0.1	100.0	0.1	0.1	1.1	0.1
		0.1	0.1	0.1	0.1	8.3	0.1	0.1	1.1	0.1
		0.1	0.1	0.1	0.1	0.7	0.1	0.1	1.1	0.1
C	3.1	2.1	4.1	2.1	3.1	1.1	5.1	6.1	23.1	16.4
		8.7	17.4	8.7	13.0	4.3	21.7	26.1	1.1	1.1
		9.1	15.4	15.4	13.6	8.3	33.3	20.0	1.1	1.1
		1.4	2.9	1.4	2.1	0.7	3.6	4.3	1.1	1.1
D	4.1	17.1	18.1	8.1	15.1	8.1	7.1	20.1	93.1	66.4
		18.3	19.4	8.6	16.1	8.6	7.5	21.5	1.1	1.1
		77.3	69.2	61.5	68.2	66.7	46.7	66.7	1.1	1.1
		12.1	12.9	5.7	10.7	5.7	5.0	14.3	1.1	1.1
E	5.1	3.1	4.1	3.1	4.1	2.1	3.1	4.1	23.1	16.4
		13.0	17.4	13.0	17.4	8.7	13.0	17.4	1.1	1.1
		13.6	15.4	23.1	18.2	16.7	20.0	13.3	1.1	1.1
		2.1	2.9	2.1	2.9	1.4	2.1	2.9	1.1	1.1
COLUMN TOTAL		22	26	13	22	12	15	30	140	100.0
		15.7	18.6	9.3	15.7	8.6	10.7	21.4		

CHI SQUARE = 17.00253 WITH 18 DEGREES OF FREEDOM SIGNIFICANCE = 0.5229
 CRAMER'S V = 0.20120
 CONTINGENCY COEFFICIENT = 0.32908
 LAMBDA (ASYMMETRIC) = 0.00637 WITH Q168 DEPENDENT. = 0.00909 WITH Q172 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.00637
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.04338 WITH Q168 DEPENDENT. = 0.02061 WITH Q172
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02795
 KENDALL'S TAU B = -0.06384 SIGNIFICANCE = 0.1859
 KENDALL'S TAU C = -0.05551 SIGNIFICANCE = 0.1859
 GAMMA = -0.09714
 SOMERS'S D (ASYMMETRIC) = -0.04940 WITH Q168 DEPENDENT. = -0.08249 WITH Q172 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = -0.06179
 ETA = 0.11162 WITH Q168 DEPENDENT. = 0.12434 WITH Q172 DEPENDENT.
 PEARSON'S R = 0.08271 SIGNIFICANCE = 0.1657

FILE LEE (CREATION DATE = 02-10-81)

 Q173 GRADE ***** C R U S T A B U L A T I O N O F *****
 ***** BY Q117 ***** D E P E N D E N T D E N T A L C A K E *****
 ***** PAGE

Q117

COUNT		B		C		ROW	
ROW PCT	IA					TOTAL	
COL PCT	I	1.1	2.1	3.1			
TOT PCT	I						
1.	I	25	I 32	I 7	I 64		
	I	39.1	I 50.0	I 10.9	I 45.7		
	I	35.7	I 57.1	I 50.0	I		
	I	17.9	I 22.9	I 5.0	I		
3.	I	45	I 24	I 7	I 76		
	I	59.2	I 31.6	I 9.2	I 54.3		
	I	64.3	I 42.9	I 50.0	I		
	I	32.1	I 17.1	I 5.0	I		
COLUMN		70	56	14	140		
TOTAL		50.0	40.0	10.0	100.0		

CHI SQUARE = 5.87171 WITH 2 DEGREES OF FREEDOM SIGNIFICANCE = 0.0531

CRAMER'S V = 0.20479

CONTINGENCY COEFFICIENT = 0.20063

LAMBDA (ASYMMETRIC) = 0.12500 WITH Q173 DEPENDENT. = 0.10000 WITH Q117 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.11194

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.03062 WITH Q173 DEPENDENT. = 0.02238 WITH Q117

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02586

KENDALL'S TAU B = -0.17573 SIGNIFICANCE = 0.0159

KENDALL'S TAU C = -0.18857 SIGNIFICANCE = 0.0159

GAMMA = -0.31622

SOMERS'S D (ASYMMETRIC) = -0.16256 WITH Q173 DEPENDENT. = -0.18997 WITH Q117 DEPENDENT.

SOMERS'S D (SYMMETRIC) = -0.17520

ETA = 0.20479 WITH Q173 DEPENDENT. = 0.16428 WITH Q117 DEPENDENT.

WILCOXSON R = -0.16428 SIGNIFICANCE = 0.0262

Q172

COUNT												ROW TOTAL	
ROW PCT	IA												
COL PCT	I												
TOT PCT	I	1.1	2.1	3.1	4.1	5.1	6.1	7.1					
B	2.	0	0	0	0	1	0	0	1	0	0	1	0.7
		0.	0.	0.	0.	100.0	0.	0.	0.	0.	0.	0.	
		0.	0.	0.	0.	8.3	0.	0.	0.	0.	0.	0.	
		0.	0.	0.	0.	0.7	0.	0.	0.	0.	0.	0.	
C	3.	2	4	2	3	1	5	6	1	6	1	23	16.4
		8.7	17.4	8.7	13.0	4.3	21.7	26.1	1	26.1	1	16.4	
		9.1	15.4	15.4	13.6	8.3	33.3	20.0	1	20.0	1	16.4	
		1.4	2.9	1.4	2.1	0.7	3.6	4.3	1	4.3	1	16.4	
D	4.	17	18	8	15	8	7	20	1	20	1	93	66.4
		18.3	19.4	8.6	16.1	8.6	7.5	21.5	1	21.5	1	66.4	
		77.3	69.2	61.5	68.2	66.7	46.7	66.7	1	66.7	1	66.4	
		12.1	12.9	5.7	10.7	5.7	5.0	14.3	1	14.3	1	66.4	
E	5.	3	4	3	4	2	3	4	1	4	1	23	16.4
		13.0	17.4	13.0	17.4	8.7	13.0	17.4	1	17.4	1	16.4	
		13.6	15.4	23.1	18.2	16.7	20.0	13.3	1	13.3	1	16.4	
		2.1	2.9	2.1	2.9	1.4	2.1	2.9	1	2.9	1	16.4	
COLUMN		22	26	13	22	12	15	30					
TOTAL		15.7	18.6	9.3	15.7	8.6	10.7	21.4					

CHI SQUARE = 17.00253 WITH 18 DEGREES OF FREEDOM SIGNIFICANCE = 0.5229
 CRAMER'S V = 0.20120
 CONTINGENCY COEFFICIENT = 0.32908
 LAMBDA (ASYMMETRIC) = 0. WITH Q168 DEPENDENT. = 0.00909 WITH Q172 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.00637
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.04338 WITH Q168 DEPENDENT. = 0.02061 WITH Q172
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02795
 KENDALL'S TAU B = -0.06384 SIGNIFICANCE = 0.1859
 KENDALL'S TAU C = -0.05551 SIGNIFICANCE = 0.1859
 GAMMA = -0.09714
 SOMERS'S D (ASYMMETRIC) = -0.04940 WITH Q168 DEPENDENT. = -0.08249 WITH Q172 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = -0.06179
 ETA = 0.11162 WITH Q168 DEPENDENT. = 0.12434 WITH Q172 DEPENDENT.
 PEARSON'S R = -0.08271 SIGNIFICANCE = 0.1657

Q167

COUNT		B					C					D					E					ROW TOTAL
ROW PCT	IA	1.1	2.1	3.1	4.1	5.1	1.1	2.1	3.1	4.1	5.1	1.1	2.1	3.1	4.1	5.1	1.1	2.1	3.1	4.1	5.1	
COL PCT	I	1.1	2.1	3.1	4.1	5.1	1.1	2.1	3.1	4.1	5.1	1.1	2.1	3.1	4.1	5.1	1.1	2.1	3.1	4.1	5.1	
TOT PCT	I	1.1	2.1	3.1	4.1	5.1	1.1	2.1	3.1	4.1	5.1	1.1	2.1	3.1	4.1	5.1	1.1	2.1	3.1	4.1	5.1	
1.		12	14	17.1	21	25.0	12	14	17.1	21	25.0	12	14	17.1	21	25.0	12	14	17.1	21	25.0	
2.		16	19	24.2	28.8	34.3	16	19	24.2	28.8	34.3	16	19	24.2	28.8	34.3	16	19	24.2	28.8	34.3	
3.		20.0	20.9	23.6	28.0	33.3	20.0	20.9	23.6	28.0	33.3	20.0	20.9	23.6	28.0	33.3	20.0	20.9	23.6	28.0	33.3	
4.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL		33	43	45	55	66	33	43	45	55	66	33	43	45	55	66	33	43	45	55	66	
TOTAL		23.6	30.7	32.1	38.1	43.1	23.6	30.7	32.1	38.1	43.1	23.6	30.7	32.1	38.1	43.1	23.6	30.7	32.1	38.1	43.1	

CHI SQUARE = 25.44082 WITH 16 DEGREES OF FREEDOM SIGNIFICANCE = 0.0024

CRAMER'S V = 0.21314

CONTINGENCY COEFFICIENT = 0.39214

LAMBDA (ASYMMETRIC) = 0.04734

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.07941 WITH Q175

KENDALL'S TAU B = 0.23119 SIGNIFICANCE = 0.0007

KENDALL'S TAU C = 0.20357 SIGNIFICANCE = 0.0007

GAMMA = 0.32545

SOMERS'S D (ASYMMETRIC) = 0.22210 WITH Q175

DEPENDENT.

DEPENDENT.

DEPENDENT.

DEPENDENT.

DEPENDENT.

APPENDIX D

FAMILY CONSIDERATIONS CROSSTABS

 Q173 GRADE ***** CROSS TABULATION OF *****
 ***** BY Q148 ***** ASSIGNMENT STABILITY ***** PAGE

Q173

COUNT					Q148	
ROW PCT					I	
COL PCT					B	
TOT PCT					C	
					1.1	2.1
A	1.	7	47	10	3.1	
	I	10.9	I	73.4	I	15.6
	I	25.0	I	49.0	I	62.5
	I	5.0	I	33.6	I	7.1
C	3.	21	49	6		
	I	27.6	I	64.5	I	7.9
	I	75.0	I	51.0	I	37.5
	I	15.0	I	35.0	I	4.3
COLUMN TOTAL					96	16
					20.0	11.4
					140	100.0

117

CHI SQUARE = 7.06500 WITH 2 DEGREES OF FREEDOM SIGNIFICANCE = 0.0292
 CRAMER'S V = 0.22464
 CONTINGENCY COEFFICIENT = 0.21918
 LAMBDA (ASYMMETRIC) = 0.06250 WITH Q173 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.03704
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.03806 WITH Q173 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.03458
 KENDALL'S TAU B = -0.21397 SIGNIFICANCE = 0.0045
 KENDALL'S TAU C = -0.20816 SIGNIFICANCE = 0.0045
 GAMMA = -0.43331
 SOMERS'S D (ASYMMETRIC) = -0.21832 WITH Q173 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = -0.21393
 ETA = 0.22464 WITH Q173 DEPENDENT.
 PEARSON'S R = -0.21962 SIGNIFICANCE = 0.0046

WITH Q148 DEPENDENT.
 = 0.03166 WITH Q148 DEPENDENT.
 = -0.20970 WITH Q148 DEPENDENT.
 = 0.21962 WITH Q148 DEPENDENT.

PAGE

CROSS TABULATION OF WIFE WORKS

COUNT	I	B	C	D	ROW	TOTAL
ROW	PCT	IA				
COL	PCT	I				
1	100	100	100	100	100	100
2	100	100	100	100	100	100
3	100	100	100	100	100	100
4	100	100	100	100	100	100
5	100	100	100	100	100	100
6	100	100	100	100	100	100
7	100	100	100	100	100	100
8	100	100	100	100	100	100
9	100	100	100	100	100	100
10	100	100	100	100	100	100
11	100	100	100	100	100	100
12	100	100	100	100	100	100
13	100	100	100	100	100	100
14	100	100	100	100	100	100
15	100	100	100	100	100	100
16	100	100	100	100	100	100
17	100	100	100	100	100	100
18	100	100	100	100	100	100
19	100	100	100	100	100	100
20	100	100	100	100	100	100
21	100	100	100	100	100	100
22	100	100	100	100	100	100
23	100	100	100	100	100	100
24	100	100	100	100	100	100
25	100	100	100	100	100	100
26	100	100	100	100	100	100
27	100	100	100	100	100	100
28	100	100	100	100	100	100
29	100	100	100	100	100	100
30	100	100	100	100	100	100
31	100	100	100	100	100	100
32	100	100	100	100	100	100
33	100	100	100	100	100	100
34	100	100	100	100	100	100
35	100	100	100	100	100	100
36	100	100	100	100	100	100
37	100	100	100	100	100	100
38	100	100	100	100	100	100
39	100	100	100	100	100	100
40	100	100	100	100	100	100
41	100	100	100	100	100	100
42	100	100	100	100	100	100
43	100	100	100	100	100	100
44	100	100	100	100	100	100
45	100	100	100	100	100	100
46	100	100	100	100	100	100
47	100	100	100	100	100	100
48	100	100	100	100	100	100
49	100	100	100	100	100	100
50	100	100	100	100	100	100
51	100	100	100	100	100	100
52	100	100	100	100	100	100
53	100	100	100	100	100	100
54	100	100	100	100	100	100
55	100	100	100	100	100	100
56	100	100	100	100	100	100
57	100	100	100	100	100	100
58						

	1	2	3	4
TOT PCT I	1.0	2.0	3.0	4.0

1.	1	11	22	25	2	60
	1	18.3	36.7	41.7	3.3	45.5

3.	1	24	1	30	1	14	1	4	1	72
	1	33.3	1	41.7	1	19.4	1	5.6	1	54.5

COLUMN	35	52	39	6	132
TOTAL	26.5	39.4	29.5	4.5	100.0

CHI SQUARE = 8.81048 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = 0.0319

CRAMER'S V =	0.25835		
CONTINGENCY COEFFICIENT =	0.25014		
LAMBDA (ASYMMETRIC) =	0.18333 WITH Q173	DEPENDENT.	
LAMBDA (SYMMETRIC) =	0.10000		
UNCERTAINTY COEFFICIENT (ASYMMETRIC) =	0.04901 WITH Q173		
UNCERTAINTY COEFFICIENT (SYMMETRIC) =	0.03538	DEPENDENT.	= 0.02768 WITH Q129
KENDALL'S TAU B =	-0.19496	SIGNIFICANCE =	0.0084
KENDALL'S TAU C =	-0.22727	SIGNIFICANCE =	0.0084
GAMMA =	-0.32587		
SOMER'S D (ASYMMETRIC) =	-0.16586 WITH Q173	DEPENDENT.	= -0.22917 WITH Q129
SOMER'S D (SYMMETRIC) =	-0.19244		
ETA =	0.25835 WITH Q173	DEPENDENT.	= 0.19132 WITH Q129
PEARSON'S R =	-0.19132	SIGNIFICANCE =	0.0140

NUMBER OF MISSING OBSERVATIONS = 8

Q144									
COUNT	IA	B	C	D	ROW TOTAL				
ROW PCT	COL PCT	TOT PCT							
1.	1	1	1	1	4.1				
	6	17	3	1	1				
	22.2	63.0	11.1	3.7	20.3				
	60.0	21.3	9.1	10.0					
	4.5	12.8	2.3	0.8					
2.	1	1	1	1	4.1				
	3	57	24	4					
	3.4	64.8	27.3	4.5	66.2				
	30.0	71.3	72.7	40.0					
	2.3	42.9	18.0	3.0					
3.	1	1	1	1	4.1				
	6.3	31.3	37.5	25.0	12.0				
	10.0	6.3	18.2	40.0					
	0.8	3.8	4.5	3.0					
4.	1	1	1	1	4.1				
	0	1	0	1	2				
	0.	50.0	0.	50.0	1.5				
	0.	1.3	0.	10.0					
	0.	0.8	0.	0.8					
COLUMN TOTAL	10	80	33	10	133				
	7.5	60.2	24.8	7.5	100.0				

CHI SQUARE = 29.18144 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0006

CRAMER'S V = 0.27044

CONTINGENCY COEFFICIENT = 0.42418

LAMBDA (ASYMMETRIC) = 0.06667 WITH Q115
DEPENDENT.
= 0.01887 WITH Q144
DEPENDENT.

LAMBDA (SYMMETRIC) = 0.04082

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.0969

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.09073

KENDALL'S TAU B = 0.30855 SIGNIFICANCE = 0.0001

KENDALL'S TAU C = 0.22010 SIGNIFICANCE = 0.0001

GAMMA = 0.52784

SOMERS'S D (ASYMMETRIC) = 0.29200 WITH Q115

SOMERS'S D (SYMMETRIC) = 0.30808

ETA = 0.34864 WITH Q115 DEPENDENT.

PEARSON'S R = 0.34258 SIGNIFICANCE = 0.0000

1430330

884

11

32604 WITH GLASS

DEPENDENT.

= 0.34562 WITH 0144

PEARSON'S R = 0.34258 SIGNIFICANCE = 0.0000

Q164

COUNT		B					C					D					E					ROW TOTAL	
ROW PCT	IA																					ROW TOTAL	
COL PCT	I																					ROW TOTAL	
TOT PCT	I																					ROW TOTAL	
A	1.	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	
		30.0	40.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	7.5	
		30.0	16.0	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	10	
		2.3	3.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	7.5	
B	2.	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	80		
		8.8	22.5	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	60.2		
		70.0	72.0	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	64.3	80		
		5.3	13.5	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	60.2		
C	3.	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	33		
		0.	9.1	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	51.5	24.8		
		0.	12.0	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	33		
		0.	2.3	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	24.8		
D	4.	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10		
		0.	0.	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	7.5		
		0.	0.	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	10		
		0.	0.	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	7.5		
COLUMN		10	25	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	133		
TOTAL		7.5	18.8	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	100.0		

CHI SQUARE = 33.13935 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0009
 CRAMER'S V = 0.28819
 CONTINGENCY COEFFICIENT = 0.44662
 LAMBDA (ASYMMETRIC) = 0.05660 WITH Q144 DEPENDENT. = 0.01587 WITH Q164 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.03448
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.12849 WITH Q144 DEPENDENT. = 0.10233 WITH Q164
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.11393
 KENDALL'S TAU B = 0.41389 SIGNIFICANCE = 0.0000
 KENDALL'S TAU C = 0.33633 SIGNIFICANCE = 0.0000
 GAMMA = 0.65063
 SOMERS'S D (ASYMMETRIC) = 0.38393 WITH Q144 DEPENDENT. = 0.44620 WITH Q164 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = 0.41273
 ETA = 0.45939 WITH Q144 DEPENDENT. = 0.46853 WITH Q164 DEPENDENT.
 PEARSON'S R = 0.45762 SIGNIFICANCE = 0.0000

***** WIFE WORKS ***** CROSS TABULATION OF ***** FINANCIAL ***** BY Q167 ***** PAGE 1

Q167

COUNT	IA	B	C	D	E	ROW TOTAL
1.	12	17	2.1	3.1	4.1	5.1
	34.3	48.6	11.4	4	2.9	2.9
	37.5	40.5	10.0	1	6.7	33.3
	9.1	12.9	3.0	1	0.8	0.8
2.	16	15	1	19	2	0
	30.8	28.8	36.5	3.8	1	0.
	50.0	35.7	47.5	13.3	1	0.
	12.1	11.4	14.4	1.5	1	0.
3.	4	10	16	9	1	0
	10.3	25.6	41.0	23.1	1	0.
	12.5	23.8	40.0	60.0	1	0.
	3.0	7.6	12.1	6.8	1	0.
4.	0	0	1	3	2	
	0.	0.	16.7	50.0	33.3	
	0.	0.	2.5	20.0	66.7	
	0.	0.	0.8	2.3	1.5	
COLUMN TOTAL	32	42	40	15	3	
	24.2	31.8	30.3	11.4	2.3	

CHI SQUARE = 64.20543 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0000

CRAMER'S V = 0.40266

CONTINGENCY COEFFICIENT = 0.57205

LAMBDA (ASYMMETRIC) = 0.13750 WITH Q129 DEPENDENT. = 0.14444 WITH Q167 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.14118

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.15449 WITH Q129 DEPENDENT. = 0.13432 WITH Q167

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.14370

KENDALL'S TAU B = 0.38083 SIGNIFICANCE = 0.0000

KENDALL'S TAU C = 0.36027 SIGNIFICANCE = 0.0000

GAMMA = 0.51850

SOMERS'S D (ASYMMETRIC) = 0.36776 WITH Q129 DEPENDENT. = 0.39437 WITH Q167 DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.38060

ETA = 0.48067 WITH Q129 DEPENDENT. = 0.50100 WITH Q167 DEPENDENT.

PEARSON'S R = 0.45596 SIGNIFICANCE = 0.0000

0129 WIFE WORKS CROSTABULATION OF EXTRA INCOME PAGE

COUNT		B		C		D		E		F		G		ROW TOTAL
ROW PCT	COL PCT	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.	1.	2.	
1.	1.	6	2	1	2	3	1	4	1	5	1	6	1	7.1
		17.1	5.7	1	5.7	17.1	1	11.4	1	14.3	1	14.3	1	28.6
		31.6	8.3	1	16.7	27.3	1	36.4	1	35.7	1	35.7	1	33.3
		4.5	1.5	1	1.5	4.5	1	3.0	1	3.8	1	3.8	1	7.6
2.	1.	8	10	1	6	9	1	9	1	5	1	6	1	8
		15.4	19.2	1	11.5	17.3	1	9.6	1	11.5	1	11.5	1	15.4
		42.1	41.7	1	50.0	40.9	1	45.5	1	42.9	1	42.9	1	26.7
		6.1	7.6	1	4.5	6.8	1	3.8	1	4.5	1	4.5	1	6.1
3.	1.	4	12	1	4	6	1	6	1	1	1	2	1	10
		10.3	30.8	1	10.3	15.4	1	2.6	1	5.1	1	5.1	1	25.6
		21.1	50.0	1	33.3	27.3	1	9.1	1	14.3	1	14.3	1	33.3
		3.0	9.1	1	3.0	4.5	1	0.8	1	1.5	1	1.5	1	7.6
4.	1.	1	0	1	0	1	1	1	1	1	1	1	1	2
		16.7	0.	1	0.	16.7	1	16.7	1	16.7	1	16.7	1	33.3
		5.3	0.	1	0.	4.5	1	9.1	1	7.1	1	7.1	1	6.7
		0.8	0.	1	0.	0.8	1	0.8	1	0.8	1	0.8	1	1.5
COLUMN TOTAL		19	24	12	22	22	11	14	30	132				
		14.4	18.2	9.1	16.7	16.7	8.3	10.6	22.7	100.0				

CHI SQUARE = 16.22461 WITH 18 DEGREES OF FREEDOM SIGNIFICANCE = 0.5769
 CRAMER'S V = 0.20241
 CONTINGENCY COEFFICIENT = 0.33085
 LAMBDA (ASYMMETRIC) = 0.05000 WITH Q129 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.04396
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.05944 WITH Q129 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.04667
 KENDALL'S TAU B = -0.05688 SIGNIFICANCE = 0.2135
 KENDALL'S TAU C = -0.05755 SIGNIFICANCE = 0.2135
 GAMMA = -0.07440
 SOMERS'S D (ASYMMETRIC) = -0.05136 WITH Q129 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = -0.05658
 ETA = 0.18918 WITH Q129 DEPENDENT.
 PEARSON'S R = -0.05947 SIGNIFICANCE = 0.2491

Q148

COUNT				ROW	
I				TOTAL	
ROW PCT	IA	B	C		
COL PCT	I				
TOT PCT	I	1.1	2.1	3.1	
1.	I	17	6	0	23
	I	73.9	26.1	0.	16.4
	I	60.7	6.3	0.	
	I	12.1	4.3	0.	
2.	I	8	43	0	51
	I	15.7	84.3	0.	36.4
	I	28.6	44.8	0.	
	I	5.7	30.7	0.	
3.	I	3	44	16	63
	I	4.8	69.8	25.4	45.0
	I	10.7	45.8	100.0	
	I	2.1	31.4	11.4	
4.	I	0	3	0	3
	I	0.	100.0	0.	2.1
	I	0.	3.1	0.	
	I	0.	2.1	0.	
COLUMN	28	96	16	140	
TOTAL	20.0	68.6	11.4	100.0	

CHI SQUARE = 69.71459 WITH 6 DEGREES OF FREEDOM SIGNIFICANCE = 0.0000

CRAMER'S V = 0.49898

CONTINGENCY COEFFICIENT = 0.57656

LAMBDA (ASYMMETRIC) = 0.18182 WITH Q142 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.20661

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.21808 WITH Q142 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.24939

KENDALL'S TAU B = 0.52870 SIGNIFICANCE = 0.0000

KENDALL'S TAU C = 0.43714 SIGNIFICANCE = 0.0000

GAMMA = 0.85458

SOMERS'S D (ASYMMETRIC) = 0.61130 WITH Q142 DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.52317

ETA = 0.58176 WITH Q142 DEPENDENT.

PEARSON'S R = 0.56875 SIGNIFICANCE = 0.0000

= 0.25000 WITH Q148 DEPENDENT.

= 0.29120 WITH Q148 DEPENDENT.

= 0.45725 WITH Q148 DEPENDENT.

= 0.60008 WITH Q148 DEPENDENT.

***** GRADE ***** CROSS TABULATION OF ***** FAMILY CONTINUAL CAREER *****
 Q173 ***** BY Q144 ***** PAGE

Q144

COUNT					ROW TOTAL
ROW PCT	IA	B	C	D	
COL PCT					
TOT PCT	1.1	2.1	3.1	4.1	
1.	8	37	12	4	61
	13.1	60.7	19.7	6.6	45.9
	80.0	46.3	36.4	40.0	
	6.0	27.8	9.0	3.0	
3.	2	43	21	6	72
	2.8	59.7	29.2	8.3	54.1
	20.0	53.8	63.6	60.0	
	1.5	32.3	15.8	4.5	
COLUMN	10	80	33	10	133
TOTAL	7.5	60.2	24.8	7.5	100.0

CHI SQUARE = 6.03606 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = 0.1099

CRAMER'S V = 0.21303

CONTINGENCY COEFFICIENT = 0.20836

LAMBDA (ASYMMETRIC) = 0.09836 WITH Q173 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.05263

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.03425 WITH Q173 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02730

KENDALL'S TAU B = 0.16069 SIGNIFICANCE = 0.0261

KENDALL'S TAU C = 0.17028 SIGNIFICANCE = 0.0261

GAMMA = 0.30012

SOVER'S D (ASYMMETRIC) = 0.15060 WITH Q173 DEPENDENT.

SOVER'S D (SYMMETRIC) = 0.16035

ETA = 0.21303 WITH Q173 DEPENDENT.

PEARSON'S R = 0.16165 SIGNIFICANCE = 0.0315

NUMBER OF MISSING OBSERVATIONS = 7

WITH Q144 DEPENDENT.

= 0.02270 WITH Q144

DEPENDENT.

DEPENDENT.

COUNT				Q144				TOTAL			
ROW	COL	PCT IA	PCT I	IA	B	C	D	IA	B	C	D
1.	1	22.2	6	14	1	2.1	3.1	4.1	27	20.3	KUM
1.	1	60.0	17.5	18.2	1	10.0	10.0	1	20.3	20.3	TOTAL
1.	1	4.5	10.5	4.5	1	0.8	0.8	1	35	26.3	
2.	1	2.9	77.1	14.3	1	5.7	5.7	1	26.3	26.3	
1.	1	10.0	33.8	15.2	1	20.0	20.0	1	63	47.4	
1.	1	0.8	20.3	3.8	1	1.5	1.5	1	63	47.4	
3.	1	3	35	19	1	6	6	1	8	6.0	
1.	1	4.8	55.6	30.2	1	9.5	9.5	1	8	6.0	
1.	1	30.0	43.8	57.6	1	60.0	60.0	1	8	6.0	
1.	1	2.3	26.3	14.3	1	4.5	4.5	1	8	6.0	
4.	1	0	4	3	1	1	1	1	133	100.0	
1.	1	0.	50.0	37.5	1	12.5	12.5	1	133	100.0	
1.	1	0.	5.0	9.1	1	10.0	10.0	1	133	100.0	
1.	1	0.	3.0	2.3	1	0.8	0.8	1	133	100.0	
COLUMN		10	80	23		10	7.5		133	100.0	
TOTAL		7.5	60.2	24.8		7.5	7.5		133	100.0	

CHI SQUARE = 16.51673 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0568
 GAMMA'S V = 0.20346
 CONTINGENCY COEFFICIENT = 0.33237
 LEWEDA (ASYMMETRIC) = 0.04286 WITH Q176 DEPENDENT.
 LEWEDA (SYMMETRIC) = 0.02439
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.04693 WITH Q176 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.05023
 FENDALL'S AU B = 0.20873 SIGNIFICANCE = 0.0035
 FENDALL'S AU C = 0.17020 SIGNIFICANCE = 0.0035
 GAMMA = 0.33712
 SUMERS'S D (ASYMMETRIC) = 0.22580 WITH Q176 DEPENDENT.
 SUMERS'S D (SYMMETRIC) = 0.20809
 W = 0.20091 WITH Q176 DEPENDENT.
 LEWSON'S R = 0.22893 SIGNIFICANCE = 0.0040
 = 0.22964 WITH Q144 DEPENDENT.
 = 0.19296 WITH Q144 DEPENDENT.

APPENDIX E

SOCIAL LIFE/CAMARADERIE CROSSTABS

COUNT		ROW PCT		COL PCT		TOTAL	
IA	IB	IA	IB	IA	IB	IA	IB
1.	1.	21	7	1	1	21	7
1.	1.	75.0	25.0	1	1	75.0	25.0
1.	1.	31.8	11.3	1	1	31.8	11.3
1.	1.	15.0	5.0	1	1	15.0	5.0
2.	2.	18	15	1	1	18	15
2.	2.	50.0	41.7	1	1	50.0	41.7
2.	2.	27.3	24.2	1	1	27.3	24.2
2.	2.	12.9	10.7	1	1	12.9	10.7
3.	3.	26	35	1	1	26	35
3.	3.	38.8	52.2	1	1	38.8	52.2
3.	3.	39.4	56.5	1	1	39.4	56.5
3.	3.	18.6	25.0	1	1	18.6	25.0
4.	4.	1	5	1	1	1	5
4.	4.	11.1	55.6	1	1	11.1	55.6
4.	4.	1.5	8.1	1	1	1.5	8.1
4.	4.	0.7	3.6	1	1	0.7	3.6
COLUMN TOTAL	COLUMN TOTAL	66	62	66	62	66	62
ROW TOTAL	ROW TOTAL	28	20.0	28	20.0	28	20.0
36	25.7	36	25.7	36	25.7	36	25.7
67	47.9	67	47.9	67	47.9	67	47.9
9	6.4	9	6.4	9	6.4	9	6.4
140	100.0	140	100.0	140	100.0	140	100.0

CHI SQUARE = 20.61219 WITH 6 DEGREES OF FREEDOM SIGNIFICANCE = 0.0022

CRAIGER'S $V = 0.27132$

CONTINGENCY COEFFICIENT = 0.35824

LAMSDA (ASYMMETRIC) = 0. WITH Q176
DEPENDENT.
= 0.17568 WITH Q150
DEPENDENT.

LANEDA (SYMMETRIC) = 0.08844

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.0628

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.07092

KENDALL'S TAU B = 0.30298 SIGNIFICANCE = 0.0000

RECALL'S TAU C = 0.27995 SIGNIFICANCE = 0.0000

GAM:A = 0.47967

SUMERS'S D (ASYMMETRIC) = 0.32498 WITH Q176 DEPENDENT.

SYNMFTRIC) = 0.30224

SUMERS: 3 D (31MMELRIC) = 0.30224
ETA = 0.4494 WITH 0176 DEPENDENT.

$\text{EIA} = 0.34494$ WITH Q176 DEPENDENT.
PEAKS IN S R = 0.34376 SIGNIFICANCE = 0.0000

DEPENDENT.
= 0.06143 WITH 6156

= 0.17568 WITH 6156 DEPENDENT.

= U. 28247 WITH U156
DEPENDENT.

= 0.36427 WITH Q156
DEPENDENT.

Q156

COUNT									
ROW	PCT	IA	B	C	ROW	TOTAL			
COL	PCT	I							
TOT	PCT	I	1	I	2	I	3	I	
177									
A			1	10	1	3	1	0	13
			1	76.9	1	23.1	1	0.	9.5
			1	15.9	1	4.8	1	0.	
			1	7.3	1	2.2	1	0.	
			-1	-	-	-	-	-	
B			2	12	1	10	1	0	22
			1	54.5	1	45.5	1	0.	16.1
			1	19.0	1	16.1	1	0.	
			1	8.8	1	7.3	1	0.	
			-1	-	-	-	-	-	
C			3	15	1	8	1	3	26
			1	57.7	1	30.8	1	11.5	19.0
			1	23.8	1	12.9	1	25.0	
			1	10.9	1	5.8	1	2.2	
			-1	-	-	-	-	-	
D			4	7	1	12	1	1	20
			1	35.0	1	60.0	1	5.0	14.6
			1	11.1	1	19.4	1	8.3	
			1	5.1	1	8.8	1	0.7	
			-1	-	-	-	-	-	
E			5	14	1	12	1	1	27
			1	51.9	1	44.4	1	3.7	19.7
			1	22.2	1	19.4	1	8.3	
			1	10.2	1	8.8	1	0.7	
			-1	-	-	-	-	-	
F			6	4	1	12	1	4	20
			1	20.0	1	60.0	1	20.0	14.6
			1	6.3	1	19.4	1	33.3	
			1	2.9	1	8.8	1	2.9	
			-1	-	-	-	-	-	
G			7	1	1	2	1	2	5
			1	20.0	1	40.0	1	40.0	3.6
			1	1.6	1	3.2	1	16.7	
			1	0.7	1	1.5	1	1.5	
			-1	-	-	-	-	-	
			COLUMN	63	62	12	8.8	137	
			TOTAL	46.0	45.3	8.8	100.0		

(CONTINUED)

178 RATING BY Q146 SOCIAL FOR FUTURE

Q146

COUNT		ROW		TOTAL	
COL	PCT	IA	B	C	D
COL PCT	1	1	2	3	4
TOT PCT	1	1	2	3	4
1	28	1	30	1	0
2	44.4	1	47.6	1	7.9
3	65.1	1	40.0	1	23.8
4	20.0	1	21.4	1	3.6
5	7	1	14	1	6
6	25.9	1	51.9	1	22.2
7	16.3	1	18.7	1	28.6
8	5.0	1	10.0	1	4.3
9	8	1	31	1	10
10	16.0	1	62.0	1	20.0
11	18.6	1	41.3	1	47.6
12	5.7	1	22.1	1	7.1
13	43	75	21	1	140
COLUMN	30.7	53.6	15.0	0.7	100.0
TOTAL					

RAW CHI SQUARE = 14.35528 WITH 6 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0259

RAMER'S = 0.22643

CONTINGENCY COEFFICIENT = 0.30496

LAMBDA (ASYMMETRIC) = 0.09091 WITH Q178 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.04930

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.05173 WITH Q178 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.05242

PENDALL'S TAU B = 0.26733. SIGNIFICANCE = 0.0003

PENDALL'S TAU C = ***** SIGNIFICANCE = 0.0000

GAMMA = 0.42331

SOMERS'S D (ASYMMETRIC) = 0.27542 WITH Q178 DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.26721

ETA = 0.30352 WITH Q178 DEPENDENT.

PEARSON'S R = 0.29463 SIGNIFICANCE = 0.0002

WITH Q146 DEPENDENT.

WITH Q146 DEPENDENT.

***** SOURCE OF COMMISSION ***** C R U S S T A B U L A T I O N O F S U C I A L A S P E C T S ***** PAGE

Q131

	COUNT	1	C	D	ROW
Q179	ROW PCT 1B	2	3	4	TOTAL
A	COL PCT 1	1	5	47	77
	TOT PCT 1	1	6.5	61.0	55.4
		1	50.0	57.3	53.2
		1	3.6	33.8	18.0
B		2	0	18	22
		1	0	81.8	15.8
		1	0	22.0	8.5
		1	0	12.9	2.9
C		3	3	7	15
		1	20.0	46.7	33.3
		1	30.0	8.5	10.6
		1	2.2	5.0	3.6
D		4	2	10	25
		1	8.0	40.0	52.0
		1	20.0	12.2	27.7
		1	1.4	7.2	9.4
	COLUMN	10	82	47	139
	TOTAL	7.2	59.0	33.8	100.0

RAW CHI SQUARE = 13.06712 WITH 6 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0420

CRAMER'S V = 0.21680

CONTINGENCY COEFFICIENT = 0.29314

LAMBDA (ASYMMETRIC) = 0. WITH Q179 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.02521

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.04163 WITH Q179 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.04778

KENDALL'S TAU B = 0.05674. SIGNIFICANCE = 0.2319

KENDALL'S TAU C = 42.32546. SIGNIFICANCE = 0.0000

GAMMA = 0.09605

SOMERS'S D (ASYMMETRIC) = 0.06143 WITH Q179 DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.05656

ETA = 0.16194 WITH Q179 DEPENDENT.

PEARSON'S R = 0.07582 SIGNIFICANCE = 0.1875

DEPENDENT.

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***** C R O S S T A B U L A T I O N U F ***** BEST ORGANIZATION ***** PAGE
 Q146 SOCIAL FOR RETENTION WITH Q156 BY Q156 *****

Q156									
COUNT	IA	B	C	ROW					
ROW PCT	IA	B	C	TOTAL					
COL PCT	IA	B	C	TOTAL					
TOT PCT	IA	B	C	TOTAL					
1.	36	7	0	43					
	83.7	16.3	0.	30.7					
A	54.5	11.3	0.						
	25.7	5.0	0.						
2.	27	44	4	75					
	36.0	58.7	5.3	53.6					
B	40.9	71.0	33.3						
	19.3	31.4	2.9						
3.	3	10	8	21					
	14.3	47.6	38.1	15.0					
C	4.5	16.1	66.7						
	2.1	7.1	5.7						
4.	0	1	0	1					
	0.	100.0	0.	0.7					
D	0.	1.6	0.						
	0.	0.7	0.						
COLUMN	66	62	12	140					
TOTAL	47.1	44.3	8.6	100.0					

CHI SQUARE = 57.37613 WITH 6 DEGREES OF FREEDOM SIGNIFICANCE = 0.0000

CRAMER'S V = 0.45268

CONTINGENCY COEFFICIENT = 0.53916

LAMBDA (ASYMMETRIC) = 0.20000 WITH Q146 DEPENDENT. = 0.33784 WITH Q156 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.27338

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.18795 WITH Q146 DEPENDENT. = 0.20643 WITH Q156

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.19676

KENDALL'S TAU B = 0.51587 SIGNIFICANCE = 0.0000

KENDALL'S TAU C = 0.45276 SIGNIFICANCE = 0.0000

GAMMA = 0.78462

SOMER'S D (ASYMMETRIC) = 0.52559 WITH Q146 DEPENDENT. = 0.50633 WITH Q156 DEPENDENT

SOMER'S D (SYMMETRIC) = 0.51578

ETA = 0.54543 WITH Q146 DEPENDENT. = 0.55413 WITH Q156 DEPENDENT.

PEARSON'S R = 0.54542 SIGNIFICANCE = 0.0000

***** SOCIAL ASPECTS *****
***** Q131 *****
***** CROSS TABULATION *****
***** BY Q160 *****
***** CIVILIAN FRIENDS *****
***** PAGE 10 *****

COUNT				Q160			
ROW	PCT	IA	B	C	D	ROW	
COL	PCT					TOTAL	
TOT	PCT						
2.		1.1	2.1	3.1	4.1	9	
		2	2	5	0	6.7	
		22.2	22.2	55.6	0.		
		10.0	4.2	8.9	0.		
		1.5	1.5	3.7	0.		
3.		9	30	32	9	80	
		11.3	37.5	40.0	11.3	59.3	
		45.0	62.5	57.1	81.8		
		6.7	22.2	23.7	6.7		
4.		9	16	19	2	46	
		19.6	34.8	41.3	4.3	34.1	
		45.0	33.3	33.9	18.2		
		6.7	11.9	14.1	1.5		
COLUMN		20	48	56	11	135	
TOTAL		14.8	35.6	41.5	8.1	100.0	

CHI SQUARE = 5.22881 WITH 6 DEGREES OF FREEDOM SIGNIFICANCE = 0.5148

CRAMER'S V = 0.13916

CONTINGENCY COEFFICIENT = 0.19310

	WITH Q131	DEPENDENT.	WITH Q160	DEPENDENT.
LAMBDA (ASYMMETRIC) = 0.	0.	0.	0.	0.

LAMBDA (SYMMETRIC) = 0.

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.02596 WITH Q131 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02143

KENDALL'S TAU B = -0.07362 SIGNIFICANCE = 0.1744

KENDALL'S TAU C = -0.06584 SIGNIFICANCE = 0.1744

GAMMA = -0.12330

SOMERS'S D (ASYMMETRIC) = -0.06523 WITH Q131 DEPENDENT.

SOMERS'S D (SYMMETRIC) = -0.07309

ETA = 0.07558 WITH Q131 DEPENDENT.

PEARSON'S R = -0.07497 SIGNIFICANCE = 0.1937

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NUMBER OF MISSING OBSERVATIONS = 5

G173 *****
***** GRADE *****

***** CRUSTABULATION *****
***** BY 0146 *****
***** U F *****
***** SOCIAL FOR RETENTION *****
***** PAGE *****

Q146					ROW TOTAL
COUNT	IA	B	C	D	
ROW PCT	COL PCT	TOT PCT	1.1	2.1	3.1
1.	23	1	36	1	5
	35.9	1	56.3	1	7.8
	53.5	1	48.0	1	23.8
	16.4	1	25.7	1	3.6
3.	20	1	39	1	16
	26.3	1	51.3	1	21.1
	46.5	1	52.0	1	76.2
	14.3	1	27.9	1	11.4
COLUMN TOTAL	43	75	21	1	140
	30.7	53.6	15.0	0.7	100.0

CHI SQUARE = 6.10751 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = 0.1065
 CRAMER'S V = 0.20887
 CONTINGENCY COEFFICIENT = 0.20445
 LAMBDA (ASYMMETRIC) = 0.04688 WITH Q173 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.0226
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.03494 WITH Q173 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02824
 KENDALL'S TAU B = 0.16696 SIGNIFICANCE = 0.0195
 KENDALL'S TAU C = 0.18163 SIGNIFICANCE = 0.0195
 GAMMA = 0.30479
 SOMER'S D (ASYMMETRIC) = 0.15235 WITH Q173 DEPENDENT.
 SOMER'S D (SYMMETRIC) = 0.16626
 ETA = 0.20887 WITH Q173 DEPENDENT.
 PEARSON'S R = 0.18618 SIGNIFICANCE = 0.0138
 = 0.18618 WITH Q146 DEPENDENT.
 = 0.18298 WITH Q146 DEPENDENT.
 = 0.02369 WITH Q146

 C175 AGE ***** CROSS TABULATION OF *****
 ***** BY Q156 ***** BEST ORGANIZATION *****
 ***** PAGE *****

Q156

COUNT		B		C		ROW TOTAL
ROW PCT	IA					
COL PCT	I	1.1	2.1	3.1		
TOT PCT	I	1.1	2.1	3.1		
1.	I	10	19	6		35
	I	28.6	54.3	17.1		25.0
	I	15.2	30.6	50.0		
	I	7.1	13.6	4.3		
2.	I	34	26	6		66
	I	51.5	39.4	9.1		47.1
	I	51.5	41.9	50.0		
	I	24.3	18.6	4.3		
3.	I	13	12	0		25
	I	52.0	48.0	0.		17.9
	I	19.7	19.4	0.		
	I	9.3	8.6	0.		
4.	I	8	3	0		11
	I	72.7	27.3	0.		7.9
	I	12.1	4.8	0.		
	I	5.7	2.1	0.		
5.	I	1	2	0		3
	I	33.3	66.7	0.		2.1
	I	1.5	3.2	0.		
	I	0.7	1.4	0.		
COLUMN TOTAL		66	62	12		140
		47.1	44.3	8.6		100.0

CHI SQUARE = 13.24875 WITH 8 DEGREES OF FREEDOM SIGNIFICANCE = 0.1036

CRAMER'S V = 0.21752

CONTINGENCY COEFFICIENT = 0.29403

LAMBDA (ASYMMETRIC) = 0.

WITH Q175

DEPENDENT.

LAMBDA (SYMMETRIC) = 0.06757

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.04466 WITH Q175

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.05202

KENDALL'S TAU B = -0.21475 SIGNIFICANCE = 0.0024

KENDALL'S TAU C = -0.20082 SIGNIFICANCE = 0.0024

GAMMA = -0.34184

SOMER'S D (ASYMMETRIC) = 0.00000

DEPENDENT. = 0.13514 WITH Q156

DEPENDENT. = 0.06227 WITH Q156

APPENDIX F

LEADERSHIP CROSSTABS

		COUNT					Q126			Q175			ROW TOTAL
		ROW	PCT	IA	B	C	D						
		COL	PCT	I									
		TOT	PCT	I	1.1	2.1	3.1	4.1					
A	1.	1	4	1	21	1	10	0	1	35			
			11.4	1	60.0	1	28.6	1	0.	25.0			
			33.3	1	36.8	1	14.7	1	0.				
			2.9	1	15.0	1	7.1	1	0.				
B	2.	1	3	1	27	1	33	1	3	66			
			4.5	1	40.9	1	50.0	1	4.5	47.1			
			25.0	1	47.4	1	48.5	1	100.0				
			2.1	1	19.3	1	23.6	1	2.1				
C	3.	1	4	1	6	1	15	1	0	25			
			16.0	1	24.0	1	60.0	1	0.	17.9			
			33.3	1	10.5	1	22.1	1	0.				
			2.9	1	4.3	1	10.7	1	0.				
D	4.	1	0	1	3	1	8	1	0	11			
			0.	1	27.3	1	72.7	1	0.	7.9			
			0.	1	5.3	1	11.8	1	0.				
			0.	1	2.1	1	5.7	1	0.				
E	5.	1	1	1	0	1	2	1	0	3			
			33.3	1	0.	1	66.7	1	0.	2.1			
			8.3	1	0.	1	2.9	1	0.				
			0.7	1	0.	1	1.4	1	0.				
COLUMN TOTAL		12	57	68	40.7	48.6	2.1	140					
		8.6	40.7	48.6	2.1	100.0							

CHI SQUARE = 21.37246 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0452

CRAMER'S V = 0.22558

CONTINGENCY COEFFICIENT = 0.36393

LAMBDA (ASYMMETRIC) = 0.01351 WITH Q175 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.08219

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.06606 WITH Q175 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.07415

KENDALL'S TAU B = 0.19289 SIGNIFICANCE = 0.0054

KENDALL'S TAU C = 0.16259 SIGNIFICANCE = 0.0054

GAMMA = 0.29927

SOMER'S D (ASYMMETRIC) = 0.20650 WITH Q175 DEPENDENT.

= 0.18019 WITH Q126 DEPENDENT

= 0.15276 WITH Q126 DEPENDENT.

= 0.06440 WITH Q126

Q178 *****
RATING *****
***** CRUSTALION OF *****
***** BY Q125 CENTRALIZED MANAGEMENT *****
***** PAGE

Q125									
COUNT	I	B	C	D	ROW	TOTAL			
ROW PCT	IA								
COL PCT	I								
TOT PCT	1	2	3	4					
1	16	30	15	0	61				
A	26.2	49.2	24.6	0.	44.5				
	69.6	40.5	41.7	0.					
	11.7	21.9	10.9	0.					
2	2	19	6	0	27				
B	7.4	70.4	22.2	0.	19.7				
	8.7	25.7	16.7	0.					
	1.5	13.9	4.4	0.					
3	5	25	15	4	49				
C	10.2	51.0	30.6	8.2	35.8				
	21.7	33.8	41.7	100.0					
	3.6	18.2	10.9	2.9					
COLUMN TOTAL	23	74	36	4	137				
	16.8	54.0	26.3	2.9	100.0				

RAW CHI SQUARE = 15.37092 WITH 6 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0176
 CRAMER'S V = 0.23685
 CONTINGENCY COEFFICIENT = 0.31761
 LAMEDA (ASYMMETRIC) = 0.05263 WITH Q178 DEPENDENT.
 LAMEDA (SYMMETRIC) = 0.02878
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.05713 WITH Q178 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.05609
 KENDALL'S TAU B = 0.19465. SIGNIFICANCE = 0.0058
 KENDALL'S TAU C = *****. SIGNIFICANCE = 0.0000
 GAMMA = 0.31262
 SOMERS'S D (ASYMMETRIC) = 0.19857 WITH Q178 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = 0.19461
 ETA = 0.28010 WITH Q178 DEPENDENT.
 PEARSON'S R = 0.23565 SIGNIFICANCE = 0.0028

NUMBER OF MISSING OBSERVATIONS = 3

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CHI SQUARE = 22.79704 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0067
 CRAMER'S V = 0.23298
 CONTINGENCY COEFFICIENT = 0.37421
 LAMBDA (ASYMMETRIC) = 0.05172 WITH Q121 DEPENDENT. = 0.05000 WITH Q128 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.05102
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.07212 WITH Q121 DEPENDENT. = 0.08557 WITH Q128
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.07827
 KENDALL'S TAU B = 0.25347 SIGNIFICANCE = 0.0006
 KENDALL'S TAU C = 0.17020 SIGNIFICANCE = 0.0006
 GAMMA = 0.45607
 SOMERS'S D (ASYMMETRIC) = 0.28477 WITH Q121 DEPENDENT. = 0.22561 WITH Q128 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = 0.25176
 ETA = 0.32736 WITH Q121 DEPENDENT. = 0.35365 WITH Q128 DEPENDENT.
 PEARSON'S R = 0.31243 SIGNIFICANCE = 0.0001

PAGE

1

Age Group	2006 (%)	2008 (%)
18-29	85	80
30-49	80	75
50-69	75	70
70+	70	65

UNC

SOM

ETA = 0

NUMEROUS OF INTERESTING OBSERVATIONS -

337 3713

Q126 FRUSTRATED CROSTABULATION OF IMPRESSION OF GENERALS PAGE

5510

COUNT	ROW PCT	COL PCT	TOT PCT	A	B	C	D	ROW TOTAL
0126								
1.	1.	0.	1.	1.	2.	3.	4.	12
		0.	1.	41.7	33.3	25.0	8.6	
		0.	1.	5.1	13.8	42.9		
		0.	1.	3.6	2.9	2.1		
2.	2.	2.	1.	32	19	4	57	
		3.5	1.	56.1	33.3	7.6	40.7	
		40.0	1.	32.3	65.5	57.1		
		1.4	1.	22.9	13.6	2.9		
3.	3.	3.	1.	59	6	0	68	
		4.4	1.	86.8	8.8	0.	48.6	
		60.0	1.	59.6	20.7	0.		
		2.1	1.	42.1	4.3	0.		
4.	4.	0.	1.	3	0	0	3	
		0.	1.	100.0	0.	0.	2.1	
		0.	1.	3.0	0.	0.		
		0.	1.	2.1	0.	0.		
COLUMN TOTAL		5	99	29	7	140		
		3.6	70.7	20.7	5.0	100.0		

CHI SQUARE = 30.83715 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0003

CRAMER'S V = 0.27096

CONTINGENCY COEFFICIENT = 0.42486

$$\text{CONTINGENCY COEFFICIENT} = 0.42486$$

$$\text{LAMBDA (ASYMMETRIC)} = 0.23611 \text{ WITH } 0$$

= 0. WITH Q155 DEPENDENT.

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.11096 WITH Q126
DEPENDENT.
= 0.13336 WITH Q155

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.12113

KENDALL'S TAU B = -0.38027 SIGNIFICANCE = 0.0000

KENDALL'S TAU C =
GAMMA = -0.65937

SOMERS'S D (ASYMMETRIC) = -0.43404 WITH Q126 DEPENDENT.

SOMERS'S D (SYMMETRIC) = -0.37697

ETA = 0.43352 WITH Q126 DEPENDENT.
DEFA8SON15 B = -0.41254 SYCA121CANCE

PEARSON'S R = -0.41256 SIGNIFICANCE = 0.0000

***** C R O S S T A B U L A T I O N O F ***** CAREER IRRITANTS *****
 Q140 RECEPTIVE TO SUGGESTIONS BY Q152 ***** PAGE

Q152

COUNT		B				C				D				ROW TOTAL
ROW PCT	IA	1.1				2.1				3.1				
COL PCT	I	1.1				2.1				3.1				
TOT PCT	I	1.1				2.1				3.1				
1.	I	0	I	1	I	3	I	2	I	6	I	4.4	I	
	I	0.	I	16.7	I	50.0	I	33.3	I	33.3	I	4.4	I	
	I	0.	I	3.8	I	4.3	I	5.4	I	5.4	I		I	
	I	0.	I	0.7	I	2.2	I	1.5	I	1.5	I		I	
2.	I	1	I	18	I	42	I	19	I	19	I	80	I	
	I	1.3	I	22.5	I	52.5	I	23.8	I	23.8	I	58.8	I	
	I	33.3	I	69.2	I	60.0	I	51.4	I	51.4	I		I	
	I	0.7	I	13.2	I	30.9	I	14.0	I	14.0	I		I	
3.	I	0	I	5	I	25	I	12	I	12	I	42	I	
	I	0.	I	11.9	I	59.5	I	28.6	I	28.6	I	30.9	I	
	I	0.	I	19.2	I	35.7	I	32.4	I	32.4	I		I	
	I	0.	I	3.7	I	18.4	I	8.8	I	8.8	I		I	
4.	I	2	I	2	I	0	I	4	I	4	I	8	I	
	I	25.0	I	25.0	I	0.	I	50.0	I	50.0	I	5.9	I	
	I	66.7	I	7.7	I	0.	I	10.8	I	10.8	I		I	
	I	1.5	I	1.5	I	0.	I	2.9	I	2.9	I		I	
COLUMN	3	26	70	37	27.2	136								
TOTAL	2.2	19.1	51.5	27.2	100.0									

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CHI SQUARE = 28.67514 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0007

CRAMER'S V = 0.26511

CONTINGENCY COEFFICIENT = 0.41729

LAMEDA (ASYMMETRIC) = 0.01786 WITH Q140 DEPENDENT. = 0.06061 WITH Q152 DEPENDENT.

LAMEDA (SYMMETRIC) = 0.04098

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.07866 WITH Q140 DEPENDENT. = 0.07026 WITH Q152

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.07422

KENDALL'S TAU B = 0.05337 SIGNIFICANCE = 0.2475

KENDALL'S TAU C = 0.04181 SIGNIFICANCE = 0.2475

GAMMA = 0.08841

SOMERS'S D (ASYMMETRIC) = 0.05025 WITH Q140 DEPENDENT. = 0.05668 WITH Q152 DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.05327

ETA = 0.24415 WITH Q140 DEPENDENT. = 0.14905 WITH Q152 DEPENDENT.

PEARSON'S R = 0.00132 SIGNIFICANCE = 0.4939

***** C R O S S T A B U L A T I O N O F *****
 Q135 AUTHORITY COMMENSURATE WITH RANK BY Q150 PROFESSIONALISM ***** PAGE

Q150

COUNT	ROW PCT	COL PCT	TOT PCT	A	B	C	D	ROW TOTAL
1.	1	1	1	1	1	1	1	4
	2.8	47.2	13	1	1	1	1	36
	50.0	32.7	17.8	1	1	1	1	25.7
	0.7	12.1	9.3	1	1	1	1	
2.	1	1	1	1	1	1	1	69
	1.4	40.6	52.2	1	1	1	1	49.3
	50.0	53.8	49.3	1	1	1	1	
	0.7	20.0	25.7	1	1	1	1	
3.	0	5	17	1	1	1	1	25
	0.	20.0	68.0	1	1	1	1	17.9
	0.	9.6	23.3	1	1	1	1	
	0.	3.6	12.1	1	1	1	1	
4.	0	2	7	1	1	1	1	10
	0.	20.0	70.0	1	1	1	1	7.1
	0.	3.8	9.6	1	1	1	1	
	0.	1.4	5.0	1	1	1	1	
COLUMN TOTAL	2	52	73	13	9.3	100.0		

CHI SQUARE = 10.45357 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.3150

CRAMER'S V = 0.15776

CONTINGENCY COEFFICIENT = 0.26359

LAMBDA (ASYMMETRIC) = 0.01408 WITH Q135 DEPENDENT. = 0.05970 WITH Q150 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.03623

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.03409 WITH Q135 DEPENDENT. = 0.04116 WITH Q150 DEPENDENT.

KENDALL'S TAU B = 0.16235 SIGNIFICANCE = 0.0166

KENDALL'S TAU C = 0.13347 SIGNIFICANCE = 0.0166

GAMMA = 0.25918

SOMERS'S D (ASYMMETRIC) = 0.17220 WITH Q135 DEPENDENT. = 0.15307 WITH Q150 DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.16207

ETA = 0.23595 WITH Q135 DEPENDENT. = 0.19589 WITH Q150 DEPENDENT.

PEARSON'S R = 0.16472 SIGNIFICANCE = 0.0259

Q178

RATING

CROSS TABULATION OF

CAREER IRRITANTS

BY Q152

PAGE 1

Q152

COUNT		ROW			
COL PCT I		C			
TOT PCT I		D			
		TOTAL			
Q178	1	1	2	3	4
	2	1	17	33	10
	3	2	27.4	53.2	16.1
	4	66.7	63.0	45.8	27.0
A	1	1.4	12.2	23.7	7.2
	2	0	6	14	7
	3	0	22.2	51.9	25.9
	4	0	22.2	19.4	18.9
B	1	0	4.3	10.1	5.0
	2	1	4	25	20
	3	2.0	8.0	50.0	40.0
	4	33.3	14.8	34.7	54.1
C	1	0.7	2.9	18.0	14.4
	2	1	1	1	1
	3	1	1	1	1
	4	1	1	1	1
TOTAL		3	27	72	37
TOTAL		2.2	19.4	51.8	26.6
TOTAL					139
TOTAL					100.0

RAW CHI SQUARE = 12.41131 WITH 6 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0534

CRAMER'S V = 0.27129

CONTINGENCY COEFFICIENT = 0.25631

LAMBDA (ASYMMETRIC) = 0.12937 WITH Q178 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.06944

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.04694 WITH Q178 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.04588

KENDALL'S TAU B = 0.25522. SIGNIFICANCE = 0.0004

KENDALL'S TAU C = *****. SIGNIFICANCE = 0.0000

GAMMA = 0.39912

SOMER'S D (ASYMMETRIC) = 0.25752 WITH Q178 DEPENDENT.

SOMER'S D (SYMMETRIC) = 0.25521

ETA = 0.28713 WITH Q178 DEPENDENT.

PEARSON'S R = 0.27620 SIGNIFICANCE = 0.0005

NUMBER OF MISSING OBSERVATIONS = 1

APPENDIX G

RETENTION CROSSTABS

Q153						
COUNT	ROW	PCT	IA	B	C	D
COL	PCT	I				
TOT	PCT	I	1.1	2.1	3.1	4.1
1.	I	I	1	15	33	15
	I	1.6	I	23.4	51.6	23.4
	I	50.0	I	36.6	42.3	78.9
	I	0.7	I	10.7	23.6	10.7
3.	I	I	I	26	45	4
	I	1.3	I	34.2	59.2	5.3
	I	50.0	I	63.4	57.7	21.1
	I	0.7	I	18.6	32.1	2.9
COLUMN		2	41	78	19	140
TOTAL		1.4	29.3	55.7	13.6	100.0

```
CHI SQUARE = 10.21225 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = 0.0168
CRAMER'S V = 0.27008
```

CONTINGENCY COEFFICIENT = 0.26074

LAMEGA (ASYMMETRIC) = 0.17188 WITH Q173 DEPENDENT.
WITH Q153 DEPENDENT.

LAMÉDA (SYMMETRIC) = 0.08730

UNCERTAINTY COEFFICIENT (ASYM

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.04434

KENDALL'S TAU B = -0.19767 SIGNIFICANCE = 0.0073

KEYBALL'S TAU C = -0.21306 SIGNIFICANCE = 0.0073

$$\text{GAMMA} = -0.35656$$

SOMERS'S D (ASYMMETRIC) = -0.18204 WITH Q173 DEPENDENT.

SOMERS'S D (SYMMETRIC) = -0.19700

ETA = C.27008 WITH Q173 DEPENDENT.

PEARSON'S R = -0.21102 SIGNIFICANCE = 0.0062

[illegible]

100

***** Q175 AGE ***** Q175 OWN MOTIVATION ***** PAGE

		Q162				ROW TOTAL	
COUNT							
ROW	PCT	A	B	C	D	ROW	TOTAL
COL	PCT						
TOT	PCT	1.1	2.1	3.1	4.1		
Q175	1.	3	17	15	0	35	
		8.6	48.6	42.9	0.	25.0	
		18.8	23.3	31.3	0.		
		2.1	12.1	10.7	0.		
A	2.	6	38	21	1	66	
		9.1	57.6	31.8	1.5	47.1	
		37.5	52.1	43.8	33.3		
		4.3	27.1	15.0	0.7		
B	3.	4	11	9	1	25	
		16.0	44.0	36.0	4.0	17.9	
		25.0	15.1	18.8	33.3		
		2.9	7.9	6.4	0.7		
C	4.	3	5	3	0	11	
		27.3	45.5	27.3	0.	7.9	
		18.8	6.8	6.3	0.		
		2.1	3.6	2.1	0.		
D	5.	0	2	0	1	3	
		0.	66.7	0.	33.3	2.1	
		0.	2.7	0.	33.3		
		0.	1.4	0.	0.7		
E	TOTAL	16	73	48	3	140	
		11.4	52.1	34.3	2.1	100.0	

CHI SQUARE = 21.97897 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0378
 CRAMER'S V = 0.22876
 CONTINGENCY COEFFICIENT = 0.36836
 LAMBDA (ASYMMETRIC) = 0. WITH Q175 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.03746 WITH Q175 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.04155
 KENDALL'S TAU B = -0.06630 SIGNIFICANCE = 0.1888
 KENDALL'S TAU C = -0.05619 SIGNIFICANCE = 0.1888
 GAMMA = -0.10225

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(11)

CHRAI.

CONT

LAME

LAMÉ

UNCE

UNCE

KENN

KENCO

GAM:-

SUMS

SUMS

ETA

PEAR

BY J169

COUNT	ROW	PCT	IA	B	C	D	E	ROW	TOTAL
COL	PCT	I	1	2	3	4	I		
1	1	1	1	2	3	4	5	77	
	1	1	62	7	7	7	0	55.0	
	1	1.3	30.5	9.1	9.1	9.1	0.		
	1	14.3	62.6	50.0	43.8	43.8	0.		
	1	0.7	44.3	5.0	5.0	5.0	0.		
2	1	0	13	5	5	4	0	22	
	1	0.	54.1	22.7	18.2	18.2	0.	15.7	
	1	0.	13.1	35.7	25.0	25.0	0.		
	1	0.	9.3	3.6	2.9	2.9	0.		
3	1	3	8	0	2	2	2	15	
	1	20.0	53.3	0.	13.3	13.3	13.3	10.7	
	1	42.9	8.1	0.	12.5	12.5	50.0		
	1	2.1	5.7	0.	1.4	1.4	1.4		
4	1	3	16	2	3	3	2	26	
	1	11.5	61.5	7.7	11.5	11.5	7.7	18.6	
	1	42.9	16.2	14.3	18.8	18.8	50.0		
	1	2.1	11.4	1.4	2.1	2.1	1.4		
COLUMN	7	99	14	16	16	16	4	140	
TOTAL	5.0	70.7	10.0	11.4	2.9	2.9	2.9	100.0	

RAW CHI SQUARE = 31.87808 WITH 12 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0014

CRAMER'S V = 0.27550

CONTINGENCY COEFFICIENT = 0.43066

$$\text{LAMBDA (ASYMMETRIC)} = 0.05349 \text{ WITH Q179}$$
$$\text{LAMBDA (SYMMETRIC)} = 0.03840$$

UNCERTAINTY COEFFICIENT (ASYM)

UNCERTAINTY COEFFICIENT (SYMP)

KENDALL'S TAU B = 0.04795.

KENCALL'S TAU C = 28-08541

GAMMA = 0.07876

SCMERS'S D (ASYMMETRIC) =

SCHEMERS' D (ASYMMETRIC) = 0.00

35MERS 30 (SYMMEIRIC) = 0.00
EIA = 0.34336 WITH 0170

PEARSON'S R = 0.34330 WITH 01/9

PEARSON'S $R = 0.08960$ SIGNIF.

***** RETENTION MORE TALK ***** C R O S S T A B U L A T I O N O F ***** RETENTION OF QUALITY ***** PAGE

Q161

COUNT		Q122				ROW TOTAL	
ROW PCT	JA	B	C	D			
COL PCT	1.1	2.1	3.1	4.1			
TOT PCT	1.1	2.1	3.1	4.1			
1.	1	1	0	0	2	1.4	
	50.0	50.0	0.	0.			
	1.2	1.9	0.	0.			
	0.7	0.7	0.	0.			
2.	3	2	1	0	6	4.3	
	50.0	33.3	16.7	0.			
	3.6	3.8	33.3	0.			
	2.1	1.4	0.7	0.			
3.	19	34	2	1	56	40.0	
	33.9	60.7	3.6	1.8			
	22.9	64.2	66.7	100.0			
	13.6	24.3	1.4	0.7			
4.	60	16	0	0	76	54.3	
	78.9	21.1	0.	0.			
	72.3	30.2	0.	0.			
	42.9	11.4	0.	0.			
COLUMN	83	53	3	1	140	100.0	
TOTAL	59.3	37.9	2.1	0.7			

CHI SQUARE = 34.26442 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0001

CRAMER'S V = 0.28563

CONTINGENCY COEFFICIENT = 0.44342

LAMBDA (ASYMMETRIC) = 0.32813 WITH Q122 DEPENDENT, = 0.26316 WITH Q161 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.29752

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.13252 WITH Q122 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.14025

KENDALL'S TAU B = -0.41060 SIGNIFICANCE = 0.0000

KENDALL'S TAU C = -0.28667 SIGNIFICANCE = 0.0000

GAMMA = -0.66530

SOMERS'S D (ASYMMETRIC) = -0.42600 WITH Q122 DEPENDENT.

SOMERS'S D (SYMMETRIC) = -0.41032

ETA = 0.37728 WITH Q122 DEPENDENT.

PEARSON'S R = 0.36730 SIGNIFICANCE = 0.0000

= -0.39576 WITH Q161

= 0.44207 WITH Q161

DEPENDENT.

DEPENDENT.

= 0.14894 WITH Q161

Q137

COUNT					ROW				
PCT					PCT				
COL					COL				
TOT					TOT				
PCT					PCT				
PCT					PCT				
PCT					PCT				
PCT					PCT				
PCT					PCT				
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***** C R O S S T A B U L A T I O N O F *****
 Q163 RETENTION BY Q171 EXTERNAL VS INTERNAL FACTORS
 ***** PAGE

Q171									
COUNT		I		IA		B		ROW TOTAL	
ROW PCT		I		IA		B		ROW TOTAL	
COL PCT		I		IA		B		ROW TOTAL	
TOT PCT		I		IA		B		ROW TOTAL	
Q163	A	1.	1	1	1	1.1	2.1	3	2.1
		33.3	1	66.7	1				
		2.9	1	1.9	1				
		0.7	1	1.4	1				
	B	2.	12	1	6			18	12.9
		66.7	1	33.3	1				
		34.3	1	5.7	1				
		8.6	1	4.3	1				
	C	3.	18	1	65			83	59.3
		21.7	1	78.3	1				
		51.4	1	61.9	1				
		12.9	1	46.4	1				
	D	4.	4	1	32			36	25.7
		11.1	1	88.9	1				
		11.4	1	30.5	1				
		2.9	1	22.9	1				
COLUMN		35	105					140	100.0
TOTAL		25.0	75.0						

156

156

CHI SQUARE = 20.96743 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = 0.0001
 CRAMER'S V = 0.38700
 CONTINGENCY COEFFICIENT = 0.36091
 LAMBDA (ASYMMETRIC) = 0.36091 WITH Q163 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.06522
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.06679 WITH Q163 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.08567
 KENDALL'S TAU B = 0.30648 SIGNIFICANCE = 0.0001
 KENDALL'S TAU C = 0.28224 SIGNIFICANCE = 0.0001
 GAMMA = 0.60052
 SOMER'S D (ASYMMETRIC) = 0.37633 WITH Q163 DEPENDENT.
 SOMER'S D (SYMMETRIC) = 0.30013
 ETA = 0.31479 WITH Q163 DEPENDENT.
 PEARSON'S R = 0.31479 SIGNIFICANCE = 0.0001
 = 0.17143 WITH Q171 DEPENDENT.
 = 0.11940 WITH Q171 DEPENDENT.
 = 0.24959 WITH Q171 DEPENDENT.
 = 0.38700 WITH Q171 DEPENDENT.

***** C R O S S T A B U L A T I O N O F ***** RETENTION VS PROMOTION *****
 Q151 ***** BY Q170 *****

Q170

		COUNT		Q170		ROW	
		ROW PCT	IA	B	TOTAL	ROW	TOTAL
		COL PCT	IA	B	TOTAL	ROW	TOTAL
		TOT PCT	IA	B	TOTAL	ROW	TOTAL
Q151	A	1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
B		1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
C		1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
D		1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
		1.1	2.1	1.1	2.1	4	2.9
COLUMN		32	107	139			
TOTAL		23.0	77.0	100.0			

157

CHI SQUARE = 11.33278 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = 0.0101
 CRAMER'S V = 0.28554
 CONTINGENCY COEFFICIENT = 0.27456
 LAMBDA (ASYMMETRIC) = 0.06154 WITH Q151 DEPENDENT, = 0. WITH Q170 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.04124
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.03937 WITH Q151 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.05237
 KENDALL'S TAU B = -0.26316 SIGNIFICANCE = 0.0006
 KENDALL'S TAU C = -0.24388 SIGNIFICANCE = 0.0006
 GAMMA = -0.54236
 SOMERS'S D (ASYMMETRIC) = -0.34404 WITH Q151 DEPENDENT. = -0.20130 WITH Q170 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = -0.25399
 ETA = 0.26796 WITH Q151 DEPENDENT. = 0.28554 WITH Q170 DEPENDENT.
 PEARSON'S R = -0.26796 SIGNIFICANCE = 0.0007

NUMBER OF MISSING OBSERVATIONS = 1

***** C R O S S T A B U L A T I O N O F *****
 Q173 GRADE BY Q170 RETENTION VS PROMOTION

		Q170			
		COUNT	I	ROW	TOTAL
		ROW PCT	IA	B	
		COL PCT	I		
		TOT PCT	I	1.1	2.1
Q173	A	1.	1	19	45
			1	29.7	70.3
			1	59.4	41.7
			1	13.6	32.1
C		3.	1	13	63
			1	17.1	82.9
			1	40.6	58.3
			1	9.3	45.0
TOTAL		32	108	77.1	140
TOTAL		22.9	77.1	100.0	

CORRECTED CHI SQUARE = 2.44658 WITH 1 DEGREE OF FREEDOM. SIGNIFICANCE = 0.1178
 RAO CHI SQUARE = 3.11935 WITH 1 DEGREE OF FREEDOM. SIGNIFICANCE = 0.0774
 PHI = 0.14927
 CONTINGENCY COEFFICIENT = 0.14763
 LAMEDA (ASYMMETRIC) = 0.09375 WITH Q173 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.06250
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.01614 WITH Q173 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.01814
 KENDALL'S TAU B = 0.14927 SIGNIFICANCE = 0.0392
 KENDALL'S TAU C = 0.12490 SIGNIFICANCE = 0.0392
 GAMMA = 0.34343
 SOMERS'S D (ASYMMETRIC) = 0.17708 WITH Q173 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = 0.14712
 ETA = 0.14927 WITH Q173 DEPENDENT.
 PEARSON'S R = 0.14927 SIGNIFICANCE = 0.0392

WITH Q170 DEPENDENT.
 = 0.02070 WITH Q170
 = 0.12582 WITH Q170 DEPENDENT.
 = 0.14927 WITH Q170 DEPENDENT.

APPENDIX H

CAREER INTENTIONS CROSSTABS

Q164

COUNT		B		C		D		E		ROW TOTAL
ROW PCT	IA	1	2	3	4	5	6	7	8	
COL PCT	I	1	2	3	4	5	6	7	8	
TOT PCT	I	1	2	3	4	5	6	7	8	

1.	I	7	I	11	I	39	I	4	I	3
	I	10.9	I	17.2	I	60.9	I	6.3	I	4.7
	I	63.6	I	40.7	I	53.4	I	20.0	I	33.3
	I	5.0	I	7.9	I	27.9	I	2.9	I	2.1

3.	I	4	I	16	I	34	I	16	I	6
	I	5.3	I	21.1	I	44.7	I	21.1	I	7.9
	I	36.4	I	59.3	I	46.6	I	80.0	I	66.7
	I	2.9	I	11.4	I	24.3	I	11.4	I	4.3

COLUMN		11		27		73		20		9
TOTAL		7.9		19.3		52.1		14.3		6.4

										140
										100.0

CHI SQUARE = 9.32652 WITH 4 DEGREES OF FREEDOM SIGNIFICANCE = 0.0534

CRAMER'S V = 0.25810

CONTINGENCY COEFFICIENT = 0.24991

LAMBDA (ASYMMETRIC) = 0.12500 WITH Q173 DEPENDENT.

LAMEDA (SYMMETRIC) = 0.06107

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.05077 WITH Q173 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.03499

KENDALL'S TAU B = 0.13405 SIGNIFICANCE = 0.0438

KENDALL'S TAU C = 0.15347 SIGNIFICANCE = 0.0438

GAMMA = 0.23124

SOMERS'S D (ASYMMETRIC) = 0.11623 WITH Q173 DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.13270

ETA = 0.25810 WITH Q173 DEPENDENT.

PEARSON'S R = 0.15063 SIGNIFICANCE = 0.0378

WITH Q164 DEPENDENT.

= 0.02670 WITH Q164

= 0.15461 WITH Q164 DEPENDENT.

DEPENDENT.

9194

COUNT	I	ROW	PCT	IA	D	C	D	E	ROW
COL	PCT	I							TOTAL
Q178		1	1	1	3	1	4	1	5
		1	7	1	33	1	6	1	2
A		1	11.1	1	23.8	1	52.4	1	9.5
		1	63.6	1	55.6	1	45.2	1	30.0
		1	5.0	1	10.7	1	23.6	1	4.3
		-	-	-	-	-	-	-	-
		2	1	1	3	1	16	1	4
		1	3.7	1	11.1	1	59.3	1	14.8
		1	9.1	1	11.1	1	21.9	1	20.0
		1	0.7	1	2.1	1	11.4	1	2.9
		-	-	-	-	-	-	-	-
		3	1	3	9	1	24	1	10
		1	6.0	1	18.0	1	48.0	1	20.0
		1	27.3	1	33.3	1	32.9	1	50.0
		1	2.1	1	6.4	1	17.1	1	7.1
		-	-	-	-	-	-	-	-
C		11	27	73	52.1	20	9	14.3	100.0
161		7.9	19.3	52.1	20	9	14.3	100.0	100.0

RAW CHI SQUARE = 8.03446 WITH 8 DEGREES OF FREEDOM. SIGNIFICANCE = 0.4301

CRAPER'S V = 0.16939

CONTINGENCY COEFFICIENT = 0.23297

LAMBDA (ASYMMETRIC) = 0.07792 WITH Q178
DEPENDENT.
= 0.
WITH Q164
DEPENDENT.

$$\text{LAMBDA (SYMMETRIC)} = 0.04157$$

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.02833 WITH Q178 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02513

KENDALL'S TAU B = 0.16024. SIGNIFICANCE = 0.0158

WENDALL'S TAU C = *****.
SIGNIFICANCE = 0.0000

GAMMA = 3.24702

SOMERS'S D (ASYMMETRIC) = 0.15688 WITH Q178 DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.16021

FT4 = J.18761 WITH Q178
DEPENDENT.
= 0.21759 WITH Q164
DEPENDENT.

PEARSON'S R = 0.17666 SIGNIFICANCE = 0.0184

CROSS TABULATION OF									
BY Q165 CAREER GOAL									
Q165									
COUNT	1	2	3	4	5	6	7	8	9
ROW PCT	1A	1B	1C	1D	1E	1F	1G	1H	1I
COL PCT	1A	1B	1C	1D	1E	1F	1G	1H	1I
TOT PCT	1A	1B	1C	1D	1E	1F	1G	1H	1I
1	1	0	1	17	1	36	1	10	1
2	1	0	1	27.0	1	57.1	1	15.9	1
3	1	0	1	31.5	1	54.5	1	52.6	1
4	1	0	1	12.1	1	25.7	1	7.1	1
5	1	0	1	13	1	10	1	4	1
6	1	0	1	48.1	1	37.0	1	14.8	1
7	1	0	1	24.1	1	15.2	1	21.1	1
8	1	0	1	9.3	1	7.1	1	2.9	1
9	1	0	1	24	1	20	1	5	1
10	1	0	1	48.0	1	40.0	1	10.0	1
11	1	0	1	44.4	1	30.3	1	26.3	1
12	1	0	1	17.1	1	14.3	1	3.6	1
13	1	0	1	54	1	66	1	19	1
14	1	0	1	38.6	1	47.1	1	13.6	1
15	1	0	1	140	1	140	1	100.0	1

ROW CHI SQUARE = 8.99637 WITH 6 DEGREES OF FREEDOM. SIGNIFICANCE = 0.1738
 CRAMER'S V = 0.17925
 CONTINGENCY COEFFICIENT = 0.24572
 LAMBDA (ASYMMETRIC) = 0.10390 WITH Q178 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.09934
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.03217 WITH Q178 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.03243
 KENDALL'S TAU B = -0.18815. SIGNIFICANCE = 0.0072
 GAMMA = -0.29612
 SOMER'S D (ASYMMETRIC) = -0.19154 WITH Q178 DEPENDENT.
 SOMER'S D (SYMMETRIC) = -0.18912
 ETA = 0.22963 WITH Q178 DEPENDENT.
 PEARSON'S R = -0.20113 SIGNIFICANCE = 0.0086

Q164

COUNT		CROSS TABULATION					COUNT	
ROW	PCT	IA	B	C	D	E	ROW	TOTAL
COL	PCT							
TOT	PCT	1	2	3	4	5		
Q179	1	1	1	3	4	5		
	1	5	17	37	13	5		77
A	1	6.5	22.1	48.1	16.9	6.5		55.0
	1	45.5	63.0	50.7	65.0	55.6		
	1	3.6	12.1	26.4	9.3	3.6		
	1	1	6	12	3	0		22
B	1	4.5	27.3	54.5	13.6	0.		15.7
	1	9.1	22.2	16.4	15.0	0.		
	1	0.7	4.3	8.6	2.1	0.		
	1	1	1	10	2	1		15
C	1	6.7	6.7	66.7	13.3	6.7		10.7
	1	9.1	3.7	13.7	10.0	11.1		
	1	0.7	0.7	7.1	1.4	0.7		
	1	4	3	14	2	3		26
	1	15.4	11.5	53.8	7.7	11.5		18.6
	1	36.4	11.1	19.2	10.0	33.3		
	1	2.9	2.1	10.0	1.4	2.1		
	1	11	27	73	20	9		140
	1	7.9	19.3	52.1	14.3	6.4		100.0

RAJ CHI SQUARE = 10.01387 WITH 12 DEGREES OF FREEDOM. SIGNIFICANCE = 0.6147

CRAMER'S V = 0.15441

CONTINGENCY COEFFICIENT = 0.25837

LAMBDA (ASYMMETRIC) = 0. WITH Q179 DEPENDENT. = 0. WITH Q164 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.03487 WITH Q179 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.03291

KENDALL'S TAU B = -0.01031. SIGNIFICANCE = 0.4441

GAMMA = -0.01618

SOMERS'S D (ASYMMETRIC) = -0.01005 WITH Q179 DEPENDENT. = -0.01005 WITH Q164 DEPENDENT.

SOMERS'S D (SYMMETRIC) = -0.01031

ETA = 0.1403 WITH Q179 DEPENDENT. = 0.08413 WITH Q164 DEPENDENT.

PEARSON'S R = -0.01138 SIGNIFICANCE = 0.4469

 C173 GRADE ***** C R O S S T A B U L A T I O N O F ***** CAREER GOAL *****
 ***** BY Q165 *****
 ***** PAGE

Q165									
COUNT I					ROW				
ROW	PCT	IA	B	C	D	ROW	TOTAL		
COL	PCT	I	1.1	2.1	3.1	4.1			
TOT	PCT	I	1.1	2.1	3.1	4.1			

1.	I	0	I	12	I	42	I	10	I
	I	0.	I	18.8	I	65.6	I	15.6	I
	I	0.	I	22.2	I	63.6	I	52.6	I
	I	0.	I	8.6	I	30.0	I	7.1	I

3.	I	1	I	42	I	24	I	9	I
	I	1.3	I	55.3	I	31.6	I	11.8	I
	I	100.0	I	77.8	I	36.4	I	47.4	I
	I	0.7	I	30.0	I	17.1	I	6.4	I

COLUMN					TOTAL				
			1	54	66	19	140		
		0.7	38.6	47.1	13.6	100.0			

 Q173 GRADE ***** C K U S T A B U L A T I O N O F *****
 ***** BY Q118 U-6 CARLEK GUAL ***** PAGE

Q118

COUNT					ROW					
I					TOTAL					
ROW	PCT	IA	B	C	D					
COL	PCT	I	1.1	2.1	3.1	4.1				
TOT	PCT	I								
1.	I	1	14	34	13	62				
	I	1.6	22.6	54.8	21.0	44.9				
	I	5.0	35.9	57.6	65.0					
	I	0.7	10.1	24.6	9.4					
-	I									
3.	I	19	25	25	7	76				
	I	25.0	32.9	32.9	9.2	55.1				
	I	95.0	64.1	42.4	35.0					
	I	13.8	18.1	18.1	5.1					
-	I									
COLUMN		20	39	59	20	138				
TOTAL		14.5	28.3	42.8	14.5	100.0				

Q173

A

C

165

CHI SQUARE = 21.27411 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = 0.0001
 CRAMER'S V = 0.39263
 CONTINGENCY COEFFICIENT = 0.36547
 LAMBDA (ASYMMETRIC) = 0.24194 WITH Q173 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.10638
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.13015 WITH Q173 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.09099
 KENDALL'S TAU B = -0.34303 SIGNIFICANCE = 0.0000
 KENDALL'S TAU C = -0.40244 SIGNIFICANCE = 0.0000
 GAMMA = -0.56320
 SOMERS'S D (ASYMMETRIC) = -0.28938 WITH Q173 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = -0.33813
 ETA = 0.39263 WITH Q173 DEPENDENT.
 PEARSON'S R = -0.37715 SIGNIFICANCE = 0.0000

 Q173 GRADE ***** CROSS TABULATION OF *****
 ***** BY Q149 ***** PROMOTION TO U-7 *****
 ***** PAGE *****

Q149

COUNT		B				C		D		ROW TOTAL
ROW PCT	IA	1	2	3	4	5	6	7	8	
COL PCT	I	1	2	3	4	5	6	7	8	
TOT PCT	I	1	2	3	4	5	6	7	8	
1.	I	7	29	24	3					63
	I	11.1	46.0	38.1	4.8					45.7
A	I	53.8	58.0	40.0	20.0					
	I	5.1	21.0	17.4	2.2					
	I									
3.	I	6	21	36	12					75
	I	8.0	28.0	48.0	16.0					54.3
C	I	46.2	42.0	60.0	80.0					
	I	4.3	15.2	26.1	8.7					
	I									
COLUMN		13	50	60	15					138
TOTAL		9.4	36.2	43.5	10.9					100.0

166

CHI SQUARE = 8.17526 WITH 3 DEGREES OF FREEDOM SIGNIFICANCE = 0.0425

CRAMER'S V = 0.24339

CONTINGENCY COEFFICIENT = 0.23649

LAMBDA (ASYMMETRIC) = 0.14286 WITH Q173 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.09929

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.04476 WITH Q173 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.03277

KENDALL'S TAU B = 0.21157 SIGNIFICANCE = 0.0041

KENDALL'S TAU C = 0.24197 SIGNIFICANCE = 0.0041

GAMMA = 0.36295

SOMER'S D (ASYMMETRIC) = 0.18359 WITH Q173 DEPENDENT.

SOMER'S D (SYMMETRIC) = 0.20945

ETA = 0.24339 WITH Q173 DEPENDENT.

PEARSON'S R = 0.21887 SIGNIFICANCE = 0.0050

NUMBER OF MISSING OBSERVATIONS = 2

= 0.06410 WITH Q149 DEPENDENT.

= 0.02585 WITH Q149

= 0.24361 WITH Q149 DEPENDENT

= 0.21887 WITH Q149 DEPENDENT.

Q120

COUNT		B		C		D		ROW
ROW PCT	IA							TOTAL
COL PCT	I	1.1	2.1	3.1	4.1			
TOT PCT	I	1.1	2.1	3.1	4.1			
1.	I	1	8	14	12			35
	I	2.9	22.9	40.0	34.3			25.0
	I	11.1	18.6	24.1	40.0			
	I	0.7	5.7	10.0	8.6			
2.	I	5	18	26	17			66
	I	7.6	27.3	39.4	25.8			47.1
	I	55.6	41.9	44.8	56.7			
	I	3.6	12.9	18.6	12.1			
3.	I	0	10	14	1			25
	I	0.	40.0	56.0	4.0			17.9
	I	0.	23.3	24.1	3.3			
	I	0.	7.1	10.0	0.7			
4.	I	1	6	4	0			11
	I	9.1	54.5	36.4	0.			7.9
	I	11.1	14.0	6.9	0.			
	I	0.7	4.3	2.9	0.			
5.	I	2	1	0	0			3
	I	66.7	33.3	0.	0.			2.1
	I	22.2	2.3	0.	0.			
	I	1.4	0.7	0.	0.			
COLUMN		9	43	58	30			140
TOTAL		6.4	30.7	41.4	21.4			100.0

CHI SQUARE = 35.68853 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0004

CRAMER'S V = 0.29150

CONTINGENCY COEFFICIENT = 0.45071

LAMBDA (ASYMMETRIC) = 0. WITH Q175 DEPENDENT. = 0.04878 WITH Q120 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.02564

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.08680 WITH Q175 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.08875

KENDALL'S TAU B = -0.25557 SIGNIFICANCE = 0.0002

KENDALL'S TAU C = -0.23184 SIGNIFICANCE = 0.0002

GAMMA = -0.37270

SUMMARY'S O (ASYMMETRIC) = -0.25421 WITH Q175 DEPENDENT.

SUMMARY'S O (ASYMMETRIC) = -0.25694 WITH Q120 DEPENDENT.

 Q177 YEAR COMMISSIONER

 C R U S S T A B U L A T I O N U F *****
 BY U.18 U-6 CAREER GUAL *****

 PAGE 1

Q118

COUNT									
ROW	PCT	IA	B	C	D	ROW TOTAL			
COL	PCT	IA	B	C	D				
101	PCT	IA	B	C	D				
Q177	1.	1	1.1	2.1	3.1	4.1			
A	1.	1	2	1	1	8	1	1	12
		1	16.7	1	8.3	1	66.7	1	8.3
	1	1	10.0	1	2.6	1	13.8	1	5.0
	1	1	1.5	1	0.7	1	5.8	1	0.7
	-	-	-	-	-	-	-	-	-
B	2.	1	0	1	7	8	1	6	21
	1	1	0.	1	33.3	1	38.1	1	28.6
	1	1	0.	1	17.9	1	13.8	1	30.0
	1	1	0.	1	5.1	1	5.8	1	4.4
	-	-	-	-	-	-	-	-	-
C	3.	1	2	1	9	12	1	3	26
	1	1	7.7	1	34.6	1	46.2	1	11.5
	1	1	10.0	1	23.1	1	20.7	1	15.0
	1	1	1.5	1	6.6	1	8.8	1	2.2
	-	-	-	-	-	-	-	-	-
D	4.	1	7	1	9	2	1	2	20
	1	1	35.0	1	45.0	1	10.0	1	10.0
	1	1	35.0	1	23.1	1	3.4	1	10.0
	1	1	5.1	1	6.6	1	1.5	1	1.5
	-	-	-	-	-	-	-	-	-
E	5.	1	7	1	5	14	1	1	27
	1	1	25.9	1	18.5	1	51.9	1	3.7
	1	1	35.0	1	12.8	1	24.1	1	5.0
	1	1	5.1	1	3.6	1	10.2	1	0.7
	-	-	-	-	-	-	-	-	-
F	6.	1	1	1	5	10	1	4	20
	1	1	5.0	1	25.0	1	50.0	1	20.0
	1	1	5.0	1	12.8	1	17.2	1	20.0
	1	1	0.7	1	3.6	1	7.3	1	2.9
	-	-	-	-	-	-	-	-	-
G	7.	1	1	1	3	1	1	0	5
	1	1	20.0	1	60.0	1	20.0	1	0.
	1	1	5.0	1	7.7	1	1.7	1	0.
	1	1	0.7	1	2.2	1	0.7	1	0.
	-	-	-	-	-	-	-	-	-
COLUMN TOTAL		20	39	58	20	137			137
		14.6	28.5	42.3	14.6	100.0			100.0

(CONTINUED)

 G177 YEAR COMMISSIONED *****
 CRUSTALATION OF *****
 BY U118 *****
 0-6 CAREER GOAL *****
 ***** PAGE *****

G118									
COUNT	ROW	PCT	IA	B	C	D	KUM	TOTAL	
8.	I	0.	0	1	1	1	3	2.2	
	I	0.	0.	0.	33.3	66.7			
	I	0.	0.	0.	1.7	10.0			
	I	0.	0.	0.	0.7	1.5			
	-	-	-	-	-	-			
9.	I	0	0	1	1	0	1	0.7	
	I	0.	0.	0.	100.0	0.			
	I	0.	0.	0.	1.7	0.			
	I	0.	0.	0.	0.7	0.			
	-	-	-	-	-	-			
10.	I	0	0	1	1	1	2	1.5	
	I	0.	0.	0.	50.0	50.0			
	I	0.	0.	0.	1.7	5.0			
	I	0.	0.	0.	0.7	0.7			
	-	-	-	-	-	-			
COLUMN	20	39	58	20	137				
TOTAL	14.6	28.5	42.3	14.6	100.0				

CHI SQUARE = 46.34840 WITH 27 DEGREES OF FREEDOM SIGNIFICANCE = 0.0117

CRAIGER'S $V = 0.33581$

CONTINGENCY COEFFICIENT = 0.50278

LAMEDA (ASYMMETRIC) = 0.08182 WITH Q177 DEPENDENT.

LAMBLDA (SYMMETRIC) = 0.10053

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.09197 WITH Q177

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.11205

KENDALL'S TAU B = -0.02756 SIGNIFICANCE = 0.3457

KENDALL'S TAU C = -0.02827 SIGNIFICANCE = 0.3457

GAMMA = -0.03528

SOMERS'S D (ASYMMETRIC) = -0.03042 WITH 1177

SOMERS'S D (SYMMETRIC) = -0.02743

ETA = 0.05906 WITH Q177 DEPENDENT.

PEAKSON'S $R = 0.00833$ SIGNIFICANCE = 0.4615

NUMBER OF MISSING OBSERVATIONS = 3

3178 RATING

BY Q154

Q154

COUNT		ROW		PCT		IA		B		C		D		ROW	
COL		PCT		I		I		I		I		I		TOTAL	
Q178	TOT		PCT		I		I		I		I		I		A
	1		I		0		I		4		I		13		
	I		0.		I		6.3		I		73.0		I		
	I		0.		I		15.4		I		52.3		I		
S	I		0.		I		2.9		I		32.9		I		B
	-I		I		I		I		I		I		I		
	2		I		1		I		8		I		14		
	I		3.7		I		29.6		I		51.9		I		
C	I		50.0		I		30.8		I		15.9		I		C
	I		0.7		I		5.7		I		10.0		I		
	-I		I		I		I		I		I		I		
	3		I		1		I		14		I		28		
170	I		2.0		I		28.0		I		56.0		I		D
	I		50.0		I		53.8		I		31.8		I		
	I		0.7		I		10.0		I		20.0		I		
	-I		I		I		I		I		I		I		
COLUMN		2		26		88		24		140		TOTAL			
TOTAL		1.4		18.6		62.9		17.1		100.0					

RAW CHI SQUARE = 13.98156 WITH 6 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0298

CRAMER'S V = 0.22346

CONTINGENCY COEFFICIENT = 0.30133

LAMBDA (ASYMMETRIC) = 0.14286 WITH Q178 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.08527

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.05370 WITH Q178 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.05575

KENDALL'S TAU B = -0.21194. SIGNIFICANCE = 0.0029

GAMMA = -0.34665

SOMERS'S D (ASYMMETRIC) = -0.22925 WITH Q178 DEPENDENT.

SOMERS'S D (SYMMETRIC) = -0.21129

ETA = 0.27282 WITH Q178 DEPENDENT.

PEARSON'S R = -0.23097 SIGNIFICANCE = 0.0030

WITH Q154 DEPENDENT.

= 0.05797 WITH Q154

= -0.19594 WITH Q154

DEPENDENT.

DEPENDENT.

FILE LEE (CREATION DATE = 02-12-81)

***** C R O S S T A B U L A T I O N O F *****
 2179 SOURCE OF COMMISSION BY Q149 PROMOTION TO 0-7
 ***** PAGE 1

Q149

COUNT I		B		C		D		ROW	
ROW PCT IA									
COL PCT I									
TOT PCT I								TOTAL	
Q179		1	1	2	1	3	1	4	1
1		6	1	32	1	32	1	6	1
A		7.9	1	42.1	1	42.1	1	7.9	1
1		46.2	1	64.0	1	53.3	1	40.0	1
1		4.3	1	23.2	1	23.2	1	4.3	1
2		1	1	9	1	9	1	2	1
1		4.8	1	42.9	1	42.9	1	9.5	1
1		7.7	1	18.0	1	15.0	1	13.3	1
1		0.7	1	6.5	1	6.5	1	1.4	1
3		0	1	2	1	7	1	6	1
1		0.	1	13.3	1	46.7	1	40.0	1
1		0.	1	4.0	1	11.7	1	40.0	1
1		0.	1	1.4	1	5.1	1	4.3	1
4		6	1	7	1	12	1	1	1
1		23.1	1	26.9	1	46.2	1	3.8	1
1		46.2	1	14.0	1	20.0	1	6.7	1
1		4.3	1	5.1	1	8.7	1	0.7	1
COLUMN		13		50		60		15	
TOTAL		9.4		36.2		43.5		10.9	
									138
									100.0

RAW CHI SQUARE = 24.6595C WITH 7 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0034

CRAMER'S V = 0.24406

CONTINGENCY COEFFICIENT = 0.38936

LAMBDA (ASYMMETRIC) = 0. WITH Q179 DEPENDENT. = 0. WITH Q149 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.06515 WITH Q179 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.06452

KENDALL'S TAU B = 0.05150. SIGNIFICANCE = 0.2458

KENDALL'S TAU C = 40.40907. SIGNIFICANCE = 0.0000

GAMMA = 0.07838

SOMERS'S D (ASYMMETRIC) = 0.05020 WITH Q179 DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.05148

ETA = 0.19753 WITH Q179 DEPENDENT. = 0.32348 WITH Q149 DEPENDENT.

PEARSON'S R = 0.01528 SIGNIFICANCE = 0.4294

FILE LEE (CREATION DATE = 02-09-81)

 Q118 O-6 CAREER GOAL ***** C R O S S T A B U L A T I O N O F *****

 ***** BY Q164 CAREER INTENT *****
 ***** PAGE

Q164

COUNT		B		C		D		E		ROW
ROW PCT	IA	1.1	2.1	3.1	4.1	5.1	20			TOTAL
COL PCT	I	1.1	2.1	3.1	4.1	5.1	20			TOTAL
1.	I	0	0	10	7	3	14.5			
	I	0.	0.	50.0	35.0	15.0				
	I	0.	0.	13.9	35.0	33.3				
	I	0.	0.	7.2	5.1	2.2				
2.	I	0	2	22	11	4	39			
	I	0.	5.1	56.4	28.2	10.3	28.3			
	I	0.	7.4	30.6	55.0	44.4				
	I	0.	1.4	15.9	8.0	2.9				
3.	I	5	19	32	1	2	59			
	I	8.5	32.2	54.2	1.7	3.4	42.8			
	I	50.0	70.4	44.4	5.0	22.2				
	I	3.6	13.8	23.2	0.7	1.4				
4.	I	5	6	8	1	0	20			
	I	25.0	30.0	40.0	5.0	0.	14.5			
	I	50.0	22.2	11.1	5.0	0.				
	I	3.6	4.3	5.8	0.7	0.				
COLUMN		10	27	72	20	9	138			
TOTAL		7.2	19.6	52.2	14.5	6.5	100.0			

CHI SQUARE = 51.86806 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0000

CRAMER'S V = 0.35396

CONTINGENCY COEFFICIENT = 0.52267

LAMBDA (ASYMMETRIC) = 0.15190 WITH Q118 DEPENDENT, WITH Q164 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.08276

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.16994 WITH Q118 DEPENDENT. = 0.16649 WITH Q164

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.16819

KENDALL'S TAU B = -0.48405 SIGNIFICANCE = 0.0000

KENDALL'S TAU C = -0.43688 SIGNIFICANCE = 0.0000

GAMMA = -0.68783

SOMERS'S D (ASYMMETRIC) = -0.49721 WITH Q118 DEPENDENT. = -0.47123 WITH Q164 DEPENDENT.

SOMERS'S D (SYMMETRIC) = -0.48387

ETA = 0.54533 WITH Q118 DEPENDENT. = 0.54445 WITH Q164 DEPENDENT.

PEARSON'S R = -0.52407 SIGNIFICANCE = 0.0000

***** MAANDATORY RETIREMENT ***** CROSS TABULATION OF ***** CAREER INTENT *****
 Q120 ***** BY Q164 *****

Q164

COUNT		B		C		D		E		ROW TOTAL
ROW	PCT	IA								
COL	PCT									
TOT	PCT	1.1	2.1	3.1	4.1	5.1				
A	1.	3	3	3	0	0				
		33.3	33.3	33.3	0.	0.				
		27.3	11.1	4.1	0.	0.				
		2.1	2.1	2.1	0.	0.				
B	2.	6	16	17	4	0				
		14.0	37.2	39.5	9.3	0.				
		54.5	59.3	23.3	20.0	0.				
		4.3	11.4	12.1	2.9	0.				
C	3.	2	8	39	6	3				
		3.4	13.8	67.2	10.3	5.2				
		18.2	29.6	53.4	30.0	33.3				
		1.4	5.7	27.9	4.3	2.1				
D	4.	0	0	14	10	6				
		0.	0.	46.7	33.3	20.0				
		0.	0.	19.2	50.0	66.7				
		0.	0.	10.0	7.1	4.3				
COLUMN TOTAL		11	27	73	20	9				
TOTAL		7.9	19.3	52.1	14.3	6.4				

CHI SQUARE = 55.03020 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0000

CRAMER'S V = 0.36197

CONTINGENCY COEFFICIENT = 0.53119

LAMBDA (ASYMMETRIC) = 0.23171 WITH Q120 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.12752

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.16728 WITH Q120 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.16222

KENDALL'S TAU B = 0.48713 SIGNIFICANCE = 0.0000

KENDALL'S TAU C = 0.43646 SIGNIFICANCE = 0.0000

GAMMA = 0.68723

SOMERS'S D (ASYMMETRIC) = 0.49583 WITH Q120 DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.48706

ETA = 0.55148 WITH Q120 DEPENDENT.

PEARSON'S R = 0.54240 SIGNIFICANCE = 0.0000

WITH Q164 DEPENDENT.

= 0.15745 WITH Q164 DEPENDENT.

= 0.47859 WITH Q164 DEPENDENT.

DEPENDENT.

= 0.54645 WITH Q164

COUNT I									
Q164									
ROW	PCT	IA	B	C	D	E	ROW	TOTAL	
COL	PCT	I							
TOT	PCT	I	1.1	2.1	3.1	4.1	5.1		
1.	I	0	I	1	I	9	I	5	I
	I	0.	I	5.0	I	45.0	I	25.0	I
	I	0.	I	3.7	I	12.3	I	25.0	I
	I	0.	I	0.7	I	6.4	I	3.6	I
2.	I	1	I	6	I	23	I	8	I
	I	2.4	I	14.6	I	56.1	I	19.5	I
	I	9.1	I	22.2	I	31.5	I	40.0	I
	I	0.7	I	4.3	I	16.4	I	5.7	I
3.	I	5	I	19	I	37	I	6	I
	I	7.4	I	27.9	I	54.4	I	8.8	I
	I	45.5	I	70.4	I	50.7	I	30.0	I
	I	3.6	I	13.6	I	26.4	I	4.3	I
4.	I	5	I	1	I	4	I	1	I
	I	45.5	I	9.1	I	36.4	I	9.1	I
	I	45.5	I	3.7	I	5.5	I	5.0	I
	I	3.6	I	0.7	I	2.9	I	0.7	I
COLUMN	11	27	73	20	9	140			
TOTAL	7.9	19.3	52.1	14.3	6.4	100.0			

CHI SQUARE = 47.74387 WITH 12 DEGREES OF FREEDOM SIGNIFICANCE = 0.0000
 CRAMER'S V = 0.33716
 CONTINGENCY COEFFICIENT = 0.50428
 LAMBDA (ASYMMETRIC) = 0.08333 WITH Q141 DEPENDENT. = 0.01493 WITH Q164 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.05036
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.11243 WITH Q141 DEPENDENT.
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.10690
 KENDALL'S TAU B = -0.36992 SIGNIFICANCE = 0.0000
 KENDALL'S TAU C = -0.32354 SIGNIFICANCE = 0.0000
 GAMMA = -0.54541
 SOMERS'S D (ASYMMETRIC) = -0.36754 WITH Q141 DEPENDENT. = -0.37232 WITH Q164 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = -0.36992
 ETA = 0.45691 WITH Q141 DEPENDENT. = 0.44865 WITH Q164 DEPENDENT.
 PEARSON'S R = -0.44751 SIGNIFICANCE = 0.0000

Q172

COUNT		BY							ROW	
ROW PCT IA		COL PCT I							TOTAL	
TOT PCT I		TOT PCT I							TOTAL	
		1.1	2.1	3.1	4.1	5.1	6.1	7.1		
Q164	A	1.1	1.1	1.1	1.1	1.1	1.1	1.1	11	7.9
		9.1	9.1	9.1	9.1	9.1	9.1	9.1	45.5	16.7
		4.5	3.8	7.7	4.5	8.3	6.7	16.7	16.7	3.6
		0.7	0.7	0.7	0.7	0.7	0.7	0.7	3.6	3.6
		1.1	1.1	1.1	1.1	1.1	1.1	1.1	11	7.9
Q164	B	1.1	6.1	4.1	3.1	4.1	3.1	6.1	27	19.3
		3.7	22.2	14.8	11.1	14.8	11.1	22.2	19.3	19.3
		4.5	23.1	30.8	13.6	33.3	20.0	20.0	20.0	20.0
		0.7	4.3	2.9	2.1	2.9	2.1	4.3	4.3	4.3
		1.1	1.1	1.1	1.1	1.1	1.1	1.1	11	7.9
Q164	C	1.1	13.1	7.1	17.1	3.1	4.1	15.1	73	52.1
		19.2	17.8	9.6	23.3	4.1	5.5	20.5	52.1	52.1
		63.6	50.0	53.8	77.3	25.0	26.7	50.0	50.0	50.0
		10.0	9.3	5.0	12.1	2.1	2.9	10.7	10.7	10.7
		1.1	1.1	1.1	1.1	1.1	1.1	1.1	11	7.9
Q164	D	1.1	4.1	1.1	1.1	3.1	3.1	2.1	20	14.3
		30.0	20.0	5.0	5.0	15.0	15.0	10.0	14.3	14.3
		27.3	15.4	7.7	4.5	25.0	20.0	6.7	6.7	6.7
		4.3	2.9	0.7	0.7	2.1	2.1	1.4	1.4	1.4
		1.1	1.1	1.1	1.1	1.1	1.1	1.1	11	7.9
Q164	E	1.1	2.1	0.1	0.1	1.1	4.1	2.1	9	6.4
		0.1	22.2	0.1	0.1	11.1	44.4	22.2	6.4	6.4
		0.1	7.7	0.1	0.1	8.3	26.7	6.7	6.7	6.7
		0.1	1.4	0.1	0.1	0.7	2.9	1.4	1.4	1.4
		1.1	1.1	1.1	1.1	1.1	1.1	1.1	11	7.9
COLUMN TOTAL		22	26	13	22	12	15	30	140	100.0
TOTAL		15.7	18.6	9.3	15.7	8.6	10.7	21.4	100.0	100.0

CHI SQUARE = 36.50507 WITH 24 DEGREES OF FREEDOM SIGNIFICANCE = 0.0490

CRAMER'S V = 0.25532

CONTINGENCY COEFFICIENT = 0.45478

LAMBDA (ASYMMETRIC) = 0.01493 WITH Q164 DEPENDENT.

LAMBDA (SYMMETRIC) = 0.05085

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.10022 WITH Q164 DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.08197

KENDALL'S TAU B = -0.09398 SIGNIFICANCE = 0.0862

KENDALL'S TAU C = -0.08763 SIGNIFICANCE = 0.0862

GAMMA = -0.12416

SOMERS'S D (ASYMMETRIC) = -0.08318 WITH Q164 DEPENDENT.

U = 0.06934 WITH Q172

		Q141						
		COUNT	I	B	C	D	ROW TOTAL	
		ROW PCT	IA					
		COL PCT	I					
		TOT PCT	I	1.1	2.1	3.1	4.1	
Q120	A	1.	I	1	0	4	I	9
			I	11.1	I	44.4	I	6.4
			I	5.0	I	5.9	I	
			I	0.7	I	2.9	I	
B		2.	I	2	5	33	I	43
			I	4.7	I	76.7	I	30.7
			I	10.0	I	48.5	I	
			I	1.4	I	23.6	I	
C		3.	I	4	29	23	I	58
			I	6.9	I	39.7	I	41.4
			I	20.0	I	33.8	I	
			I	2.9	I	16.4	I	
D		4.	I	13	7	8	I	30
			I	43.3	I	26.7	I	21.4
			I	65.0	I	11.8	I	
			I	9.3	I	5.7	I	
COLUMN TOTAL		20	41	68	11	140		
		14.3	29.3	48.6	7.9	100.0		

CHI SQUARE = 66.70390 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0000
 CRAMER'S V = 0.39852
 CONTINGENCY COEFFICIENT = 0.56807
 LAMBDA (ASYMMETRIC) = 0.25610 WITH Q120 DEPENDENT. = 0.15278 WITH Q141 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.20779
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.16320 WITH Q120 DEPENDENT. = 0.16951 WITH Q141
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.16630
 KENDALL'S TAU B = -0.41601 SIGNIFICANCE = 0.0000
 KENDALL'S TAU C = -0.37034 SIGNIFICANCE = 0.0000
 GAMMA = -0.57816
 SOMERS'S D (ASYMMETRIC) = -0.42618 WITH Q120 DEPENDENT. = -0.40609 WITH Q141 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = -0.41589
 ETA = 0.44977 WITH Q120 DEPENDENT. = 0.44762 WITH Q141 DEPENDENT.
 PEASON'S R = -0.44708 SIGNIFICANCE = 0.0000

		Q165				ROW TOTAL
		1.1	2.1	3.1	4.1	
COUNT	IA					
ROW PCT	IA					
COL PCT	IA					
TOT PCT	IA					
1.	1	0	0	12	1	13
A	5.4	0.	0.	92.3	7.7	9.4
		0.	0.	18.5	5.3	
		0.	0.	8.7	0.7	
2.	1	0	11	33	6	50
B		0.	22.0	66.0	12.0	36.2
		0.	20.8	50.8	31.6	
		0.	8.0	23.9	4.3	
3.	1	0	29	19	12	60
C		0.	48.3	31.7	20.0	43.5
		0.	54.7	29.2	63.2	
		0.	21.0	13.8	8.7	
4.	1	1	13	1	0	15
D		6.7	86.7	6.7	0.	10.9
		100.0	24.5	1.5	0.	
		0.7	9.4	0.7	0.	
COLUMN		1	53	65	19	138
TOTAL		0.7	38.4	47.1	13.8	100.0

CHI SQUARE = 49.22612 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0000
 CRAMER'S V = 0.34482
 CONTINGENCY COEFFICIENT = 0.51276
 LAMBDA (ASYMMETRIC) = 0.19231 WITH Q149 DEPENDENT. = 0.30137 WITH Q165 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.24503
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.15855 WITH Q149 DEPENDENT. = 0.18361 WITH Q165
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.17016
 KENDALL'S TAU B = -0.33828 SIGNIFICANCE = 0.0000
 KENDALL'S TAU C = -0.28635 SIGNIFICANCE = 0.0000
 GAMMA = -0.50732
 SOMERS'S D (ASYMMETRIC) = -0.35113 WITH Q149 DEPENDENT. = -0.32590 WITH Q165 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = -0.33804
 ETA = 0.53454 WITH Q149 DEPENDENT. = 0.40642 WITH Q165 DEPENDENT.
 PEARSON'S R = 0.36044 SIGNIFICANCE = 0.0000

NUMBER OF MISSING OBSERVATIONS = 2

		Q165					
COUNT		I				ROW	
ROW PCT		B				TOTAL	
COL PCT		C					
TOT PCT		D					
		1.1	2.1	3.1	4.1		
Q118		-----				-----	
A	1.	0	20	0	0	20	
	I	0.	100.0	0.	0.	14.5	
	I	0.	37.0	0.	0.		
	I	0.	14.5	0.	0.		
B	2.	0	21	11	7	39	
	I	0.	53.8	28.2	17.9	28.3	
	I	0.	38.9	17.2	36.8		
	I	0.	15.2	8.0	5.1		
C	3.	1	11	37	10	59	
	I	1.7	18.6	62.7	16.9	42.8	
	I	100.0	20.4	57.8	52.6		
	I	0.7	8.0	26.8	7.2		
D	4.	0	2	16	2	20	
	I	0.	10.0	80.0	10.0	14.5	
	I	0.	3.7	25.0	10.5		
	I	0.	1.4	11.6	1.4		
COLUMN		1	54	64	19	138	
TOTAL		0.7	39.1	46.4	13.8	100.0	

CHI SQUARE = 57.31048 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.0000
 CRAMER'S V = 0.37206
 CONTINGENCY COEFFICIENT = 0.54169
 LAMEDA (ASYMMETRIC) = 0.12658 WITH Q118 DEPENDENT. = 0.40541 WITH Q165 DEPENDENT.
 LAMBDA (SYMMETRIC) = 0.26144
 UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.18762 WITH Q118 DEPENDENT. = 0.23271 WITH Q165
 UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.20775
 KENDALL'S TAU B = 0.40720 SIGNIFICANCE = 0.0000
 KENDALL'S TAU C = 0.35441 SIGNIFICANCE = 0.0000
 GAMMA = 0.57957
 SOMERS'S D (ASYMMETRIC) = 0.43376 WITH Q118 DEPENDENT. = 0.38227 WITH Q165 DEPENDENT.
 SOMERS'S D (SYMMETRIC) = 0.40639
 ETA = 0.59989 WITH Q118 DEPENDENT. = 0.47693 WITH Q165 DEPENDENT.
 PEAKSON'S R = 0.43705 SIGNIFICANCE = 0.0000

 Q176 YEARS TO RETIREMENT

 Q165

 C R U S S T A B U L A T I O N O F
 BY Q165

 C A R E E R G O A L

 P A G E

Q165

COUNT		Q176		Q165		TOTAL	
ROW	PCT	IA	B	C	D	ROW	TOTAL
COL	PCT	IA	B	C	D		
TOT	PCT	IA	B	C	D		

1.	1.	0	1	7	15	28	
		0.	1	25.0	53.6	20.0	
		0.	1	13.0	22.7		
		0.	1	5.0	10.7		

2.	1.	0	1	10	22	36	
		0.	1	27.8	61.1	25.7	
		0.	1	18.5	33.3		
		0.	1	7.1	15.7		

3.	1.	1	1	31	26	67	
		1.5	1	46.3	38.8	47.9	
		100.0	1	57.4	39.4		
		0.7	1	22.1	18.6		

4.	1.	0	1	6	3	9	
		0.	1	66.7	33.3	6.4	
		0.	1	11.1	4.5		
		0.	1	4.3	2.1		

COLUMN	1	54	66	19		140	
TOTAL	0.7	38.6	47.1	13.6		100.0	

CHI SQUARE = 12.12879 WITH 9 DEGREES OF FREEDOM SIGNIFICANCE = 0.2061

CRAMER'S V = 0.16994

CONTINGENCY COEFFICIENT = 0.28236

LAMBDA (ASYMMETRIC) = 0.05442

LAMBDA (SYMMETRIC) = 0.05442

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.03998 WITH Q176

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.04306

KENDALL'S TAU B = -0.21674 SIGNIFICANCE = 0.0021

KENDALL'S TAU C = -0.18354 SIGNIFICANCE = 0.0021

GAMMA = -0.33767

SOMERS'S D (ASYMMETRIC) = -0.22547 WITH Q176

SOMERS'S D (SYMMETRIC) = -0.21657

ETA = 0.24829 WITH Q176

PEARSON'S R = -0.23420 SIGNIFICANCE = 0.0027

= 0.10811 WITH Q165

DEPENDENT.

= 0.04600 WITH Q165

= -0.20834 WITH Q165

DEPENDENT.

DEPENDENT.

APPENDIX I

POSITIVE FACTORS

WRITTEN RESPONSES TO QUESTION 190--THREE MOST POSITIVE
FACTORS IN AN AIR FORCE CAREER

NUMBER 1 FACTOR

1A. Job Satisfaction

Job satisfaction. (18)*
Sense of accomplishment. (2)
Knowing I am doing something important and worthwhile.
Opportunity for job satisfaction.
Meaningful work.
Job enrichment.
Personal/professional job enrichment.
Job fulfillment.
Sense of mission/contribution.
Contributor to elite group/mission.

1B. Flying

Flying. (5)
Operational flying.
Flying duty.
Chance to fly.
Enjoy flying airplanes.
Flying fighters.
Flying Airplanes.
Opportunity to fly fighters.

1C. Challenge (of the job)

Challenge. (3)
Challenging, rewarding jobs. (2)
Professional challenge.
The challenge--playing a significant part in the leadership/
management of a key part of the USAF mission.
Continuing challenge; flying, leadership opportunities, differ-
ent assignments.
Challenging assignments.
Challenge and responsibility.
Opportunity for challenging jobs.
Varied and challenging jobs.
Challenging mission.

*Parenthetical numbers indicate the number of times a particular response appeared; e.g., Job satisfaction was listed as the number one factor 18 times.

1D. Responsibility (of the job)

Responsibility. (4)
Job responsibility. (5)
Responsibility of the job. (2)
Responsibility level.
Responsibility for important activities.
Job responsibility commensurate with skill level.

1E. Job Opportunities

Job opportunities. (2)
Job opportunities and locations.
Rewarding job opportunities.
Job opportunities to include variety and movement.
Opportunity (type of job)
Responsible job opportunities.

1F. The Job Itself

The job.
Job and working environment.
Good jobs.
Mission.

2. People

People. (2)
The people I associate with. (2)
Your peers (the people you work with).
Caliber of people.
Camaraderie
The people you meet and the friends you keep--the closeness
of military life.
The people you work with.
The people/camaraderie.
Quality of people you work/live around.
Association with dedicated folk.
Generally, the dedication of fellow AF members.

3. Service to Nation

Duty to country. (2)
Opportunity to serve my country. (2)
Service to country. (2)
Service to nation.
Sense of duty.
A sense of service.
Feeling of self worth; providing a needed service to country.
Patriotism

Sense of service to country.
Support of a common objective (defense of country).
Respect, esteem of country.
Sense of serving a worthy cause.
Opportunity for an exciting and meaningful job--service to country.

4. Retirement System

Retirement.
Retirement system.
Retirement benefits.
Retirement pay and benefits.
Pension.
Retirement program.
Retirement income.
Retirement benefits/active duty benefits.
20 year retirement.
Retirement system allowing second career.

5. Travel

Travel. (7)

6. Pay/Benefits

No responses as a number one factor.

7. Advancement/Promotion

Promotion in rank and responsibility.
Opportunity to advance in rank and responsibility.
Promotion.

8. Leadership Opportunities

Chance for leadership.
Opportunity for leadership and command.
Leadership opportunities.

9. Security

Security. (2)
Job security.

10. Professionalism

Professionalism.
Professional pride.

11. Way of Life

The way of life.

12. Educational Opportunities

Continuing educational opportunities.

13. Impact on Family

No responses as a number one factor.

14. No Positive Factors

Does not have any strong, positive factors.

15. Status/Pride

No responses as a number one factor.

16. Stability

No responses as a number one factor.

17. No Number 3

No responses as a number one factor (obviously).

18. Leave

No responses as a number one factor.

WRITTEN RESPONSES TO QUESTION 190--THREE MOST POSITIVE
FACTORS IN AN AIR FORCE CAREER

NUMBER 2 FACTOR

1A. Job Satisfaction

Job satisfaction. (10)
A sense of fulfillment.
Ability to achieve results; influence decisions.
Feeling of doing a worthwhile job.
Job satisfaction--sometimes depends on your boss.
Some jobs are really worth doing.
Rewarding experiences.
Utilization of talents.

1B. Flying

Flying. (10)
Opportunity to fly.

1C. Challenge (of the job)

Challenging assignments.
Active competitive and changing environment.
Challenging opportunities.
Challenging work environment.

1D. Responsibility (of the job)

Responsibility.
Ability to assume responsibility and initiative.
Job responsibility.
Responsibility and attendant authority.

1E. Job Opportunities

No responses as a number two factor.

1F. The Job Itself

Interesting work.
Interesting job.
Jobs held.

1G. Job Diversity

Variety--types of jobs and locations
Job diversity. (2)
Diversity
Broad variety of increasingly challenging assignments.
Challenging variety vs civilian ruts.
Variety of jobs.

1 H. Job Technology

Involvement with state of the art technology.

2. The People

Interpersonal relationships.

Friendships developed.

Quality of career personnel to work with.

Working with the finest people in the U.S.

Friends around the world.

Social life.

People I work with.

Super associations--professional and personal.

Making many good friends.

Camaraderie of fighter pilot fraternity.

Working relationships.

People. (2)

Camaraderie.

Quality of people.

Unit identification and sense of belonging.

Meeting and working with good but different people.

Work with bright, well-informed people.

3. Service to Nation

Service to nation.

Service to country. (2)

Satisfaction from serving country--making a contribution

Patriotism.

Sense of purpose.

Important job--patriotism, etc..

Sense of serving my country.

The mission and contribution to our society.

Opportunity to serve country.

4. Retirement System

Retirement. (3)

Retirement program. (2)

Early (20 yr.) retirement.

Opportunity for early retirement.

Early retirement.

Retirement system.

Military retirement.

Retirement system (20-30 yr. options).

5. Travel

Travel. (4)

Travel opportunities. (2)

6. Pay/Benefits

Pay and allowances. (2)

Money

Pay.(5)

Allowances.

Fringe benefits including recreational opportunities

Family medical care.

Medical Benefits.

7. Advancement/Promotion

Opportunity to progress thru hard work and study.

Reasonably rapid promotions.

Opportunities for advancement.

Advancement.

Equal opportunity.

Early promotion.

Promotion opportunities.

8. Leadership Opportunities

The authority vested in positions of increasing responsibility.

Leadership opportunities. (4)

Leadership responsibilities.

Opportunity to lead early in career.

Being able to be a leader.

9. Security

Job security. (3)

Career Stability.

Security for family--present and future

Security.

10. Professionalism

The relationship to other professionals.

Working with other professionals.

Belonging to a highly professional organization.

Working with professional peers.

Membership in a profession.

Pride in being a professional.(2)

11. Way of Life

Way of life.

Military.

Family reasonably happy with military life/lifestyle.

(cosmopolitan with sense of community.)

12. Education Opportunities

Education Opportunities.

13. Impact on Family

No responses as a number 2 factor.

14. No Positive Factors

Does not have any strong, positive factors.

15. Status/Pride

No responses as a number 2 factor.

16. Stability

Stability

17. No Number 3

Obviously, no responses as a number 2 factor.

18. Leave

No responses as a number 2 factor.

WRITTEN RESPONSES TO QUESTION 190--THREE MOST POSITIVE
FACTORS IN AN AIR FORCE CAREER

NUMBER 3 FACTOR

1A. Job Satisfaction

Job satisfaction. (6)
Influence of policy.
Psychic reward.
Enjoyment.
Excitement of an AF career--never a dull moment

1B. Flying

Flying. (2)
Enjoyed flying

1C. Challenge (of the job)

Challenge. (4)
Challenging jobs. (4)
Challenge of the job assigned.
A career that stimulates and challenges on individual.

1D. Responsibility (of the job)

High degree of responsibility in my job.

1E. Job Opportunities

Challenging job opportunities.

1F. The Job Itself

Good type of job.
Interesting work.
Exciting, interesting job.
When you are lucky, a good job.

1G. Job Diversity

Opportunity to do a variety of jobs.
Opportunity to have a broad career with many different jobs
in different locations.
Different job experiences.
Varied assignments.

1H. Job Technology

No responses as a number 3 factor.

2. The People

Great people.
Social relationships.
People. (5)
Working with good people.
Corporate esprit de corps.
Camaraderie. (3)
People you work with. (2)
Dedication of career personnel.
Comradeship.
People to people relationships.
Working with a great group of people.
AF way of life (camaraderie and esprit)
Quality of people I work with.

3. Service to Nation

Serve my country. (2)
Patriotism.
Service to country. (4)
Patriotism fulfillment. (2)
Sense of contributing to the country. (2)
Respect of public.
Psychic rewards of service.
Contribution to nation.
Opportunity to serve a great cause--my country.
Sense of duty.
Satisfaction thru service to country.

4. Retirement System

Retirement at early age. (2)
Early retirement and a financial base for a future career.
Retirement program. (3)
Retirement benefits. (3)
Retirement. (2)
Long term security aspects of the military retirement system.
Retirement options.
Decent retirement plan.

5. Travel

Travel. (9)
Travel opportunities.
Opportunity to travel.
Changing jobs/locations.
Location.
Travel within reason.
Travel earlier in career.

6. Pay/Benefits

Pay. (2)
Pay and Benefits.
Increased priviledges and benefits.
Benefits.
Medical benefits. (3)

7. Advancement/Promotion

Promotion.
Advancement opportunities. (2)
Career progression.
Opportunity to advance based on individual performance.

8. Leadership Opportunities

Command opportunity.
Opportunity to command a flying organization.

9. Security

Job Security. (2)
Security. (3)

10. Professionalism

No responses as a number 3 factor.

11. Way of Life

No responses as a number 3 factor.

12. Education Opportunities

Education. (5)

13. Impact on Family

Ability to provide my family a secure future.
In many ways it is good for my family.
Education for children, i.e., new places, new friends.
Family support, growth.
The manner in which senior leadership shows concern for family
related issues.
Time to spend with my family.

14. No ppsitive Factors

Does not have any strong positive factors.

15. Status/Pride

Belonging to an organization with the great history of
the Air Force (pride).

Status.

Prestige.

Recognition.

16. Stability

Stability.

17. No Number 3

No number 3. (2)

18. Leave

Initially, the 30-days' leave (some industries provide their
upper executives 5-6 weeks leave today).

APPENDIX J

NEGATIVE FACTORS

WRITTEN RESPONSES TO QUESTION 191--THREE MOST NEGATIVE
FACTORS IN AN AIR FORCE CAREER

NUMBER 1 FACTOR

1A. Inadequate Pay and Allowances

Pay, allowances--compensation in general, compared to what
I've seen in civilian sector.
Pay.(8)
Low pay. (3)
Compensation. (2)
Pay and allowances. (5)
Pay, to include relocation allowances.
Insufficient pay and benefits compared to my contemporaries
in civilian industry.
Uncertainty of adequate pay. Many equate the military to
ministers. They expect us to live on patriotism, the
flag and mom's apple pie.
Inadequate pay and allowances for services provided.
Arbitrary compensation/benefit adjustments.
Inadequate compensation.
The lack of significant pay and benefits which reflects a
continuing lack of respect by the country/government
for the military role in a viable national security posture.
Archaic compensation and benefits package.
Pay disparity.
Relative deterioration of pay and benefits.
Compensation not responsive to inflation.
Pay caps during inflation.
Inadequate compensation to offset inflation.
Proper compensation.
Pay vs cost of living.
Inability to keep income in pace with economy.
Compensation below inflation rate.
Pay inadequate.

1B. Eroding Benefits

Poor medical service and no dental care for dependents.
Erosion of benefits. (2)
Decrease and loss of benefits and privileges.
Lack of dental care for dependents.

1C. Moving Costs

High cost of PCS moves.
Frequent moves and cost.
Moving costs.
Moving and receiving major damage with very little compensation.
The "I don't care" attitude of moving companies plus
cost of moving--DLA=1 month's quarters--just don't hack it.

2A. Management Related

Centralized control and management.
Unrealistic controls through micromanagement.
Management. (2)
Micromanagement. (3)
Poor senior management (at least in my career field).
Lack of participative management
Still too centralized at wing level.
Over-management--too much cover your _____.

2B. Leadership Related

Indifferent or negative attitude of civilian leadership.
Lack of military leaders' willingness to stand up to
political leaders.
Weak leadership.
SAC leadership (too old-fashioned).
Lack of senior leadership (more leaders, fewer managers).
Make-work leadership philosophy.

2C. Policy Related

Personnel policies.
Stupid management tools--such as 1-2-3 OER.
Uncertainty; rules keep changing.
Short term management (1-2-3 OER to kill inflation).

3A. Instability

Frequent TDY and separation.
Family separation (6).
Job caused family separation.
Family disruption.
Period of maximum moving is at worst possible time for
family (teenaged children).
Disruption to family.
Disruption of family life/schooling/separations.
Instability. (2)
Lack of tour stability.
Family separation (moving).
Disruption of family (moves/separations).
School age kids and changing school.
Lack of assignment stability.
PCS moves/ family stability.

3B. Moving

Moving.
Constant moving.
Frequent moves.
Constant jobs, location change.

4. No Control Over Assignments

Staff assignment.
Remote assignments. (3)
No control of assignments.
Lack of say in assignment location.
The "political" nature of O6 and general-officer assignments and promotions.
Unaccompanied tours in peacetime.
No control over future. (2)
Inability to determine career.
Lack of control over assignments that can be achieved within normal assignment practices (without asking general officer for help).
Lack of control over assignments.
Lack of control over where I want to go and how often.
Assignment control.

5. Promotion/Advancement

Promotion uncertainty.
Lack of adequate promotion opportunity to O-7.
Opportunity for progression.
Lack of adequate promotion opportunity to general officer for nonrated
Promotion system.
Complete disregard for potential vs politics.
Leaders too promotion oriented vs USAF oriented.
Do-gooders and fair-haired boys trying to lie, cheat, and steal to get ahead of their peers.
Overemphasis on careerism by too many officers.

6. Lack of Prestige/Appreciation

Lack of appreciation by public and Congress.
Barrier between military and civilian economy.
Lack of recognition and prestige by civilian sector.
Public indifference toward career military personnel.
American public's low opinion of value of military career.
Lack of civilian respect for military.

7. Resource Deficiencies

Lack of parts and supplies.

8. The Job

Boring job.
Lack of job commensurate with ability.
Non-use of training/talents.

9. Navigator Discrimination

Limited by AERO rating (NAV) for advanced rank and jobs.
Lack of equal opportunity for NAVS to achieve command of operation flying units.

Job discrimination because of being a navigator.
Being a navigator in a "pilots'" Air Force
Status of navigators when competing for promotions, jobs,
assignments, etc.

10. Incompetent People

Incompetence in visible positions; i.e., CBPO, MAC terminals,
SP, etc. due to poor leadership.
Promotion of mediocrity with inflated ratings.

11. PME

Requirement to attend Mickey Mouse PME courses; i.e., AWC.
Give me an opportunity to solve major AF problems
at PME and not study ancient history.
The grading system at AWC.

12. Long Hours

No responses as a number 1 factor.

13. No Number 3.

Obviously, no response as a number 1 factor.

14. Too Early Retirement

Having to look for 2nd career at advanced age.

15. Non-professionalism

Lack of professionalism.
Non-professionalism.

16. No Number 2

Obviously, no response as a number 2 factor.

17. Civilian Leadership

No responses as a number 1 factor.

18. Non-monetary Compensation

Compensation, over and above money, does not increase
commensurate with rank and responsibility; i.e., some
officers don't go to head of the line like they did
in the "brown-shoe" days. Bust your tail 10 hours a
day as an L/C so you can work 12-14 hours as a colonel.

20. No Number 1

No number 1 response.

21. Spouse Requirements

No responses as a number 1 factor.

WRITTEN RESPONSES TO QUESTION 191--THREE MOST NEGATIVE
FACTORS IN AN AIR FORCE CAREER

NUMBER 2 FACTOR

1A. Inadequate Pay and Allowances

Pay. (8)

Lack of adequate pay and allowances.

Erosion of pay and benefits--including encroachment of
commissary and BX prices by private sector.

Low pay. (3)

Inadequate compensation (TDY pay, rent-a-car use, office
space and furnishings, basic pay and allowances,
moving compensation, compensation for 50, 60, 70
hour weeks).

Low pay compared to same skill in civilian community and
excessive family separation.

Inadequate compensation vis-a-vis civilians.

Inequitable workloads and hours for which compensatory
benefits are not received.

Pay and allowances along with eroded benefits.

Low pay especially for enlisted force.

Inadequate pay and privileges for senior officers and senior
enlisted.

Inadequate pay and benefits.

Lack of adequate compensation.

Inadequate pay.

Compensation is not adequate for demands and responsibility.

Fulfilling family financial obligations.

1B. Eroding Benefits

Erosion of benefits (medical, rank privileges, BX, commissary
benefits are marginal).

Uncertainty of retirement benefits.

Benefits.

Inadequate family medical attention.

Medical and dental for dependents.

Poor medical service.

Deterioration of real benefits--medical benefits, commissary, etc.

Poor medical care.

Space available only medical/dental care for retirees.

Erosion of benefits.

1C. Moving Costs

Cost of overseas move (loss of equity in a house, etc.)

Disadvantages faced in local markets (housing, etc.) due
to constant movement.

2A. Management Related

Guidance from senior officers to their Hq. staffs, in many instances, needs to be better defined. There are not enough people to work the wrong problem.
Lack of integrity.
Some areas of Air Force management.
Over-politicization.
Too much time devoted to crisis management and not enough planning for the future.
An absence of foresight and disregard for innovative thinking.
Micro-management from the macro-level--hire me, train me, select me for a key job and turn me loose. Trust me!
Having to work for and with marginally competent senior officers who are either cheap bastards, lacking in professional integrity or are promoted to O-6 despite their total lack of attention to detail and preparation.
Too many layers of bureaucracy (NAF, etc.)
Centralized management.
Micro-management.
Management mindset vice leadership.
Lack of flexibility on the part of leaders and management to reward and promote truly outstanding performers and place them in responsible positions.
Over centralization of management.
Reluctance of leadership to delegate authority.
High levels of responsibility without commensurate authority.
Frustrations of dealing with system/bureaucracy.
"Make work" to answer "what ifs."

2B. Leadership Related

Aggrandized leadership.
Leadership.
Quality of leadership--excessive self-centeredness.
Leadership by default (oldest).

2C. Policy Related

Performance rating system.
Up-or-out.
Do more with less as manning goes down and job stays constant or expands.
Lack of a comprehensive, organized and responsive Air Force personnel program.

3A. Instability

Uprooting the family so often.
Family separation.(4)
Instability of family life.
Family hardships (PCS's, separations, schools).
Family disruptions.
Family inconvenience.
Moving family with children in later high school years.
Heavy personal requirements.
Lack of family stability roots.

3B. Moving

Numerous PCS. (2)
Frequent moves.
Moving.
Strain on family during moves.
Stability of assignments.
Too frequent moves.
Moving too much.
Frequent PCS moves.

4. No Control Over Assignments

Lack of real control over assignments.
Uncertainty in assignments.
Frequent impossibility of matching personal desires with
AF needs.
Lack of control over destiny--assignments, where you live,
promotions.
Little career control.
Assignment limitations (as career progresses).
Concern for personnel desires.
Inadequate consideration of my personal/family concerns in
the assignment process.
Too much staff duty.
Fragmented career management philosophy.
Future uncertainty.
Lack of influence over assignments.
Insensitivity to family with assignments.
Remote tours.
Assignment instability.
Ability to influence future assignments.

5. Promotion/Advancement

Lack of opportunities rated-vs-non-rated.
To be promoted it requires a turbulent PCS environment.
Promotion system. (2)
OER/promotion concerns.
People who try to do everything except what Uncle Sam pays
them to do to get promoted--education, PME, boot licker,
etc..
Promotion prejudice.
Lack of promotion opportunity beyond O-6 for non-rated officers.

6. Lack of Prestige/Appreciation

Prestige.
Treatment.
Low prestige.
Lack of public esteem for military. (2)
Lack of public support.
Inadequate recognition/respect for military professionals by
society.
Societal View.

7. Resource Deficiencies

Poorly equipped and maintained: equipment and facilities
Lack of resources to complete mission (people, flying,
time, etc.).
Not enough flying time for our jocks to have the proficiency
they want to have.
Inability to complete/accomplish needed improvements.
Poor working conditions.
Lack of adequate funding to accomplish mission properly.
Lack of adequate resources for proper training.
Lack of resources to do the job.

8. The Job

Large number of meaningless jobs.
Stagnation.

9. Navigator Discrimination

No response as a number 2 factor.

10. Incompetent People

A weak, ineffective boss.

11. PME

No response as a number 2 factor.

12. Long Hours

Hours.
Unreasonable work demands.
Long hours.
Work schedules.

13. No Number 3

Obviously, no response as a number 2 factor.

14. Too Early Retirement

Starting second career.
Necessity of starting second career at middle age.

15. Non-professionalism

No response as a number 2 factor.

16. No Number 2

No number 2 negative factor. (3)

17. Civilian Leadership

Civilian employees throughout DOD.
Lack of Presidential support.

18. Non-monetary compensation

No response as a number 2 factor.

19. Inequality in the Workforce

Ne response as a number 2 factor.

20. No Number 1

Obviously, no response as a number 2 factor.

21. Spouse Requirements

No response as a number 2 factor.

WRITTEN RESPONSES TO QUESTION 191--THREE MOST NEGATIVE
FACTORS IN AN AIR FORCE CAREER

NUMBER 3 FACTOR

1A. Inadequate Pay and Allowances

Unequal work for equal pay.
Always feeling overworked and underpaid.
Pay, benefits.
Money.
Compensation.
Loss of purchasing power due to inflation.
Monetary compensation.
Low Pay. (2)
Salary plus eroding of benefits.
Compensation well below civilian for education and experience.
Pay and benefits. (2)
Poor pay for responsibility.
Pay. (5)
Compensation in certain skills compared to those in civilian
community.
Pay insufficient for the dedication and hard work required
to do the job right-the first time.
Inadequate financial rewards.
Inadequate pay, benefits and courtesies for senior officers.
Compensation relative to civilian sector equivalents.
Lack of commensurate pay (for work/responsibility).

1B. Eroding Benefits

Increasing difficulty in providing for retirement home.
Declining quality of medical and dental benefits and services.
Dwindling benefits.
Erosion of prestige and benefits.
Instability of military perks over a period of time to fiscal
scrutiny by civilian sector.
Consistant erosion of benefits.
Up until the last year or two the constant press by OMB,
GAO, Congress and some in the DOD to eliminate BXs,
commissaries and the poor press based on little evidence
of any impropriety.
Loss of benefits.
Lack of dental benefits and GI Bill.
Housing
Insidious erosion of benefits.
Benefits touted but not available; i.e., medicare for
dependents, etc..
Erosion of benefits.

1C. Moving Costs

PCS moves (in today's economy, selling house, etc.).
Moving expenses.
Cost of housing market--moves.
Expenses for PCS moves (financial disaster)(move, housing, rentals, etc.)
Inadequate travel allowance.
I hate to move, not the change of location but the hassle and cost of going from A to B. We can make that easier--pay what it costs; i.e., house hunting trips, etc..

2A. Management Related

Centralization
Managerial distrust of people.
Need much more buck stop--lower the responsibility.
Careerism.
Terrible senior management.
Micromanagement by HHQ.
Fuzzy management practices.
Incompetent senior leadership.
Senior management.
Managers and supervisors with their heads in the sand about the mission of the Air Force to Fly and Fight. Only want to do what's good for them.
Micromanagement.
Perception of higher management that more hours on the job equates to a significantly higher degree of accomplishment.
Leaders who won't tell superiors no; i.e., can do without.
The perception that senior officers do not have the authority to make necessary changes in force structure and management.

2B. Leadership Related

Confused leadership.
Square-filler commanders with no concern for mission or people.
Poor leadership.

2C. Policy Related

Contending with illogical programs; e.g., affirmative action.
An impersonal personnel system.
Poor, inconsistent policies.
Having to keep doing more with less.
Elimination of "soldiering" from the Air Force.
Congressional juggling of retirement and pay scales.
Inflated rating system.
Up or out system.
Insecurity resulting from "up or out" system.
Changes in the rules; i.e., retirement, etc..
Rating system.

3A. Family Disruption/Separation

Family Separation. (4)

Great deal of family sacrifice.

Family hardships from PCS/TDY.

Family separation of PCS moves.

Time away from family.

Family stress.

Inability to take root and settle down before retirement

Incompatibilities between AF career and family stability needs

--especially for career working spouses and children
with special education needs or desires.

Family considerations.

3B. Moving

Moving

Frequent PCSs

Lack of roots to community

Continual moving.

Frequency of moves.

4. No Control Over Assignments

Assignment policies.

Assignments.

Assignment policies not flexible enough to accomodate the
family members and their desires.

Aircraft assignment policies.

Control over assignment opportunities.

Knowing that I'm headed for Washington D.C..

The requirement for overseas duty.

Lack of control over future.

Lack of control over assignments.

Assignment planning/family separation.

5. Promotion/Advancement

Limited opportunity for promotion that is commensurate
with ability.

Failure to truly recognize outstanding dedication and work.

Increasing politicization of promotion process at higher
grade levels.

People gaming system to get ahead.

Too many squares to fill--PME, education.

6. Lack of Prestige/Appreciation

Lack of public support for military. (2)

Lack of respect by civilians.

Public attitude.

Being used by political civilian opportunists as a scapegoat
in attempts to influence policy or create social change.

Public concept of military career.

Lack of civilian appreciation.
Lack of appreciation from society.
Lack of public respect and appreciation.
Lack of Congress support.
Lack of adequate status symbols (externals).

7. Resource Deficiencies

Inadequate resources to do the job.

8. The Job

Job satisfaction.
Match responsibility and capability.
Meaningful employment.

9. Navigator Discrimination

No response as a number 3 factor.

10. Incompetent People

The difficulty of getting rid of people who can't or won't perform.
Promulgation of mediocrity.
Lack of commitment to mission.

11. PME

PME.
AWC (Evaluation system in particular.).
PME that continues to treat adults as children!
Being treated the way I was as a Lt or Capt, especially in Air Force schools.

12. Long Hours

No response as a number 3 factor.

13. No Number 3

No Number 3 as a negative factor. (8)

14. Too Early Retirement

No response as a number 3 factor.

15. Non-professionalism

No response as a number 3 factor.

16. No Number 2

Obviously, no response as a number 3 factor.

17. Civilian Leadership

No response as a number 3 factor.

18. Non-monetary compensation

No response as a number 3 factor.

19. Inequality in the Workforce

Inadequate recognition for support personnel.
Disparity in image of rated-vs-non rated officers.
Failure to improve the quality of life for enlisted troops.

20. No Number 1

Obviously, response as a number 3 factor.

21. Spouse Requirements

Some situational ethics; i.e., Navs can be Sq/CC, yet that's
not really true; most Sq and Wg/CCs must be married;
more emphasis put on wives being involved in social
functions and not recognizing the ongoing social
revolution.
OWC, and the politics required to promote husband.

APPENDIX K

MOST IMPORTANT ISSUE

WRITTEN RESPONSES TO QUESTION 192--THE SINGLE MOST
IMPORTANT ISSUE FACING THE AIR FORCE TODAY

1. Retention

Making sure we have quality people.
Recruitment and retention of high quality people (6).
Retention - particularly second term enlisted people.
Retention (23).
Retention of engineers.
Retention of best people (6).
Retention of career airmen to adequately support existing
weapons systems.
How to attract and retain qualified people and use them
to their maximum effectiveness--women included
Retention of quality people with the recent experience to
fly and lead the troops.
Retention of skilled/experienced work force (5).
Retention of highly qualified officers and airmen (4).
Retention of NCOs and mid-grade (7-10 yr) officers (3).
Poor recruitment (we are not getting the good people) and
disastrous retention. Lets take a look at universal
service and a GI Bill.
Retention of decent personnel.
People.
Retention of mid-level NCOs (2).
Retention, recruitment and general quality of the force.
Maintaining a force of trained, qualified, motivated
personnel.
Retention of quality people especially young officers and
airmen (2).
Retention, Retention, Retention of good professional
military soldiers. Need a system that dumps the
"do-gooders;" i.e., PME bums and professional students
that won't work but think they are so highly qualified.
Retention of quality people in critical skills (engineering,
medical) .
Retention of the right quality people for the right reasons;
i.e., to serve AF not their personal advancement.
Retention of professional people.
Retention of the right people, both senior officers and senior
NCOs .
Recruiting, training, utilization and retention of quality
personnel.
Retention of experienced middle managers.
Retention--not just pilots (they are highly visible) but
qualified people across the board.

2. Readiness Deficiencies

Readiness (4).

Objectives and purposes.

Lack of readiness to fight which is the primary mission of the USAF.

Acquiring a combat capability that will contribute to our country reacquiring credibility as the leader of the free world.

That issue is identical to that faced by other military services--whether or not "defense" is worth the price the U.S. public must pay over the next two decades to buy "insurance" for U.S. lifestyle.

Lack of national purpose and commitment to support the military personnel and equipment necessary to meet the threat.

Unwillingness of the citizenry to adequately support the military with sufficient quality people and money posed against the high proportion of the budget that a good AF costs.

How to rebuild the nation's military strength.

Convincing the public and Congress to maintain an adequate defense.

Necessity of having a strong military.

Preparedness for war.

Inability to carry out the mission of national defense because of past political mistakes and the need to rebuild to meet the challenge.

Decreasing strength relative to USSR.

Being able to counter the known threat.

Continuing viability.

Combat readiness--i.e., the aggregate ability of all USAF resources (personnel, equipment, doctrine, etc) to meet and defeat the Soviet threat, when employed in concert with other U.S. and Allied forces.

Acquiring and maintaining an adequate AF for its mission.

Readiness/sustainability.

Insure we have the means of preserving the American society.

Building and maintaining a fighting force of sufficient size and quality.

Preparing for war against a stronger opponent.

3. Leadership/Management Deficiencies

Lack of quality leadership.

The proliferation of Hqs and Staffs. We have more pilots "managing" than we have pushing throttles by some margin. The younger pilots see little future for themselves except as "paper-pushers."

Lack of guts in senior leadership. Politics and desired personal achievement overshadow telling it like it is.

We don't have enough people in leadership positions--Sq/CC and above--who are willing to disregard the political nature of the system. Too many are concerned about their own personal goals and not the mission/people.

Leadership and management.
 Developing leaders, not micromanagers.
 Inability to manage with integrity; leadership too politically inclined.
 Bureacracy of leadership.
 How to do away with the vast number of strap hangers making life impossible for the few workers in the wings that make the AF go.
 Maintaining a sense of dedication, professionalism and urgency within the service in a time where this is not particularly in vogue within the country
 Loss of professional identity.
 Pampering to selfishness rather than appealing to patriotism.
 Rising expectations of people with the idea--what's in it for me.
 The need for a greater sense of duty and commitment in its people. The need for the AF to be considered more than just a job.
 Quality of personnel.
 Esprit de corps (2).
 Motivation
 We need to focus the attention of all our people on the mission of the Air Force, emphasizing each individual's part in that mission.
 Improving its image to Congress, the American people and itself to provide self-esteem necessary to maintain professionalism and retention in its personnel.

4. Resource Deficiencies

Lack of adequate \$ support from Congress.
 Dollar crunch.
 Provision for adequate resources (\$, systems, personnel).
 Money for equipment and people.
 How to buy quality people and equipment with limited budgets.
 Lack of resources to do job properly.
 How to optimize the use and expenditure of limited funds appropriated by Congress.
 Inability of aligning mission requirements with capability.
 Weapon acquisition.
 Making progress in people programs, compensation, hardware, facilities, forces under fiscal constraints.
 Materiel support of aircraft--(people and parts).
 Lack of sufficient resources to perform mission and maintain a quality force.
 Quality of life for its personnel--all money (O & M) goes to mission related items, not to improving our facilities, recreational activities, etc.
 Having enough money, materiel and manpower to do the job.
 Lack of adequate funding to accomplish mission properly.
 Doing more with less.
 Maintaining a quality force in the face of budgetary constraints.
 Lack of resources to adequately train and function under sustained combat.

5. Compensation

Compensation.

Pay (2).

Equal pay versus the civilian market

Inadequate pay.

6. Miscellaneous

Lack of concern for singles; i.e., quarters, job opportunities,
pay differences for marrieds.

LIST OF REFERENCES

1. Anderson, Lieutenant Colonel Kenneth A. "Air War College Class of 1980 Retention Survey." Air War College research study, Air University, Maxwell AFB, Alabama, 1980.
2. Brown, Lieutenant Colonel James W. USAFMPC/MPCAR, Randolph AFB, Texas. Interview, March 1981.
3. Ginovsky, John. "Why Air Force Pilots Resign: They Don't Fly Enough." Air Force Times, November 10, 1980, p. 1.
4. Herzberg, Frederick. "One More Time: How Do You Motivate Employees?" Harvard Business Review. January-February 1968, pp. 53-62.
5. McDonnell, James A., Jr. "The Bulletin Board." Air Force Magazine, February 1981, p. 108.
6. Myers, M. Scott. "Who Are Your Motivated Workers?" Harvard Business Review, January-February 1964, pp. 73-88.
7. Nie, Normal H., Hull, C. Hadlai, et al. Statistical Package for the Social Sciences. 2nd ed. New York: McGraw-Hill, 1975.
8. "Officer Loss Trends." Briefing prepared by USAFMPC/MPCYAA, Randolph AFB, Texas. 1980.
9. Supplement to the Air Force Policy Letter for Commanders AFSINC/IIA, Kelly AFB, Texas. February 1981, p. 16.
10. Wold, Brigadier General James W. Letter to the editor, The Times Magazine, supplement to Air Force Times, January 10, 1977, p. 4.
11. _____, letter written to the Assistant for Colonel Assignments, Hq USAF (DPO). From personal files of author. September 21, 1973, p. 2. Name of author of letter not revealed to maintain anonymity.