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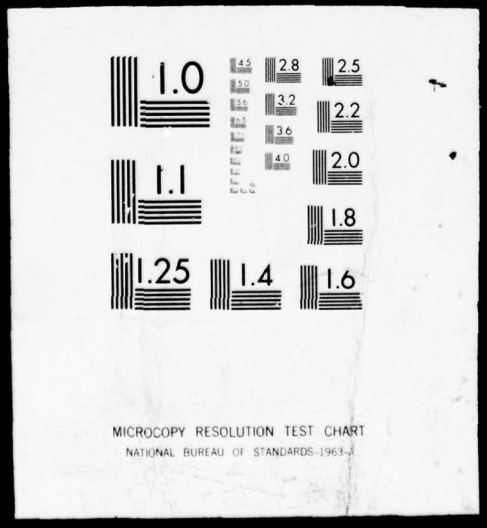

UNITED STATES AIR FORCE

AIR UNIVERSITY

AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

THE ATTITUDES OF FEDERALLY EMPLOYED SCIENTISTS AND ENGINEERS: A FOLLOW ON STUDY

THESIS

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THE ATTITUDES OF FEDERALLY EMPLOYED SCIENTISTS AND ENGINEERS: A FOLLOW ON STUDY

THESIS

Presented to the Faculty of the School of Engineering

of the Air Force Institute of Technology

Air University

in Partial Fulfillment of the

Requirements for the Degree of

Master of Science

by

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Graduate Systems Management

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Preface

In the course of our studies in management the topic of unionization of professional people and the problems associated with it have been of much interest. This phenomenon of professional unions is relatively new and little understood in our society. Prior to the research effort by Richard G. Gilpin and Charles D. Haas in 1974, there was limited empirical data available. This study hopes not to only provide additional information in this area but also to inhance our own personal understanding of the forces that are at play in the realm of unions and professional people in both the private and public sectors of society.

Without the help of several people this thesis would have been much more of a monumental task as it has already been. We extend our thanks and appreciation to our classmates and others who aided us with both their time and effort. Specifically, first to our thesis advisors, Lt Col T. Roger Manley and Maj Charles McNichols. Thanks goes to these gentlemen for their unfailing support and interest in this project, for the technical assistance in helping us to accomplish the statistical analysis that at first seemed beyond our comprehension, for providing counsel and guidance when we were lost and confused, and most important for the unceasing words of encouragement that helped us overcome the seemingly insurmountable obstacles during our moments of dispair. Thanks to Thomas Hurley and his assistant, Doug Buck, from the civilian personnel division of ASD, who provided us with information and materials that enabled us to identify our sample population and distribute the questionnaires. Also, to Sandye Jennings for her understanding and support in typing this thesis.

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Abstract

The purpose of this study was to survey the attitudes of scientists and engineers toward federal government employee unions and to compare those findings to a similar study accomplished two years ago. A questionnaire consisting of 39 demographic-type questions and 30 questions measuring attitudes was administered to 996 individuals. Sixty-nine percent of the surveys were returned in time to be included in the analysis.

Results of the analysis indicated that overall job satisfaction predominates among scientists and engineers. There is general satisfaction with supervision but dissatisfaction with top management. In general, attitudes toward unions and union membership are negative. This negative opinion extends to union practices, powers, and leadership. It appears that the knowledge possessed by the respondents concerning unions does not have a significant impact on their attitudes. The negative conception appears to be rather a product of a considered opinion of the aims and activities of unions and not upon some connotation of the word "union."

Additional statistical analyses performed on the data generally confirm the findings of the previous study. They also show that the attitudes toward unions of the entire work force of scientists and engineers have become more negative. In addition, indications are that attitudes toward the individual's organization have become more negative.

This study thus confirms a previous empirical study and suggests possible areas which might be fruitful for further investigation.

I. INTRODUCTION

Background

During the last several years, unions appear to have lost ground in their battle to represent workers in collective bargaining with employers. While the number of individuals represented has increased, the percentage of the total work force represented has declined (29:65). However, there are groups within the work force which have shown marked advances toward unionization. One of these groups is government employees (26:35).

Blue-collar federal employees are heavily organized, and now union leaders are looking at white-collar workers as a potential source of many new union members (27:14). Attempts to organize white-collar employees are not so strange as they might seem, since these attempts are following successes in the organization of white-collar employees in the private sector (15:8).

The ability of a union to organize a group of employees for collective action is directly influenced by the attitudes those individuals hold of their employment, their employer, and unions. Therefore, an understanding of these attitudes is valuable to union leaders in determining whether or not organizational efforts are likely to succeed. Similarly, it is important to managers, for by focusing on employee concerns and satisfying employees' needs it is possible to ward off the threat of having to deal with a union.

As indicated by the title of this thesis, this effort will be follow-on study. It is a continuation of the research undertaken by Captains Richard G. Gilpin and Charles D. Haas concerning the attitudes of federally employed scientists

and engineers toward unions. This study will be conducted in much the same manner as the Gilpin and Haas investigation. As a result of lessons learned in the earlier effort, however, it will be somewhat broader in scope. Our intent in undertaking this research is to provide a data base which might be valuable to both management and labor concerning the attitudes of scientists and engineers and to indicate any trends which might exist in those attitudes.

The Problem

The problem which will be addressed in this thesis is twfold. The first portion deals with the fact that there is little empirical data available concerning the attitudes of federally employed professions toward unions. This study will add to the data that does currently exist. The second portion of the problem deals with the fact that conditions are constantly changing, and therefore information must be periodically updated in order to be useful. The information gained from this investigation, combined with the previous study, will allow some conclusions to be drawn concerning trends in attitudes of the population concerned. These trends will be specific in some cases or may be generally applicable in others.

Trends and Data. Executive Order 10988 is now nearly 15 years old. The order opened the way for federal employees to organize and bargain with government management representatives on a limited scale (3:121). Large scale organizing efforts have taken place since that time, but they have been aimed primarily at blue-collar workers. Between 1963 and 1975, for example, the American Federation of Government Employees (AFGE) has tripled its membership and now represents

over 600,000 federal employees primarily in blue-collar jobs (3:120). Despite this fact, there is still little information available for the use of either management or labor representatives in determining the needs and desires of white-collar federal employees.

A second aspect of the problem is indicated by the fact that in the American work force, professional and technical employees are the fastest growing segment and now constitute one seventh of the entire work force (3:120). As the character of the work force is changing, so seems to be the attitude of these white-collar employees toward unions. Private sector unions have made significant gains amoung professional employees in the last fifteen years, and white-collar workers now make up 17.4 percent of all union membership with about 3.8 million members (3:120).

It seems logical to conclude from the above that federally employed white-collar employees may be prime candidates for organization. Government employee unions are growing at astonishing rates, and private sector white-collar unions are doing likewise. But, one might ask, how is this a problem?

Results of Unionization. It might be said that this growth of unions in both public and private sectors is not bad, and is in fact good because it is the way businees is done in the United States. However, there are notable exceptions to this opinion, particularly when one talks about the taxpayers' money. Such a notable as Senator Strom Thurmond expresses the opinion:

> "Government is government only because it and it alone has the power to rule by compulsion. Are we to have sovereign government or are we to have public sector collective bargaining? We cannot have both" (26:45).

Other public leaders express the opinion that union leaders are irresponsible, and

that when they use the strike in the public sector they are using a political weapon and not strictly an economic one (26:43,49).

While some of these opinions may be posturing of a sort and therefore somewhat overstated, they indicate that it might be advantageous to examine what things might change as unions become stronger and laws undergo change. This examination will be most useful to this study when it is brought to the level of federally employed white-collar workers. Although salaries are governed by law and therefore would not now be subject to negotiation, there are many areas which might be affected. One of these areas might be the level and distribution of fringe benefits, which, although not a direct salary payment, could be costly to the government as an employer. Another change which might take place is the institution of a formally administered grievance system creating more work for supervisory and management personnel. An additional area which might reflect directly upon budget constraints might be negotiations concerning working conditions, overtime pay, and type of work employees are allowed to perform (24:15)(15:8). These are by no means all the areas which might be affected should these white-collar workers decide to unionize, but they point the way to decreases, possibly significant, in the flexibility exercised by management in performing its role within the organization.

As was stated earlier, the ability of a union to organize a group such as scientists and engineers must rest upon their attitudes toward the union, their employer, and their work. Consequently, these attitudes are the focus of this investigation. This research provides data base upon which management and labor may base decisions concerning the feasibility or desirability of unionization.

Organizations to be Surveyed

The organizations surveyed during this research effort are all located at Wright-Patterson Air Force Base. Most of these organizations are part of two major organizations which constitute the majority of the laboratories at Wright-Patterson employing scientists and engineers. The first is Aeronautical Systems Division (ASD), the largest of the organizations surveyed. ASD is a component of Air Force Systems Command (AFSC) and has within it another organization which was surveyed, the 4950th Test Wing. The second major organization included in this study is also within AFSC at the same organizational level as ASD. That organization is the Air Force Wright Aeronautical Laboratories (AFWAL.) AFWAL was established in 1975 for the prupose of consolidating four major Air Force laboratories: the Flight Dynamics Laboratory (FDL), the Avionics Laboratory (AVL), the Materials Laboratory (MTL), and the Aero Porpulsion Laboratory (APL).

Two other organizations involved in scientific and engineering work are included in the survey. They are the Aerospace Medical Research Laboratory (AMRL) and the Human Resources Laboratory (HRL). These two laboratories are primarily involved in providing information concerning the medical and human factors associated with any weapons system.

Objectives

With regard to the preceeding discussions, the objectives of our research are:

1. To survey the attitudes of federally employed scientists and engineers at several Wright-Patterson Air Force Base laboratories toward unions. This will not only provide data for our research, but it will serve as a data base for

possible future studies.

2. To use the results of this survey to either confirm or dispute the findings of Gilpin and Haas concerning the attitudes of these professionals toward unions.
3. To attempt to establish a cause and effect relationship with respect to the attitudes scientists and engineers hold toward unions.
4. To attempt to draw conclusions concerning trends in attitudes toward unions among federally employed scientists and engineers.

Scope and Assumptions

In order to limit the scope of this research effort, the survey is limited to a sample of professional civilian workers employed by the federal government at Wright-Patterson AFB. The group consists mostly of scientists and engineers, and it is essentially the same population used in the Gilpin and Haas study. There have been some limited additions for broadening. Technicians have been included and are considered as being professionals. There are approximately 3000 of these professionals employed at Wright-Patterson, and the survey sample of approximately 1000 is drawn from a compterized list obtained from the Personnel Division of the Aeronautical Systems Division.

The successful outcome of this study is based upon the following assumptions:

1. The randomly selected sample of scientists and engineers will serve as a representative cross section of all the 3000 population.
2. Personnel responding to the survey will be truthful and unbiased in expressing their attitudes toward unions since their anonymity will be ensured.

3. In order to draw any general conclusions, recognizing that there may be some unique properties which characterize this population due to local conditions, they are essentilly representative of all federally employed scientists and engineers.

With this statement of the assumptions governing this survey effort, the basic questions of why the research is being conducted, what is to be accomplished, and what the bounds of the effort are to be are answered in brief. The following chapters will define the state of being of this portion of public sector employment, describe exactly how the research is conducted, and finally present the findings derived from the data gathered.

II. SURVEY OF THE LITERATURE

As part of this thesis effort, the writers conducted a survey of the literature concerning efforts toward unionization of professionals, particularly scientists and engineers, during the past two years. The purpose of this literature search was to gain a general appreciation for the economic, political, job market and other factors that may have a bearing on the actions of unions to organize scientists and engineers in both the private and public sectors.

This study examines the attitudes of essentially the same survey group evaluated by Gilpin and Haas two years ago. Since this group is just a small segment of the total number of scientists and engineers in the United States, local factors may have a significant bearing on the outcome. Therefore, the conclusions of the current survey may not be generally applicable to scientists and engineers in research development, test and evaluation (RDT&E) throughout the United States. In an attempt to gain some understanding of the possible impact of local factors on the attitudes of the respondents, research was conducted in the form of interviews and a literature search. The information gathered from this research has placed the authors in a better position to distinguish between local and outside (state of the world) factors that may influence the findings.

These two sources, the information gained from the current research and the findings of the Gilpin and Haas survey effort, provide the bases for the expected results of the current survey and a possible rationale for the results that are obtained.

Factors Bearing on Attitudes

Economic. Economics is of prime importance to the membership of any union.

Any organization which would represent scientists and engineers must therefore recognize and deal with several economic factor.

The most recognizable factor is certainly income. During the last few years there has been a general reduction in the pay scale of scientists and engineers in terms of real income (4:43). Government engineers appear to be just about keeping pace with their civilian contemporaries in the technician and higher-level engineering positions. However, the beginning government engineer is well below his civilian counterpart (23:70). This fact is likely to become more important considering current attempts to maintain a five percent ceiling on government salary increases.

Another economic factor to consider is wage compression. Wage compression occurs when an individual receives relatively large salaries and raises early in his career and progressively smaller raises as his seniority increases. Typically, this results in a senior scientist or engineer working next to one several years his junior with little difference between their salaries. This wage compression is important not only within an occupational group. It also becomes a factor when one considers the relative incomes of various occupational groups. For example, as the difference in pay between an engineer and, say, a welder narrows within a span of ten years, the engineer may well believe that he deserves more (14:33). These forces which are at work now may well have an adverse effect upon the older worker and make him more amenable to union representation. In addition, projections indicate that this wage compression is likely to be more significant in the next decade (4:41). Many of the more senior engineers who do not advance into supervisory roles may be doing the same work they have done in the past, and the younger workers may move up even faster than the current rate due to increased compression.

A third economic factor, which may not be known to many potential union members, is that many unions provide their members with services such as low cost insurance programs and wholesale pharmaceutical supplies. As unions make stronger attempts to represent professionals, knowledge of such programs may enhance the union in the eyes of some employees.

A final factor to be considered is that federal employee fringe benefits amount to 32 percent of employee wages while private sector employees receive only 28 percent (25:69). As government efforts to conserve funds become more intense there is the threat of erosion of these benefits. As the differential between benefits in public and private employment decreases or reverses, some employees may begin to feel that a union might be able to help them maintain some of their fringe benefits.

Job Security. With increasingly tight budget constraints and continuing conservation measures within government employment, some public unions may very likely shift their bargaining emphasis from strictly economic factors to job security issues (24:92). Organizers are now beginning to promise that there will be no more arbitrary layoffs and that those that do occur will be done using some systematic scheme, possibly seniority rule alone (12:92).

In order for unions to be successful with this line of reasoning, however, the employees must be concerned about job security. The research done by Gilpin and Haas prior to administering their survey indicated that there should be a positive correlation between concern about job security and interest in in unions. However, the results of their analysis indicated that scientists and engineers felt that unions were not at that time capable of allaying any concern that might have existed regarding job security.

Another facet of job security to be considered is the practice of hiring newly graduated engineers, seeding the engineering team with the latest knowledge they bring with them, and then eliminating them from the payroll. This is occurring in the private sector, and it may also afflict the public sector to some extent either by design or happenstance (21:14). Should government employees feel that this practice is being used, younger employees might well feel a union affiliation would be helpful.

Individuality and Professionalism. The idea of individuality as it is used in this investigation concerns the ability of an individual to affect his work and environment. A large organization tends to inhibit the individual employee's ability to influence the decision-making process. As organizations grow in size and individual action with regard to decision inputs becomes less productive, the union argument is that group action is the only way to make a dent in the decision-making process.

Previous studies have revealed that as longevity increases, employees get the feeling that they are progressively less able to affect decisions and that their attitudes toward unions therefore become more favorable (11:19). However, the Gilpin and Haas study revealed no such significant trend among government scientists and engineers. They did discover that scientists and engineers feel they can affect decisions up to about the 15-year point in employment. After that they tend to believe that a union might be helpful. Overall, Gilpin and Haas found that government employees considered themselves to be treated well and to have the ability to influence their situation. They are therefore not favorably inclined toward union efforts with regard to enhancement of their feelings of individuality.

Another factor closely tied to individuality is the opinion of oneself as a professional. This opinion may derive from many things such as duty title, type of work performed, or educational background. The traditional antipathy of professionalism and unionism seems to spring from a feeling among those who identify themselves as professionals that they are somehow above all the activities associated with unionism. Many feel that, because of the work they perform, they enjoy a 'special relationship' with management (14:42). The fear is that if they engage in union activities they will, in their own eyes and possibly in the eyes of management, lose that 'special' status.

There are several factors that must be considered when investigating the effect of professionalism on attitudes toward unions. First of all, the large size of an organization tends to create routinization of tasks which in turn tends to lessen an individual's feeling of professionalism. Second, a professional may be performing duties which he does not consider professional, such as record-keeping and filing. Finally, the manner in which he is treated by the people who manage his work contributes to his feelings of professionalism.

Personnel Administration. Personnel administration is concerned with the promotion system, working conditions, management-employee relations, and organizational effectiveness. Previous studies have shown that fair, perceptive and impartial supervision and administration are vitally important in determining employee attutudes toward unions (11:29). The evidence seems to indicate that if an organization is well managed the employees will feel that a union is unnecessary. It is interesting to note, then, that it is in this area that Gilpin and Haas found the strongest appeal for union acceptability among federally employed scientists

and engineers. According to their study, the promotion system is viewed as a weak area by working scientists and engineers.

However, other positive factors concerning administration and organizational effectiveness seemed to outweigh the weakness of the promotion system (11:113). Working conditions in the organizations were viewed as acceptable; first-line supervisors were thought of as fair and impartial in their treatment of employees; and the management of the organizations was viewed as competent and effective. Therefore, the professionals surveyed appear to have made a distinction between the system and the people who administer the system. They have divorced their dislike for the promotion system from their positive evaluation of the organizational management.

Strikes. Strikes and other job actions in the public sector have increased significantly in recent years (26:38). Although they have been confined primarily to state and municipal governments, the 1970 strike by postal workers may have established a precedent for the future. There is no reason to assume that this type of action will be a solitary incident in the federal sector.

The essential argument put forth by unions was summed up by Jerry Wurf, International President of the American Federation of State, County, and Municipal Employees, in a statement recorded in the February 1976 issue of the Congressional Digest, "We believe the right to strike...is a basic right." He goes on to support the idea that strikes need not occur if appropriate alternatives can be found. But he maintains that the right to strike still should exist.

The argument against the right to strike is essentially that when pressure is applied by a union against the government, that action is political and tends to

usurp governmental authority (26:63). This argument appears to be essentially the feeling of most scientists and engineers surveyed in the Gilpin and Haas study (11:110). An interesting corollary finding is that the attitudes of scientists and engineers toward the use of the strike has little influence on whether or not they favor union membership.

Conception of Unions. One of the major findings of the Gilpin and Haas study was that government scientists and engineers generally hold a negative opinion of unions. They found that even when those negative opinions were not strong there was firm opposition to union membership.

Gilpin and Haas set forth two prime reasons for this negative conception of unions. The first was that it may appear from news media reports that the prime activity of the union is to initiate and manage strikes. This idea runs counter to their sense of professionalism as discussed earlier.

The second reason is that professionals fear the power unions might wield, either directly or indirectly, over the performance of their jobs and their work lives. There have been many scandals concerning communist domination, racketeering, and gangsterism in unions. According to one source, "the graft and corruption in unions are epidemic..." (14:45). Gilpin and Haas suggest that fears concerning these types of highly publicized activities contribute to the negative conception of unions among scientists and engineers.

Since the completion of the Gilpin and Haas study, there have been a number of successful union drives in the private sector aerospace industry (28:26). It appears possible that, since the previous study, forces within the environment may have altered this negative conception of unions by scientists and engineers.

It is possible that scientists and engineers are becoming more confident of union lobbying capabilities and less concerned with the apparent stigma previously attached to union membership. It is also possible that they are better informed than previously due to activities of such groups as the Council of Engineers and Scientific Organizations which gives frequent indications of adopting the tactics of trade unionism.

Educational Background. Previous studies have shown that an individual's opinion of unions varies inversely with his educational level (11:34). The Gilpin and Haas research tends to support this finding. However, there may be other contributing factors. With increasing education usually comes higher pay, more fringe benefits, more influence upon decision-making, and a myriad of other factors which might affect the opinion one holds of unions.

This thesis will again attempt to measure the effects on employee attitudes of educational level as a separate entity and draw some conclusions about the validity of the premise that opinions of unions vary inversely with educational level.

Sex and Age. Previous studies have indicated that sex is not a determinant of opinions concerning unions (11:35). In addition, there are very few women included in the current survey group. The response would thus be so limited as to be useless for measuring attitudes. Consequently, questions related to the sex of the respondent have been deleted.

With respect to age, previous studies have indicated that as age increases, individual attitudes toward unions become less negative (11:36). This may very well be due to the fact that as an individual approaches retirement he becomes more concerned about job security and his ability to maintain the retirement benefits

he has planned for. The Gilpin and Haas study revealed this same trend of a weakening negative attitude toward unions by older workers. However, among federally employed scientists and engineers this phenomenon occurred to a lesser extent than in many of the previously cited studies. In addition, even though scientists and engineers became more tolerant toward unions as age increased, the overall opinion was still negative with regard to joining a union, regardless of age.

Employment Background. Employment background concerns such subjects as the employee's position, what type of work he is engaged in, how long he has worked at his job, how long he has been a member of the organization, and his degree of specialization.

Gilpin and Haas subscribed to the theory that scientist and engineers did not constitute a homogeneous group with regard to their attitudes, and their research seems to have borne out that theory (11:37). They found that scientists were more pro-union than were engineers. It does seem unusual, however, that scientists and engineers working side by side at substantially the same work should differ significantly in their attitudes. In fact, one supervisor who was interviewed told the writers that the scientists in his organization thought of themselves as engineers. Therefore, this survey will again attempt to determine whether there is a significant difference between the attitudes of those who perceive themselves as scientists and those who see themselves as engineers.

The Gilpin and Haas study also indicated that employment background may have many constituent parts which contribute to attitudinal results (11:119). Much of their analysis consisted of a discussion of longevity, which affects several other factors.

They found that, in general, as longevity increased, opinions about organizational effectiveness became more negative. There was also ambivalence in attitudes toward some union actions based on longevity, salary, and grade level (interdependent factors to a large extent). However, like many of the other factors, employment background had no effect upon the negative attitudes of scientists and engineers toward union membership.

Degree of Professional Development. Factors considered under professional development were: attendance at formal professional courses; number of articles published; and number of patents awarded. No clear trends were indicated by the Gilpin and Haas study, and no other conclusive information was uncovered concerning how an employee's professional development might affect his attitudes toward unions.

Past Experience with Unions and Union Members. Three factors will be considered with respect to past experience: whether the respondents' parents were union members; whether their friends have union affiliation; and whether they themselves have had any previous experience with unions. The most significant point regarding these factors is the individual's perception of the advantageous or disadvantageous nature of their contact with unions.

Previous studies have indicated that these three factors bear a direct relationship to the opinions an individual holds of unions (11:39). The Gilpin and Haas study was no exception. According to their analysis, this was the most decisive determinant of attitudes toward unions (11:122). They indicated that those who had previous contact with unions had much stronger attitudes, whether favorable or unfavorable, than those who had no prior union experience. This was particularly

true in the case of those who had previously been union members. Those individuals were much more favorable toward unions than the rest of the sample if they perceived that the unions had been helpful to them. Even among this latter group, however, there was still oposition to membership in a union of scientists and engineers.

Local Factors

Inputs. One sourse of current information is from interviews with people in the organizations surveyed. One of these organizations was the Air Force Wright Aeronautical Laboratories (AFWAL). AFWAL is composed of four laboratories with the following numbers of scientists and engineers in each:

Organization	Number of Scientists/Engineers
Air Force Avionics Laboratory (AVL)	517
Air Force Aero Propulsion Laboratory (APL)	244
Air Force Flight Dynamics Laboratory (FDL)	589
Air Force Materials Laboratory (MTL)	251
Wright Aeronautical Laboratories, Hq Section (WAL)	14

Because in the past two years AFWAL has seen some of the most unstable conditions at Wright-Patterson with respect to major organizational changes, two members of AFWAL were interviewed. One is an engineer who holds a top echelon management position and the other an engineer in one of the laboratories who currently is a union member. These interviews provide contrasting points of view.

An interview was also conducted in another major organization which was surveyed, the 4950th Test Wing. There has been little change in personnel in the 4950th over the past two years. A civilian engineering director in this organization was chosen as an interviewee. He was chosen to be interviewed because his vantage point in the organization enabled him to provide information concerning what is occurring throughout the organization.

Another source of current local information is the Department of Defense (DOD) Laboratory Utilization Study which was done in 1974-75. The results of this study were the bases for many organizational changes at Wright-Patterson and a cause of some concern and uncertainty among the personnel involved. The study provides much insight into management and personnel problems and weaknesses. The following sections will present the pertinent results of the DOD study and the interviews mentioned previously.

DOD Laboratory Utilization Study. Currently 11,000 civilian and military personnel are engaged in RDT&E for the Air Force, 32,000 for the Navy, and 19,000 for the Army. The Air Force civilian grade structure in the laboratories is higher than any other organization in the Air Force or other government laboratories. This situation inhibits the movement of employees into different jobs within their fields. This lack of job mobility is detrimental to promotion opportunities.

Because of these factors, promotions are primarily internal to the organizations. This has a tendency to stifle innovation and inhibit career growth of younger employees. The low turnover and lack of mobility also decrease opportunities for career broadening in some cases, preventing the most competent and experienced people being placed in appropriate positions.

In addressing these issues, the study recommended a new purpose or direction for the laboratories. It advised that emphasis be put on applied rather than basic research and that there be a gradual phase-out of in-house research. One of the recommendations which was carried out in July 1975 was to disband the Aerospace Research Laboratory (ARL) at Wright-Patterson because it was primarily involved in in-house research.

Another finding of the DOD study was aimed at correcting weaknesses in administration. It reported that there were too many reporting and inspection activities to which the laboratories had to respond. The creation of an overall administrative organization was recommended to help aleviate this problem.

AFWAL. The Air Force Wright Aeronautical Laboratories was formed to fill this requirement mentioned above. It placed AVL, MTL, FDL, and APL all under one organization. The effect of this was to remove the laboratories one organizational level further from AFSC Headquarters. Another result of this administrative action was the disbanding of ARL. This action resulted in a certain amount of upheaval, uncertainty, and hardship as employees of ARL were released or shuffled about to new jobs. While many scientists and engineers had to accept jobs at grade levels one to three levels below their previous ratings, the majority of these retained their higher grade salary, and hope for promotions to reinstate them to their previous grades. Some who were unable to find new jobs took the option of early retirement. Others were released.

According to the individuals interviewed in AFWAL, external factors do not seem to be of much importance to scientists and engineers in the laboratories. The individuals indicated that, in the area of economics, the employees in AFWAL seem

to be satisfied and feel that they are economically comparable to their peers in the rest of the United States both in the private and public sectors. They further indicated that there is general apathy toward unionization efforts and successes in the private sector or declared intentions of unions in the public sector. The area of primary interest to the scientists and engineers concerns federal spending policies, that is, the threat of cutbacks in research efforts and public ignorance or infatuation with welfare at the expense of national security.

The only factors acknowledged by the interviewees as having a bearing on the attitudes of scientists and engineers are the internal factors. Work force size or changes in the size do not seem to be a factor. However, the reorganizations that have taken place have the potential to effect a significant change in attitudes. The demise of ARL with the accompanying traumatic experiences of some employees and the rumors which accompanied that event may well have resulted in diminished confidence in management's concern for the well-being of the employees. This perception apparently created a brief surge of interest in unions and what they might be able to do to help employees.

It is of interest to note that some scientists and engineers felt that local unions, of which they were not a part, should do something for them. The observed interest in unions, however, appears to have since diminished, and the scientists and engineers now seem to be unconcerned about the possibility of such events occurring again.

The interviewees seemed to believe that the formation of AFWAL has been perceived in a negative light by scientists and engineers. They expressed the opinion that scientists and engineers in the laboratories consider AFWAL to be ineffective and destined to eventually whither away; that it obstructs and hinders

the normal efficiency of the laboratories and their relationship with the decision-making functions of AFSC; and that AFWAL's only visible contribution is the creation of unneeded paperwork. Its existence creates some fears as well. Rumors exist that AFWAL may be part of a possible transition of the laboratories from AFSC to Air Force Logistics Command or Aeronautical Systems Division, which appears to have raised concerns about job security.

Based on these interviews, the impressions received were that scientists and engineers feel there is need for improvement in both upper and lower echelon management; AFWAL is highly centralized in its dealings with the various laboratories; and AFWAL staff personnel are very much concerned with detail and demand a large volume of reports while in turn providing little guidance. In short, two-way communication seems to be lacking.

A major concern expressed during the interviews was that the laboratories themselves are hobbled by improper management due somewhat to improper job assignments as discussed earlier. This point was illustrated, during an interview, by an example of an engineer who is used as a supply clerk instead of in the job for which he was trained. In addition, doubt was expressed concerning the ability or interest of supervisors in handling complaints.

One area needing improvement within AFWAL appears to be that of communication. The interviewees expressed the belief that AFWAL is a secretive organization. Therefore, an active informal communication network or grapevine has apparently developed and is the favored channel of communication. For example, there is a study entitled AFSC-85 which contains a projection of AFWAL and its role in 1985. The study was performed in secrecy, and its existence became known to scientists

and engineers only through rumors. This secretive atmosphere apparently rankles middle management and presents a barrier to open and honest communication.

Another factor which appears to be very important to scientists and engineers is recognition and rewards. To the scientist and engineer, fairness is very important. In doing his job he looks for peer acceptance, and he has his own personal standards by which to judge himself in what constitutes a good job. He feels that his just reward for doing a good job is the opportunity for advancement. In the laboratories there is no effective system for weeding out the less competent individuals, according to the interviewees. This is considered unfair, and it acts as an irritant to some scientists and engineers.

A final factor identified by the individuals interviewed was that some policies promulgated by AFWAL have become irritants. A recent money-saving policy serves as an example. This policy will eventually reduce the grade level of all positions. An average journeyman engineer has gone from a GS-13 to GS-12. Division chiefs, which are normally GS-16 jobs, are being filled by GS-15 personnel with no pay grade promotion accompanying the increase in responsibility. There is also the practice of filling civilian vacancies in some of the supervisory positions with military personnel in an acting capacity. In addition, there is a procedure for rewarding those who have done outstanding work with salary increases. But because of the limited funds available for the Quality Salary Increase (QSI) Program, there is resentment for the perceived favoritism shown minorities for QSI's.

Based upon these AFWAL interviews, several observations may be made in summary. Most employees feel that they are secure in their jobs and are satisfied with their economic standard. The opinion of most is that management could be significantly

improved. There appears to be a problem concerning intraorganizational communication, but this problem seems to affect primarily middle management. Promotion possibilities are not especially bright. Finally, unhappiness has been expressed concerning the fairness of the promotion system. However, even considering these problems, the interviewees believed that scientists and engineers in AFWAL are somewhat anti-union, although a shift toward pro-union feelings could not be excluded.

4950th Test Wing. According to the individual interviewed, the engineers in the Test Wing appear to be generally satisfied with their work and have enjoyed a degree of stability. The work force size has been relatively stable for the last two years with a slight increase from 190 to 202. The only reorganizations that have occurred were internal to the Wing and did not significantly affect the engineers themselves.

Concerning economics and job security, the engineers feel that they are being paid adequately for their work and that their salaries compare favorably with their contemporaries in the private and public sectors. What has occurred in the state of the economy has not significantly affected the engineers. According to the interviewee, the only problem recognized by the engineers themselves is that the work done at the Wing, over a period of time, causes them to overspecialize in a particular field, This overspecialization makes it difficult for a senior engineer to find a job in the private sector should he decide to quit the government and seek a job in industry. Finding a job in his particular field of specialization limits the availability of possible positions he can compete for in the open market. If an engineer wishes to leave he must do so early in his career while he still retains a relatively general

knowledge and experience that is more easily marketable.

Keeping in mind that the interviewee was a manager, the management structure and the supervisor-employee relationship in the Wing was viewed as very good. The Wing organization is decentralized with a large span of control. That is, there are few people between the top and bottom levels. The engineers are treated in a mature manner and given much responsibility and trust in doing their jobs. The engineer is provided with job assignments and some direction, but self-initiative and autonomy are encouraged and supported. The engineer is kept aware of what is going on in the whole organization and is allowed to participate in management decisions due to communication on a personal basis between engineers and all echelons of management. When an engineer performs a job, he is aware of the impact of what he does on the successful accomplishment of the Wing's mission.

Based upon the observations of the individual interviewed, there appears to be no pro-or anti-union sentiment in the 4950th. The engineers apparently feel no need for any form of employee organization because of the feeling of being a part of the decision-making process.

III. Methodology

This chapter answers the important question of "How" the objectives of this study were accomplished. The first half of this chapter covers the creation and distribution of the questionnaire used to measure the attitudes of the scientists and engineers at Wright-Patterson AFB. The second half of this chapter explains how the data, collected from the survey, is converted into useful information. A discussion of the different statistical computer programs used in data analysis comprises a major portion of this section of the chapter.

Questionnaire Construction

The study Gilpin and Haas conducted two years ago measured the attitudes of the scientists and engineers towards unionization and identified some factors that may have influenced these attitudes. This study measured the attitudes of the engineers and scientists, and additionally examined possible factors which may have a bearing on these attitudes. The findings of this research also were compared with those of the previous study.

The Gilpin and Haas questionnaire, although modified and expanded somewhat, was used in this study. By using this instrument, it is possible to identify changes which have occurred over the past two years. Also, by using a similar questionnaire this study would confirm the findings of the previous study. This confirmation is possible if the same demographic and attitude relationships found in the Gilpin and Haas were also found in this study.

Modifications to the Gilpin and Haas instrument were primarily intended to broaden its scope and discriminatory power. Some questions were eliminated because

they were found to lack significance, or they were condensed for brevity. Some additional questions were adopted because they were found to be productive in other studies. This section will discuss the changes that were made in the survey and the reasons for these changes.

The Gilpin and Haas questionnaire was composed of two sections: the first was made up of 28 questions measuring respondents' attitudes toward unions; and the second section was composed of 31 questions that provided personal information (11:138-154). The questionnaire used in this study is composed of 69 questions and is also divided into two sections. A copy of the questionnaire is provided in Appendix A. The first section of the questionnaire is composed of 39 questions and addresses possible factors that may have an effect on attitudes toward unions. The second section of the survey is composed of 30 questions that measure attitudes toward unions and one's organization.

The first major change from the Gilpin and Haas instrument was altering the order of the questions as noted above. Questions about personal information were presented in the first section of the survey. The reason for this change is that these questions required little effort or time to answer. Hopefully, this would make the respondent comfortable and prevent any apprehension toward the rest of the survey. The second half of the questionnaire dealt with assessing the attitudes of the respondent toward unions and his organization.

Questions 1 through 30 concern demographic and other information that may provide a rationale for the attitudes expressed by the respondent. This section contains most of the questions used by Gilpin and Haas in their second section of 31 questions. It is in this section that a number of modifications were made. However, the addition,

deletion and consolidation of questions in this section resulted in little, if any, change in the measurement of significant factors used by Gilpin and Haas. Instead, the changes provided greater scope and more information.

Questions 6, 12, 26, and 30 in the personal information section of the Gilpin and Haas questionnaire were eliminated altogether in this study. Question 6 requested the respondent's college major, and was found to have very little relationship with any of the attitude questions. Questions 12 and 26 of the Gilpin and Haas study sought information on the sex and ethnic background of respondents. The Gilpin and Haas analysis showed no correlation with these factors and the variables of interest. Question 30 dealt with where a person had lived between the ages of 6 to 17. This question did have a strong correlation to many other factors, but due to the stable survey population over the past two years and the fact that most were from the local area, it was not considered necessary to address this factor again.

Besides eliminating questions in the interest of brevity, questions were added to provide additional information about the population and to explore other possible factors that may influence one's attitude toward unions. These additional questions were drawn from three other questionnaires: the Quality of Life in the U.S. Air Force (QOAFL); the Air Force Management Improvement Group (AFMIG) survey of the Quality of Life of Civilian Air Force Employees; and a questionnaire created by members of the AFIT faculty and used by researchers to explore attitudes toward military unionization.

Seven questions were used from the QOAFL surveys and added to the personal information section of this questionnaire. These additions comprised questions 12, 14, 15, 16, 23, 24, and 31 of this questionnaire. The questions were included

because they provided greater breadth and detail in the areas of job satisfication and personal well-being. The questions address the factors of personal growth, economic standard, economic security, free time, work (job satisfaction), leadership/supervision, and personal standing.

Seven questions were used from the military unionization attitude survey of military personnel. Three of these questions provide additional information on attitudes toward job and supervisor and were included to see if they affect one's attitude toward unions. One question asked the participants in the survey if they were presently members of a union. This question was not addressed in the Gilpin and Haas study. The researchers were aware that some scientists and engineers at Wright-Patterson AFB are members of a union even though there is no union representation in the laboratories. This provided comparison between union and non-union membership in their attitudes and demographic factors, assuming those who are union members would be among the respondents to the survey. The last three questions from the military unionization survey comprise questions 34, 35, and 36 of this survey and were used to consolidate questions 24, 27, 28, 29, 39, and 31 of the Gilpin and Haas questionnaire. This was accomplished without affecting the information provided from the more numerous Gilpin and Haas questions.

Three questions from the AFMIG Civilian Employees survey were introduced at the end of the first section. Questions 37, 38 and 39 were used to see if one's knowledge about unions is related to one's attitude toward unions. It was thought that those engineers and scientists who display some understanding of public sector unions may be more favorable toward unions.

The last section of the questionnaire dealt with the attitudes of respondents toward

unions and their organization. Questions 40 through 69 comprise this section. Very little was done to alter this section from the questionnaire used by Gilpin and Haas.

Question 21 in the attitude section of the Gilpin and Haas questionnaire sought information concerning respondent perceptions of the honesty of union officials. It was replaced by question 60 which addresses whether union officials are preceived to act in the best interest of union members.

Question 28 in the Gilpin and Haas survey was a two part question. In this questionnaire the question was broken out as Questions 67 and 68. This facilitated data encoding.

The Gilpin and Haas study only addressed the idea of joining a union. This questionnaire included an additional question, Question 69, that explored the attitudes of the respondents toward joining an association to air grievences. This question was incorporated in an attempt to discover whether the respondents are against collective bargaining or have an aversion to the word "unions".

Questionnaire Distribution

The population on which the study was conducted is basically the same one used by Gilpin and Haas. Mr. Tom Hurley, who is the Chief of Management Service of Civilian Personnel, ASD, and his assistant, Mr. Doug Buck, were very helpful in providing a list of the scientists and engineers at Wright-Patterson AFB. The computerized listing provided the name, job title, grade scale (GS) rating, work address, and organization. This lisiting also included those scientists and engineers who hold positions as managers and supervisors. In addition to the organizations surveyed by Gilpin and Haas, Aero Medical Research Laboratory (MRL), and Human

Resources Laboratory (HRL) were included as part of the population. As noted in Chapter II, the Aeronautical Research Laboratory (ARL) was eliminated.

The Gilpin and Haas study involved a population of approximately 2600 with a sample size of 774. This sample size constituted approximately 30 percent of the total population. Since they were interested in the attitudes of the younger members in the population who would exert a significant influence in possible future trends toward unionization, a 100 percent sample was taken of the scientists and engineers in GS ratings of 7 and 9. Gilpin and Haas sent out a total of 200 questionnaires to GS 7's and 9's, which made up approximately 26 percent of the total sample. The remaining sample was selected randomly from the rest of the scientists and engineers.

The computer listing provided for this research listed approximately 3000 people holding scientist, engineer or technician positions. From this population a random sample of 1000 (33 percent) was drawn. To ensure comparability with the Gilpin and Haas findings, 100 percent of the GS 7's and 9's were also taken. The number in this group was 240, which is about 24 percent of the total sample.

The only deviation from the Gilpin and Haas sampling criteria was to do a 100 percent sample of the population in the 4950th Test Wing. This was done to satisfy a request by the Wing Commander. Doing so did not present a problem to this research effort in the treatment of data since the bias induced by this sample was easily adjusted for. This adjustment is discussed later in the chapter.

Following is a listing, by organization, of the number of scientists and engineers assigned, and the number of questionnaires sent to each organization.

ORGANIZATION	POPULATION	SAMPLE
Aeronautical Systems Division	1326	394
4950th Test Wing	109	109
AFWAL:		
Flight Dynamics Laboratory	545	164
Materials Laboratory	224	60
Aero Propulsion Laboratory	223	82
Avionics Laboratory	483	160
Wright Aeronautical Laboratory	14	4
Aero Medical Research Laboratory	65	16
Human Resources Laboratory	19	7
	3008	996

Questionnaires were mailed through the base distribution system using the address labels provided by ASD Personnel Section. With each questionnaire was attached a blank sheet for comments and a cover letter written by Dr. T. Roger Manley, one of the advisors for this study. The cover letter informed the participant of the purpose of the survey, enlisted his cooperation, and promised feedback of the findings. Also enclosed was a self addressed return envelope. The return envelopes were coded so that one would be able to determine from which organization the replies had come. The purpose of this action was to broaden the scope of the research effort by being able to note differences between organizations, and in no way was it an attempt to identify the respondents.

Bias and Consistency

In any form of statistical analysis and especially in survey analysis, there is the ever present problem of bias which the researcher must resolve. Bias is considered to be any factor which would prejudice the validity of the input data or the accuracy of the conclusion drawn. Gilpin and Haas were concerned about bias in three areas; the survey, the sample, and respondents.

The survey instrument itself can induce a great deal of bias. Loaded questions that develop a train of thought so as to influence the participant's response will bias a survey. Poorly worded questions that are easily misunderstood and lead to numerous interpretations is another bias. There are many other factors that can bias the questionnaire and are beyond the scope of this discussion (11:49-50).

As mentioned, Gilpin and Haas purposefully induced one bias by not being truly random in selection of the sample. A 100 percent sample of the GS 7's and 9's was taken. This resulted in a heavier representation of younger respondents than is in the overall population. The reasons for this were: (1) since the population tended to be older, a heavier sampling of younger personnel was needed in order to explore the factor of age; and (2) the attitudes of the younger respondents will be influencing the labor force in the future and knowning their attitudes might help to predict what may occur during possible future unionization efforts (11:51).

Finally, there is the bias induced by the type of participant who does or does not return a survey. As mentioned by Gilpin and Haas, those who are most interested in the survey and/or are partisan in their attitudes are more apt to answer surveys. This bias is diminished considerably if the response rate is greater than 60 percent. This 60 percent rule of thumb was derived from experience by

both Dr. T. Roger Manley and Dr. Charles McNichols who have been involved in many survey efforts at the Air Force Institute of Technology (11:52).

Where the Gilpin and Haas study was concerned with bias, this study is more concerned with consistency. One of the objectives was to replicate the measurement of the attitudes and to note trends. Therefore, it was desirable to replicate the bias in the Gilpin and Haas study and to eliminate those biases peculiar to this effort. As one can imagine, if those biases found in the previous work are not replicated this is in effect a bias when trying to measure changes.

With this idea of consistency, several actions were taken to ensure a minimum of bias being induced that is unique to this effort. The Gilpin and Haas study had a sample size of 774, which is 30 percent of the population of approxiamately 2600. To maintain this proportion the authors sent out 996 questionnaires to a population of approximately 3000. Likewise, where Gilpin and Haas did a 100 percent sample of the GS 7's and 9's which numbered 200 or about 26 percent. This study did the same, which came to a total of 240 or about 24 percent of the sample.

There are some differences with respect to the organizations surveyed. The previous study involved the 4950th Test Wing, Aeronautical Systems Division, and the five laboratories (Flight Dynamics, Materials, Avionics, Aero Propulsion, and Aeronautical Research)(11:50-51). This study surveyed the same organizations with the exception of Aeronautical Research Laboratory (ARL), which had been disbanded. The disbanding of ARL had no effect on the population distribution due to the fact that most of the personnel in ARL were absorbed into other laboratories which comprise AFWAL. In addition this study included Aero Medical Research and Human

Resources Laboratories to increase the scope of this study.

Analysis Methodology

The data used in this study was derived from the questionnaires that were filled out and returned. Different formats for analyzing the data were used in order to accomplish the objectives of this study and to make allowances for differences in the population and sample distribution.

An analysis was first done with all the available data. The results from this analysis were used to make inferences about all public sector professionals, especially the scientists and engineers doing similar work for the Army, Navy and all other federal research organizations and laboratories.

After the data had been analyzed in its entirety, the next consideration was to have the data in a form similar to the previous study. By replicating the previous research effort a trend analysis was feasible. To do this, only data received from ASD, AFWAL and the 4950th Test Wing in modified form was used. To modify the 4950th Test Wing data so as to be similar to the previous study, 100 percent of the GS 7's and 9's, who responded, and a random selection of 30 percent of the replies from higher GS ratings were used. Also, those respondents recognized as technicians were eliminated from the data base. This overcame the bias induced by this study's sample distribution. Included in this analysis was an additional variable computed from the data. This variable, the combined job satisfaction score (COMSATSCO), was used in the previous study. It was derived by adding the values of the respondents' satisfaction expressed in questions 17 through 20. While these four questions express one's sense of satisfaction in different areas, the COMSATSCO gave an indication of

overall satisfaction. Next, the data was divided by organization and a similar statistical analysis was done for each organization. The results allow one to note differences by organization and draw conclusions about local causal relationships.

To help in analyzing the data, several computer programs were used. These programs accomplished the monumental task of statistically transforming the raw data and presenting the results in a useful form. After this was done, relevant information from the results was used in accomplishing the objectives of this study. The Statistical Package for the Social Sciences (SPSS) was the primary program. This program was developed through close cooperation by members of the faculty from the Universities of Chicago and Alberta who specialized in social science research, computer science and statistics. SPSS is an integrated system of subprograms that provides a comprehensive package designed for the analysis of different types of data collected in social science research (22:xxi). This section will discuss the types of programs used, the types of analysis done by each and the nature of the results that were expected.

The first objective in processing the data was to determine the basic distributional characteristics of responses to each question. Information as to the distribution of responses, their variability, and their central tendencies provided a preliminary overview of the results of this study (22:181). The programs used to accomplish this objective were SURVAN and the SPSS subprogram CODEBOOK.

The frequency distribution tables enabled the researchers to ensure that the data was encoded to the desired specifications and that each question had sufficient variability for subsequent analysis (22:182).

A major problem in the analysis was assigning appropriate values to the responses for each question. The questionnaire involved levels of measurement that were

nominal, ordinal, interval and ratio. This created a problem when calculating the the mean and standard deviation to measure central tendency and variability of the data. Responses to the questions that were either ratio, interval, or ordinal (if treated as interval) in level of measurement were suitable for this analysis. In this survey, questions 10, 26, 29, 33, 35, 36, 37, 38, and 39 were nominal and not suitable for such calculations. Question 26 provides an example of this type of question in that it asked for the present job position of the respondent. The answers were: scientist, engineer, or manager.

To get a better perception of the response distribution, another computer program, SURVAN, was used. The SURVAN program was written by Dr. Charles McNichols, one of the advisors and a professor at the Air Force Institute of Technology. Dr. McNichols provided valuable assistance as a technical advisor in the use of statistics by the authors.

The SURVAN program provided a frequency distribution table similar to CODE-BOOK but was much more abbreviated. The most important aspect of SURVAN and the reason for using it was that a histogram was provided alongside the distribution of responses. This histogram was of considerable aid in providing the researcher with a graphic display of the shape of the response distributions. An additional feature of this program was that it allowed two sets of data to be simultaneously presented in a split bar format. This feature was very useful in providing a simple pictorial display of differences between groups of data. This feature was useful in comparing the results of this study along with the results of the study done by Gilpin and Haas.

After using the programs CODEBOOK and SURVAN to examine the distribution of each question the next step was to investigate sets of relationships between the

questions using contigency table analysis. This was accomplished using the SPSS subprogram FASTABS. The output from this program was the joint frequency distribution tables and the chi-square test of statistical dependency. The mathematics involved in contigency table analysis will not be discussed. Details as to the use of contingency tables can be found in most books on statistics such as Mathematical Statistics by John E. Freund (9:334-337).

FASTABS was used in comparing each question in the attitude section of the survey with each of the questions in the demographic section. This comparing of 30 attitude questions against 39 demographic questions resulted in a total number of 1170 two-way comparisons. These two-way joint frequency tables presented the distribution of answers in such a manner as to allow the researchers to envision logical relationships between questions, if they existed. One of these tables is presented on the following page.

The chi-square statistic was chosen to narrow the selection of possible combinations for in depth analysis of the joint frequency distributions. In all combinations, the chi-square was used to test the hypothesis that the way one answered a demographic question was independent of (had no influence on) the way the respondent answered an associated attitudinal question. The chi-square indicated the probability that the observed relationships were due merely to chance. Small probabilities resulted in rejection of the independence hypothesis.

The chi-square probability or significance levels of .05 and .01 were used in this study for the following reasons: (1) .05 has become a convention in social science for acceptance of statistically significant relationships and (2) the same level of significance was also used in the Gilpin and Haas study. If the same joint frequency

Example of:

Row: Question 41, Unions obtain more benefits for employees than would be obtained without them.

Column: Question 22, How often do you and your supervisor get together to set your personal performance objectives?

COUNT / ROW PCT / COL PCT / TOT PCT	STRONGLY AGREE 1	NO OPINION 3	STRONGLY DISAGREE 5	ROW TOTAL
1 NEVER	70 / 65.4 / 17.9 / 10.4	14 / 13.1 / 10.3 / 2.1	23 / 21.5 / 16.0 / 3.4	107 / 15.9
2 SELDOM	182 / 62.3 / 46.5 / 27.1	55 / 18.8 / 40.4 / 8.2	55 / 18.8 / 38.2 / 8.2	292 / 43.5
3 SOMETIMES	117 / 52.0 / 29.9 / 17.4	51 / 22.7 / 37.5 / 7.6	57 / 25.3 / 39.6 / 8.5	225 / 33.5
4 FREQUENTLY	21 / 48.8 / 5.4 / 3.1	14 / 32.6 / 10.3 / 2.1	8 / 18.6 / 5.6 / 1.2	43 / 6.4
5 ALWAYS	1 / 25.0 / 0.3 / 0.1	2 / 50.0 / 1.5 / 0.3	1 / 25.0 / 0.7 / 0.1	4 / 0.6
COLUMN TOTAL	391 / 58.3	136 / 20.3	144 / 21.5	671 / 100.0

Figure 1

Two-way Joint Frequency Table

distributions were found in this study to be significant as in the Gilpin and Haas study it was felt that these attitude/demographic relationships were reliable and not unique to this study.

The results from the contingency table analysis can change according to such variables as sample size and the number of degrees of freedom. Gilpin and Haas had recorded the attitude questions from five or seven responses to three responses: positive, neutral and negative values. In using the FASTABS program all attitude questions were recorded in a like manner as shown in Figure 1.

Combinations of questions which were both statistically and intuitively related were subjected to more in depth analysis. These relationships were used to indicate possible motivational factors that influenced the attitudes of the scientists and engineers in this study. Also, the results of the contigency table analysis were used to shed light on possible reasons for differences between organizations. Because of the large number of combinations found to be significant at the .05 level, a more stringent significance level of .01 or better was used to prevent the mostly manual and heuristic analysis from becoming too complex for the researchers.

The last form of analysis conducted was to compare the results of this study with the earlier Gilpin and Haas research and to find differences between the organizations of AFWAL, ASD, and the 4950th Test Wing. The analysis tested whether differences in means between groups were significant. To accomplish this, the SPSS subprogram T-TEST was used (22: 267).

The T-TEST subprogram was used to compare two groups of responses. It computed their respective means and variances and provided the significance level for the difference in means. Several assumptions and characteristics of the sample analyzed

were important factors in influencing the result. Both samples and the population were large in value with subsequent large degrees of freedom (greater than 30). It was assumed that the samples were drawn from a normal population. In testing the hypothesis that the means of the sampled populations were equal, the samples were considered to be independent, the variances unequal, and no assumption was made as to which population mean was greater than the other. Therefore, a two-tail significance level was computed. The test of significance provided the probability that observed differences between sample means were due to chance. Again .05 was used as the significance level.

IV. Presentation of the Findings

The previous chapters have concerned the why and how of this survey effort. The objective of the next two chapters is to answer the question of what the results of the survey are and what they mean. This chapter presents the results of the survey and the pertinent information derived from the analysis of these data using the various statistical techniques discussed in the previous chapter. No attempt is made to detail the motives of the respondents or to give any in depth analysis comparing this study with the previous study. The discussion of these findings will be the thrust of the following chapter.

This chapter is broken down into four sections. The first section deals with the response to the survey by total number of people and by organization. The second section presents the results of the techniques employed to analyze the current survey group. This will contain the SURVAN and CODEBOOK subprogram results. The third section is concerned with the SPSS subprogram T-TEST and presents the results of a comparison of the population over time and a comparison of attitudes between organizations. Finally, a second presentation of results from the FASTABS subprogram will provide significant dependencies between various attitudinal variables.

Response to the Survey

As with the previous study done by Gilpin and Haas, this effort enjoyed a favorable response both in numbers of respondents and in the almost immediate return after distribution. Within two days after distribution of the 996 surveys used, over 100 were completed and returned. By the end of the first week after distribution nearly 400 surveys were returned, and by the end of the second week over 600 were

completed. As of this writing 697 surveys have been received. Of this number 10 were returned due to the fact that the individual could not be reached, two were returned unanswered because the recipients stated a desire not to do so, and two were received after the data analysis had begun and therefore were not included. Thus, 683 surveys were used as the data base for this study. The following is a breakdown of the responses by organization:

ORGANIZATION	POPULATION	SAMPLE SIZE	RESPONDENTS
Aeronautical System Division	1326	394	292
Materials Laboratory	224	60	35
4950th Test Wing	110	109	88
Flight Dynamics Laboratory	545	164	100
Aero Propulsion Laboratory	223	82	51
Avionics Laboratory	483	160	102
Aero Medical Research Laboratory	65	16	8
Human Resources Laboratory	19	7	3
Wright Aeronautical Laboratory	14	4	2
Unknown	-	-	2
	3009	996	683

Because of the ground work done by Gilpin and Haas in creating the survey instrument and due to early scaling of administrative obstacles, distribution of the survey was effected early in this research effort. As a result, almost 100 percent of the returned surveys were analyzed. This survey obtained a 69 percent response

rate and likewise 69 percent of the entire sample was used in the analysis. Gilpin and Haas had a 71 percent response rate, but because of time constraints only 496, or 65 percent, of their returned questionnaires were used for analysis. However, all the data collected by Gilpin and Haas is being used in this study for the comparative analysis. This will include those surveys which were not used previously and brings the total to 550, or a 72 percent rate for the Gilpin and Haas data.

Aside from the excellent response rate, a high degree of interest was noted not only by the number completing the survey, but also by those who expressed the desire to know the results. Additionally, many of the respondents took the extra effort to use the comment sheet and provide additional information or express their views, and a good number of those who wrote comments filled several pages. It is of interest that in two cases where surveys were returned with answers blank the respondents did make use of the invitation to write comments and one went to the trouble of writing an informative letter to Dr. T. Roger Manley, the thesis advisor. In the survey cover letter, written by Dr. Manley, it was mentioned that the intent of the researchers was to provide feedback of the results to the respondents, and it is felt that this was an effective inducement for such a good response.

Attitudes of the Current Population

This section will present the results obtained from three methods of analysis: the SURVAN report on the population, and the CODEBOOK and FASTABS programs of the Statistical Package for the Social Sciences (SPSS). Since SURVAN and CODEBOOK provide much the same information, they will be discussed as a single result.

SURVAN/CODEBOOK. As discussed in Chapter III, these two methods of analysis provide the user with graphic and numerical depictions of the survey group. These data are provided in Appendix B for reference. The basic presentation is the output of the SURVAN computer program and the mean and standard deviation added to the output which are derived from the CODEBOOK output. The reader will note that the questions requiring an alphabetic response have been resolved into a numeric format by the formula A=1, B=2, etc, in order to present mean and standard deviation values.

Probably the most easily understood presentation of the results of these two outputs is a word picture of the average respondent to the survey. This word picture is not intended to single out one individual or group of individuals within the overall population as most important. However, since the survey group was chosen using random techinques and is designed to be representative of the population as a whole, this discussion should give the reader a better understanding of the general characteristics of the overall population with which the survey is concerned.

The average respondent to this survey is a 39-year-old engineer who has worked for the government for approximately 13 years. He has been a member of his organization for just about 10 years, has attained the level of GS-12, and earns $22,000 per year. He has a bachelor's degree and has done some work toward a post-graduate degree. The average respondent is generally satisfied with his job and its concomitant economic standard and security. He feels that the work he is performing is meaningful and that he can, to some degree, affect decisions related to his job. He is also generally satisfied with his supervision although not as satisfied with the overall leadership

of his organization.

The average respondent has never been a member of a union. However, he has friends who have been or are members, and they, along with other external factors, exert some influence upon his opinions of unions and union activities. He believes that union membership would not increase his professional status and that strikes are not a legitimate means of dealing with the problems he sees in government employment. He holds the opinion that unions are able to secure benefits which otherwise would not be obtained. However, even though he believes unions can be effective in dealing with management in behalf of individuals and groups, he tends to distrust union methods, motives, and leaders. This lack of trust is displayed by the fact that he would not join either a union or an association which would represent professionals in bargaining with management.

Although this presentation of the status and views of the average survey respondent is not indicative of any one individual respondent, it will give the reader a general feel for the attitudes and attributes of the population surveyed.

FASTABS. The FASTABS portion of SPSS, as discussed in Chapter 3, is used in this analysis to discover the relationships which exist between the selected demographic variables and the attitudes held by the scientists and engineers in the survey group. The following pages will present the results of the FASTABS analysis. In order to focus upon the attitudes of individuals in the group, the discussion will center around the attitude questions contained in the survey. Each question will be presented with its various responses as they appeared in the survey instrument. Following the question will be a list of the demographic factors which display a statistical significance and beside them the measured significance level.

The reader must understand that the mere existence of a certain statistical significance level associating two variables does not necessarily allow one to infer a causal relationship between the variables being investigated. Therefore, following each listing of significant variables is a short discussion setting forth those variables which display some intuitively reasonable explanation of why some dependency appears to exist between the variables. Those variables which bear some intuitive relationship are indicated by an asterisk. No attempt is made to explain why certain attitudes prevail or change with differences in demographics. Those attitudes which are held by all members of the group in common or those which show random variations with respect to the demographic are not included.

At the end of this section the reader will find several charts. These will present a graphic representation of all variables which were found to have statistical significance. The first chart contains data on pairs of variables significant at the .01 and .05 levels based upon the current survey. Following that, the reader will find charts comparing the data obtained during this survey effort and the data collected by Gilpin and Haas. The Gilpin and Haas format has been used on the comparison charts since it is somewhat more restrictive in numbers, and only those variables which were tested on both surveys are included.

QUESTION 40: I believe that government employees' unions:

A. Significantly improve relations between management and the employees.
B. Somewhat improve relations between management and the employees.
C. Have little or no impact on relations between management and the employees.
D. Have a negative impact on relations between management and the employees.
E. Seriously impair relations between management and the employees.

Variables with significant dependency:	Significance level:
01 Time in organization	.012
*11 Preparation for responsibility	.009
17 Feelings toward job	.006
24 Leadership-supervision	.000
30 Years employed with the government	.019
*34 Past member of union	.000
*35 Friends belong to union	.000
36 Parents belong to union	.003

Although each of these variables displays a statistical significance, only the experience of the individual respondent or his friends with unions and how the respondent feels about his preparation for further responsibility bear on intuitive relationship to how he feels unions will affect employee-management relations. The more strongly an individual feels that he is being prepared for future responsibility, the more likely he is to feel that a government employees' union would seriously impair relations between management and employees. If an individual's perception of his past exposure to unions is positive then he is somewhat more likely to feel that management/employee relations will be improved, but if his perception of his experience is negative he is most likely to believe that relations would be significantly impaired.

QUESTION 41: Unions obtain more benefits for employees than would be obtained without them.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

Variables with significant dependency:		Significance level:
*02	Time as scientist or engineer	.030
04	Age	.009
06	Year of last degree	.043
14	Economic standard	.050
16	Free time	.020
*17	Feelings toward job	.034
22	Leadership-supervision	.042
24	Get together with supervisor	.023
28	GS grade	.024
*34	Past member of union	.000
*35	Friends belong to union	.000
*36	Parents belong to union	.003

How long a respondent has been a scientist or engineer, how he feels about his job, and his experience with unions are the variables which bear the most meaningful relationship to whether or not he feels unions would be able to gain more benefits for employees. If the individual has been in his job a long time he is likely to disagree a little more strongly. Those who dislike their jobs tend to agree strongly that the benefits obtained would be more significant, but the better one feels about his job the more likely he is to express some disagreement. Those individuals who have previous experience with unions and whose experiences were positive are likely to agree strongly with the statement of this question, while those who view their experience negatively are likely to disagree.

QUESTION 42: Membership in a union increases a person's professional status.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

Variables with significant dependency:	Significance level:
02 Time as scientist or engineer	.009
04 Age	.048
11 Preparation for responsibility	.007
13 Income	.002
14 Economic standard	.002
15 Economic security	.004
17 Time satisfied with job	.027
23 Work aspects of life	.001
24 Leadership-supervision	.026
28 GS grade	.026
31 Personal standing	.008
32 Years in Dayton	.003
*34 Past member of union	.005
38 Employees covered by union contract	.001

Only one of the above variables, whether a respondent has ever been a union member, appears to bear a reasonable relationship to how strongly he feels about the ability of a union to increase his professional status. However, that experience only appears to affect how strongly the individual disagrees. Even though an individual's experience was positive, it is very likely that he will disagree with the statement of the question, but if his experience was negative, there virtually is no chance he will agree.

QUESTION 43: If white collar and professional employees were represented by federal employee unions, organizational effectiveness would be:

A. Significantly improved
B. Improved
C. Unaffected
D. Decreased
E. Significantly decreased

Variables with significant dependency:		Significance level:
*11	Preparation for responsibility	.000
12	Personal growth	.031
*17	Feelings toward job	.014
*21	Supervisor feedback	.002
* 23	Work aspects of life	.004
* 24	Leadership-supervision	.000
31	Personal standing	.020
*34	Past member of union	.000
* 35	Friends belong to union	.001
* 36	Parents belong to union	.000

With regard to organizational effectiveness, only those feelings with regard to personal growth and personal standing did not show a striking relationship to the strength or direction of the respondents' feelings. There are essentially no variables which indicate the individuals believe that organizational effectiveness will increase. The more an individual is satisfied with his leadership-supervision, the feedback he gets from his supervisor, the work aspects of his life, his feelings toward his job, and his feelings that he is being prepared for future responsibility the more likely he is to feel that organizational effectiveness will be significantly decreased. Those individuals who viewed their past experience with unions positively were about evenly split between feeling that effectiveness would improve or deteriorate, but those who thought the union was a negative factor were much more likely to feel effectiveness would significantly decrease.

QUESTION 44: Government employees, or their elected representatives (such as local federal employee union officials) should be consulted by management on matters concerning personnel policies and working conditions.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

Variables with significant dependency:	Significance level:
13 Income	.031
22 Get together with supervision	.044
29 Work area	.037
32 Personal standing	.001
34 Past member of union	.018

Although all the above variables bear a statistical significance, none of them bear an intuitive relationship to answers received to Question 44.

QUESTION 45: Union representation insures that employees are treated with dignity as individuals.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with significant dependency:		Significance level:
02	Time as scientist or engineer	.003
14	Economic standard	.036
*15	Economic security	.028
* 24	Leadership-supervision	.004
32	Years in Dayton	.002
*34	Past member of union	.023
36	Parents belong to union	.042
37	Federal right to strike	.012
38	Employees covered by union contract	.009

A change in a respondent's feelings concerning whether a union aids in insuring individual dignity is only indicated by that person's opinions of his economic security and the leadership and supervision under which he works, and it appears to be affected by whether he was at one time a union member. Although there was general agreement with the statement of the question, those who were more satisfied with these factors were much more likely to strongly disagree. In addition, past members of unions who feel that unions were advantageous are likely to disagree, and those who think the union was disadvantageous were by far more likely to disagree.

QUESTION 46: The presence of federal employee union representing white collar and professional workers would have what kind of an impact on employee-management relations?

A. Relations would be extremely antagonistic.
B. Relations would be somewhat antagonistic.
C. There would be no change in employee-management relations.
D. Relations would be somewhat improved.
E. Relations would be significantly improved.

Variables with significant dependency:		Significance level:
01	Time in organization	.020
04	Age	.034
08	Number of conferences attended	.002
*11	Preparation for responsibility	.000
12	Personal growth	.001
17	Feelings toward job	.000
20	Compare to others in job	.012
*21	Supervisor feedback	.000
*24	Leadership-supervision	.000
*27	Time in position	.010
*30	Years employed in government	.044
31	Personal standing	.017

As in Question 40, this question tests the respondent's feelings toward a union's impact upon employee-management relations, but it is aimed more specifically at the professional employee rather than general government employment. In that regard, several factors appear to have a meaningful impact on the respondents' feelings. Although none of the variables indicate that individuals feel relations would significantly improve, those who are more satisfied with their economic security their supervision and supervisor feedback, and the feeling that they are being prepared for greater responsibiltiy are likely to feel that relations would be extremely antagonistic. Those who have spent more time in their position and longer in government

employment are likely to feel less strongly about the antagonistic impact of the union. Those whose experience with unions was positive were likely to think relations would be somewhat antagonistic, but those having negative experiences were very likely to think relations would be extremely antagonistic.

QUESTION 47: The promotion is fair.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with significant dependency:		Significance level:
01	Time in organization	.009
*02	Time as scientist or engineer	.000
08	Number of conferences attended	.028
09	Number of papers written	.005
*11	Preparation for responsibility	.000
*12	Personal growth	.000
*13	Income	.000
*14	Economic standard	.000
*15	Economic security	.000
*17	Feelings toward job	.000
*18	Time satisfied with job	.000
*19	Feelings about change in job	.000
*20	Compare to others in job	.007
*21	Supervisor feedback	.000
*22	Get together with supervisor	.000
*23	Work aspects of life	.000
*24	Leadership-supervision	.000
*25	Freedom to do job well	.000
26	Position	.016
27	Time in position	.012
28	GS grade	.000
30	Years employed with government	.004
31	Personal standing	.000
35	Friends belong to union	.030
38	Employees covered by union contract	.046
39	Right to know membership	.024

All the above variables bear a statistical significance, and most of them also bear an intuitively reasonable relationship to the depth and direction of a respondent's feelings concerning the promotion system. However, there are some areas which

stand out in this respect. Those who are satisfied with their personal standing and growth potential, economics, job and work life, and supervision are less likely to believe that the promotion system is unfair. Those who had contacts who felt that unions had been advantageous to them were more likely to feel that the promotion system was fair.

QUESTION 48: Over the past few years working conditions have:

A. Deteriorated significantly
B. Deteriorated somewhat
C. Pretty much remained the same
D. Improved somewhat
E. Improved significantly

Variables with significant dependency:		Significance level:
*01	Time in organization	.007
02	Time as scientist or engineer	.001
04	Age	.000
05	Education	.011
06	Year of last degree	.004
08	Number of conferences attended	.010
09	Number of papers	.002
10	Number of patents	.002
11	Preparation for responsibility	.000
*12	Personal growth	.000
13	Income	.000
*14	Economic standard	.002
*15	Economic security	.000
* 17	Feelings toward job	.000
* 18	Time satisfied with job	.000
19	Feelings toward change in job	.000
*20	Compare to others in job	.000
* 21	Supervisor feedback	.007
* 23	Work aspects of life	.000
* 24	Leadership-supervision	.000
* 25	Freedom to do job well	.000
26	Position	.001
28	GS grade	.033
29	Work area	.034
*30	Years employed with government	.005
*31	Personal standing	.000
38	Employees covered by union contract	.030

This question, like Question 47, has many variables which are statistically significant, and some of those are standouts as intuitively showing a relationship to a respondent's feelings. If an individual is more satisfied with his personal

standing and potential for growth, economics, his job and work life, and their supervision are less likely to feel that working conditions have deteriorated. In addition, as longevity increases the individual is a little more likely to feel that conditions have deteriorated somewhat.

QUESTION 49: In my organizational unit I have the opportunity to influence major decisions.

A. To a considerable degree
B. To some degree
C. Somewhat
D. I don't have much influence
E. I have no influence whatsoever

Variables with significant dependency:		Significance level:
02	Time as scientist or engineer	.001
03	Time as manager	.000
05	Education	.025
06	Year of last degree	.007
08	Number of conferences attended	.000
09	Number of papers	.018
*11	Preparation for responsibility	.000
*12	Personal growth	.000
*13	Income	.000
*14	Economic standard	.000
*15	Economic security	.000
*17	Feelings toward job	.000
*18	Time satisfied with job	.000
*19	Feelings toward change in job	.000
*20	Compare to others in job	.000
*21	Supervisor feedback	.000
*23	Work aspects of life	.000
*24	Leadership-supervision	.000
*25	Freedom to do job well	.000
26	Position	.000
*28	GS grade	.000
29	Work area	.020
*31	Personal standing	.000
38	Employees covered by union contract	.025

Question 49 also has many variables which are reasonably appealing as an explanation of why certain attitudes concerning the individual's ability to influence decision-making are held or may vary. The more positively an individual feels about his personal standing, economic situation, job and work life, professional

development, and supervision the more he thinks he can influence major decisions. Conversely, the more negatively he feels about the variables, the less he feels he can affect those decisions. In addition, as GS rating increases, an individual is likely to believe he has a greater ability to influence the decision process.

QUESTION 50: Compared to individuals with similar education and training working in industry, my salary is:

A. Considerably higher
B. Somewhat higher
C. About the same
D. Somewhat lower
E. Considerably lower

Variables with significant dependency:	Significance level:
01 Time in organization	.000
*02 Time as scientist or engineer	.000
04 Age	.000
06 Year of last degree	.000
07 Time since professional course	.006
11 Preparation for responsibility	.016
*13 Income	.000
*14 Economic standard	.000
*15 Economic security	.000
16 Free time	.003
*27 Time in position	.000
*28 GS grade	.000
30 Years employed by the government	.000
*31 Personal standing	.001
32 Years in Dayton	.002

There are several factors which appear to affect how an individual scientist or engineer feels about his salary compared to those received by his contemporaries in the private sector of the economy. As an individual's income, time in his position, GS rating, and satisfaction with his personal standing and economic situation increases, his opinion of his salary relative to those working in industry becomes more favorable.

QUESTION 51: Strikes can be a legitimate means of collective action and should be permitted for government employees in non-critical jobs.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

Variables with significant dependency:	Significance level:
04 Age	.031
05 Education	.009
06 Year of last degree	.037
*12 Personal growth	.034
13 Income	.035
14 Economic standard	.002
*15 Economic security	.027
17 Feelings toward job	.008
18 Time satisfied with job	.012
*23 Work aspects of life	.001
*24 Leadership-supervision	.003
26 Position	.007
30 Years employed with government	.009
*31 Personal standing	.011
*35 Friends belong to union	.000
* 36 Parents belong to union	.047
37 Federal right to strike	.000
39 Right to know membership	.032

Several variables appear to bear a direct relationship to how a respondent feels about the legitimacy of strikes in the public sector. Although none of the responses indicated overall agreement with legitimacy of strikes as a means of collective action, the less satisfied an individual is with his personal growth, economic security, leadership-supervision, and the work aspects of his life the less likely he is to express strong disagreement with that legitimacy. In addition, those who have been exposed to parents and friends who believe that unions were advantageous were less

likely than those who believed they were disadvantageous to strongly disagree with the legitimacy of strikes.

QUESTION 52: The promotion system is effective (i.e., the right/most qualified person is generally promoted).

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with significant dependency:		Significance level:
01	Time in organization	.009
09	Number of papers	.037
11	Preparation for responsibility	.000
*12	Personal growth	.000
13	Income	.000
*14	Economic standard	.000
*15	Economic security	.000
*17	Feelings toward job	.000
*18	Time satisfied with job	.000
*19	Feelings toward change in job	.000
*20	Compare to others in job	.003
*21	Supervisor feedback	.000
*22	Get together with supervisor	.002
*23	Work aspects of life	.000
*24	Leadership-supervision	.000
25	Freedom to do job well	.001
26	Position	.002
28	GS grade	.000
30	Years employed with government	.014
*31	Personal standing	.000
38	Employees covered by union contract	.001

Several meaningful relationships exist with regard to how an individual feels about the effectiveness of the promotion system. There is a general opinion that the promotion system is not effective. The more satisfied an individual is with his job, his supervision, his economic situation, and his personal standing and potential for growth the less likely that individual is to feel strongly that the promotion system is not effective.

QUESTION 53: My formal supervisor treats all employees fairly.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with significant dependency:		Significance level:
04	Age	.014
08	Number of conferences attended	.025
*11	Preparation for responsibility	.000
*12	Personal growth	.000
*14	Economic standard	.002
*15	Economic security	.038
16	Free time	.020
*17	Feelings toward job	.000
18	Time satisfied with job	.000
*19	Feelings toward change in job	.000
20	Compare to others in job	.000
*21	Supervisor feedback	.000
*22	Get together with supervisor	.000
*23	Work aspects of life	.000
*24	Leadership-supervision	.000
*25	Freedom to do job well	.000
26	Position	.001
*31	Personal standing	.000
36	Parents belong to union	.046

Several major categories of variables concerning supervisor treatment of employees bear a striking relationship. The responses indicate that scientists and engineers generally feel that their supervisors treat all employees fairly. However, that perception is enhanced by greater satisfaction with personal standing and potential for growth, economic situation, satisfaction with job and work life, and supervision.

QUESTION 54: I am given credit for work I have done.

A. Never
B. Infrequently
C. Sometimes
D. Most of the time
E. All of the time

Variables with significant dependency:		Significance level:
09	Number of papers	.013
*11	*Preparation for responsibility*	.000
*12	Personal growth	.000
13	Income	.016
*14	Economic standard	.003
*15	Economic security	.038
*17	Feelings toward job	.000
*18	Time satisfied with job	.000
19	Feelings toward change in job	.000
*20	Compare to others in job	.000
*21	Supervisor feedback	.000
*22	Get together with supervisor	.000
*23	*Work aspects of life*	.000
*24	Leadership-supervision	.000
*25	Freedom to do job well	.000
27	Time in position	.027
*31	Personal standing	.000
36	Parents belong to union	.046
37	Federal right to strike	.019

As in Question 53, many of the same variables appear to affect an individual's impression of whether or not he is given credit for his work. There appears to be general agreement that the respondents are given credit for their work. However, that feeling is stronger with greater satisfaction with personal standing and growth potential, economic situation, job and work life, and supervision.

QUESTION 55: Overall the management of my organization is competent and effective.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

Variables with significant dependency:		Significance level:
01	Time in organization	.041
07	Time since professional course	.011
09	Number of papers	.016
*11	Preparation for responsibility	.000
*12	Personal growth	.000
*14	Economic standard	.000
*15	Economic security	.001
*17	Feelings toward job	.000
*18	Time satisfied with job	.000
*19	Feelings toward change in job	.000
*20	Compare to others in job	.000
*21	Supervisor feedback	.000
*22	Get together with supervisor	.000
*23	Work aspects of life	.000
*24	Leadership-supervision	.000
*25	Freedom to do job well	.000
26	Position	.025
*31	Personal standing	.000

Of the above listed variables displaying a statistical significance, whether an individual is a scientist, engineer, or manager, how long he has been in the organization, and his professional development do not appear to have any direct bearing on how opinions of the competence and effectiveness of the organization vary. However, the individual is more likely to believe that the organizational management is competent and effective the more satisfied he is with his personal standing and professional growth, economic situation, job and work life, and

supervision. The more dissatisfied he is with these factors, the more likely he is to think management is not competent and effective.

QUESTION 56: *Union representation at my organization would help prevent a major reduction in force.*

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with significant dependency:		Significance level:
15	Economic security	.007
22	Get together with supervisor	.037
23	Work aspects of life	.041
*24	Leadership-supervision	.002
*31	Personal standing	.011
37	Federal right to strike	.016
38	Employees covered by union contract	.000
39	Right to know membership	.004

The only variables which seem to bear a relationship to attitudes about the effectiveness of a union in maintaining member employment are leadership-supervision and personal standing. The general feeling is that the union would not prevent a RIF, but there is a trend which suggests that the more satisfied an individual is with his supervision and personal standing, the more likely he is to disagree with the statement of the question.

QUESTION 57: Unions have been successful in aiding other professional employees.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with significant dependency:	Significance level:
09 Number of papers	.030
23 Work aspects of life	.003
24 Leadership-supervision	.027
31 Personal standing	.007
*34 Past member of union	.000
*35 Friends belong to union	.000
*36 Parents belong to union	.028
37 Federal right to strike	.031

The experiences of the respondent, his parents, and his friends with unions appear to be the variables which have the most direct impact upon an individual's perceptions about the success of unions in helping professional employees. If their exposure is viewed negatively, then the respondent's opinions are likely to be in disagreement, and if their exposure is thought to have been advantageous, the respondent is likely to agree.

QUESTION 58: Professional employees would benefit from larger salary increases if they were represented by a union.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

Variables with significant dependency:		Significance level:
06	Year of last degree	.019
08	Number of conferences attended	.020
13	Income	.003
*14	Economic standard	.000
*15	Economic security	.045
19	Feelings toward change in job	.033
23	Work aspects of life	.007
*24	Leadership-supervision	.014
31	Personal standing	.000
*35	Friends belong to union	.026
39	Right to know membership	.042

Economic standard and security are the most obvious variables which effect how an individual views the ability of a union to increase salaries of professional employees. But these views also appear to be influenced by his friends who may have had experience with unions and his leadership-supervision. Although there is an overall belief that professional employees would not benefit by larger salary increases, the more satisfied an individual respondent is with his current economic standard and security, the more likely he is to feel that way. Those who are more satisfied with their leadership-supervision are more likely to feel negatively as well. In addition, those who have friends who view their experience with unions as disadvantageous are very likely to disagree, and even those whose friends who believe their exposure was advantageous are somewhat more likely to disagree.

QUESTION 59: The benefits, economic and otherwise, obtained from belonging to a union more than compensate for the monthly dues (approximately $5 per month).

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with significant dependency:	Significance level:
11 Preparation for responsibility	.039
23 Work aspects of life	.040
24 Leadership-supervision	.033
*34 Past member of union	.000
*35 Friends belong to union	.000
*36 Parents belong to union	.000

The attitudes of the respondents with regard to dues versus benefits appear to be most closely associated with the opinions of their friends and relatives who were past members of unions and their own opinion if they have been a union member. If previous experience is viewed positively the respondent is likely to agree that dues are compensated for by benefits received. But if those experiences are viewed negatively, they are much more likely to disagree.

QUESTION 60: Union leaders generally act in the best interests of union members.

A. Strongly disagree
B. Disagree
C. Inclined to disagree
D. Undecided
E. Inclined to agree
F. Agree
G. Strongly agree

Variables with significant dependency:		Significance level:
01	Time in organization	.000
05	Educational level	.021
12	Personal growth	.022
14	Economic standard	.024
*21	Supervisor feedback	.023
22	Get together with supervisor	.042
29	Work area	.039
30	Years employed with government	.036
*34	Past member of union	.000
*35	Friends belong to union	.000
*36	Parents belong to union	.000
37	Federal right to strike	.016
38	Employees covered by union contract	.031
39	Right to know membership	.047

Whether or not the respondents feel union leaders act in the best interests of members seems to be affected by two basic variables. The first is the amount of useable feedback they receive from their supervisor. And the second is the impressions they have formed from their own experiences or the experiences of their parents and friends. If an individual gets a great deal of supervisor feedback he is more likely to believe that union leaders do not act in the best interests of the members. In addition, if the experiences of the respondent and his friends and relatives are seen as advantageous, he is slightly more likely to disagree than agree with the statement of the question. If the experiences are viewed as disadvantageous, the respondents are significantly more likely to disagree.

QUESTION 61: It has been said that unions have tended to emphasize seniority as the most important consideration for advancement; such a practice would have the following effect on my organization:

A. It would greatly improve morale
B. It would cause some improvement in morale
C. It would have no impact on morale
D. It would have a negative impact on morale
E. It would have a disasterous impact on morale

Variables with significant dependency:	Significance level:
01 Time in organization	.001
02 Time as scientist or engineer	.001
04 Age	.000
05 Education	.023
06 Year of last degree	.000
08 Number of conferences attended	.014
11 Preparation for responsibility	.000
12 Personal growth	.018
13 Income	.022
20 Compare to others in job	.011
21 Supervisor feedback	.034
23 Work aspects of life	.033
25 Freedom to do job well	.031
27 GS grade	.000
30 Years employed with government	.000
31 Personal standing	.000
32 Years in Dayton	.011
35 Friends belong to union	.005
36 Parents belong to union	.014
39 Right to know membership	.006

There are only two basic factors which seem to influence how a respondent feels about seniority advancement. The first and most obvious is longevity including the year of his last degree, his GS grade, and the number of years he has been employed by the government. Although the overall belief is that unions would impair morale, the greater the longevity the less likely the respondent is to think that morale will

be impaired. The second factor is his personal standing and potential and preparation for personal and professional growth. The more satisfied the respondent is with this basic factor, the more likely he is to believe that morale will be impaired.

QUESTION 62: If a union were elected by members of my organization to represent and bargain for professional employees, I would join.

A. I strongly disagree
B. I disagree
C. No opinion
D. I agree
E. I strongly agree

Variables with significant dependency:		Significance level:
08	Number of conferences attended	.012
*11	Preparation for responsibility	.000
14	Economic standard	.001
17	Feelings toward job	.000
20	Compare to others in job	.035
*23	Work aspects in life	.002
*24	Leadership-supervision	.000
*25	Freedom to do job well	.050
27	Time in position	.048
*31	Personal standing	.001
*34	Past member of union	.000
*35	Friends belong to union	.000
*36	Parents belong to union	.000

There appear to be several factors which are significant in indicating how an individual's attitude concerning joining a union might vary. The more satisfied the respondent is with his personal standing and preparation for future responsibility, his supervision, and the work aspects of his life, the less likely he is to join a union. In addition, if the respondent, his parents, or his friends had previous experience with unions and that experience was believed to have been disadvantageous, he is much less likely to think he would join than if he either did or did not have previous exposure or experience.

QUESTION 63: Once unions enter an organization, they tend to gain an excessive amount of power.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with significant dependency:		Significance level:
11	Preparation for responsibility	.004
12	Personal growth	.001
17	Feelings toward job	.027
31	Personal standing	.010
34	Past member of union	.000
*35	Friends belong to union	.000
*36	Parents belong to union	.001
37	Federal right to strike	.013
38	Employees covered by union contract	.014
39	Right to know membership	.016

Of the variables which show a statistical significance in determining the attitudes an individual holds about the power exercised by unions, the influence of opinions held by parents and friends appear to be the ones with the most reasonable impact. Although the general belief is that unions gain excessive power, if the experiences of parents and friends are thought to have been disadvantageous, the respondent is much more likely to believe that is the case.

QUESTION 64: A union can solve problems which an individual, on his own, would be unable to solve.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

Variables with significant dependency:		Significance level:
04	Age	.029
05	Education	.000
06	Year of last degree	.003
*12	Personal growth	.002
*13	Income	.002
*17	Feelings toward job	.024
18	Time satisfied with job	.004
*22	Get together with supervisor	.006
23	Work aspects of life	.019
*24	Leadership-supervision	.002
25	Freedom to do job well	.039
27	Time in position	.046
*28	GS grade	.005
29	Work area	.049
*33	Present member of union	.027
*34	Past member of union	.000
*35	Friends belong to union	.000

Of the factors above, one basic one stands out as having the most effect upon an individual's perception of the ability of a union to solve individual problems. That is, if his parents and friends were members of unions, and they viewed their membership as advantageous, the respondent is much more likely to believe that a union can be effective in solving individual problems. Several other factors appear to be of value in interpreting the reaction of the respondent, but they do not follow a clear-cut pattern.

QUESTION 65: If a union were recognized as the sole bargaining agent for my my organization, its members would attempt to force other employees to join against their will.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with significant dependency:	Significance level:
20 Compare to others in job	.041
30 Years employed with government	.032
*34 Past member of union	.008
*35 Friends belong to union	.000

Of the few variables which have a statistical significance in determining an individual's response to this question, only the respondent's own experience or the experiences of his friends possess intuitive appeal in explaining the responses. If these experiences are thought of as having been disadvantageous the respondent was much more likely to feel that unions would attempt to force others to join once they were recognized.

QUESTION 66: In the public sector, union lobbying efforts are more effective than bargaining directly with management.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

Variables with significant dependency:	Significance level:
01 Time in organization	.041
02 Time as scientist or engineer	.041
26 Position	.021
30 Years employed with government	.006
37 Federal right to strike	.045

Although these variables display a statistical significance there is little intuitive arguement to support the idea that differences in the variables reflect in differing responses to Question 66.

Adequate safeguards exist for the individual employed by the Government; there is no need for federal employee unions: (Refer this to Questions 67 and 68 only.)

QUESTION 67: To represent government employee interests in Congress through lobbying.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with significant dependency:		Significance level:
01	Time in organization	.006
02	Time as scientist or engineer	.000
04	Age	.008
11	Preparation for responsibility	.018
*12	Personal growth	.000
13	Income	.005
14	Economic standard	.049
*16	Free time	.001
22	Get together with supervisor	.039
*24	Leadership-supervision	.000
28	GS grade	.037
30	Years employed with government	.005
*31	Personal standing	.013
*34	Past member of union	.000
*35	Friends belong to union	.000
36	Parents belong to union	.000
37	Federal right to strike	.000
38	Employees covered by union contract	.001
39	Right to know membership	.019

The more satisfied a scientist or engineer is with his potential for personal growth, his free time, his supervision, and his personal standing, the less likely he is to feel the need for a union. In addition, the experiences of the individual and his friends appears to have some impact upon his opinions. If those experiences are viewed as

having been advantageous, he is likely to think there is a need for union representation, while if his experiences are viewed as negative, he is more likely to believe that a union is unnecessary.

Adequate safeguards exist for the individual employed by the Government; there is no need for federal employee unions: (Refer this to Questions 67 and 68 only.)

QUESTION 68: To help resolve disputes and look after employee interests through direct negotiation with the Air Force.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with significant dependency:		Significance level:
*11	Preparation for responsibility	.000
*12	Personal growth	.001
*16	Free time	.000
17	Feelings toward job	.004
*18	Time satisfied with job	.032
22	Get together with supervisor	.036
*23	Work aspects of life	.002
24	Leadership-supervision	.001
25	Freedom to do job well	.023
*34	Past member of union	.000
35	Friends belong to union	.000
36	Parents belong to union	.001
38	Employees covered by union contract	.000

If a scientist or engineer is satisfied with his potential for personal growth, free time, job and work aspects of his life, and his preparation for future responsibility, he is less likely to believe a union is needed to resolve disputes and look after employee interests. In addition, if he is a past member of a union and thinks the union membership was disadvantageous he is likely to feel the same. However, if his union membership is thought of as disadvantageous, he is more likely to think the union is unnecessary.

QUESTION 69: If an organization of federally employed professionals (engineers and/or scientists) was formed to represent the interests of this group (i.e., lobbying for pay increases, presenting grievances, etc.), I would join.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

Variables with a significant dependency:		Significance level:
*12	Personal growth	.021
*14	Economic standard	.000
*15	Economic security	.001
17	Feelings toward job	.014
18	Time satisfied with job	.035
*20	Compare to others in job	.014
*23	Work aspects of life	.008
*24	Leadership-supervision	.004
*31	Personal standing	,001
33	Present member of union	.040
*34	Past member of union	.000
*35	Friends belong to union	.000
*36	Parents belong to union	.000
39	Right to know membership	.033

If an individual is satisfied with his economic situation, his personal standing and potential for growth, how he compares to others in his job, the work aspects of his life, and his supervision, he is less likely to want to join an employee association. In addition, the experiences of the respondent and his friends and relatives appear to relate to his desire to join an association. If that past union membership is viewed as having been advantageous, there is a slight indication that the respondent might be more likely to join. On the other hand, if the membership was viewed as disadvantageous, the individual is very unlikely to express any intention of joining.

DEMOGRAPHIC QUESTIONS	ATTITUDE QUESTIONS																														
	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69
1. Time in Organization	0						0	X	X		X		X			0					X	X					0	X		
2. Time as Sci/Eng		0	X			X		X	X	X	X											X					0	X		
3. Time as Mgr										X																				
4. Age		X	0				0		X		X	0		0								X			0			X		
5. Educational Level									0	0		X									0	0			X					
6. Year of Last Degree		0							X	X	X	X							0			X			0					
7. Last Prof Dev Crse											X					X														
8. Conferences Last Yr							X	0	0	X				0					0			0	0							
9. Number of Papers								X	X	0			0		0	0		0												
10. Number of Patents									X																					
11. Responsibility Prep	X		X	X			X	X	X	X	0		X	X	X	X				0		X	X	X				0	X	
12. Personal Growth				0			X	X	X	X		0	X	X	X	X					0	0		X	X			X	X	0
13. Income			X		0			X	X	X	X	0	X		0				X			0			X			X		
14. Economic Standard		0	X			0		X	X	X	X	X	X	X	X	X			X		0		X					0		X
15. Economic Security			X			0	X	X	X	X	X	0	X	0	0	X	X		0											X
16. Free Time		0									X			0														X	X	
17. Feel Toward Job	X	0	0	0			X	X	X	X		X	X	X	X	X							X	0	0				X	0
18. Time Sat with Job								X	X	X		0	X	X	X	X									X				0	0
19. Want Job Change								X	X	X			X	X	X	X			0											
20. Comp to Oth in Job							0	X	X	X			X	X	X	X						0	0			0				0

Figure 2 FASTABS Chi-square Analysis

Note: X=.01 Significance Level
O=.05 Significance Level

DEMOGRAPHIC QUESTIONS	ATTITUDE QUESTIONS																														
	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69
21. Supervisor Feedback				X			X	X	X	X			X	X	X	X					0	0								
22. Meet with Supervisor		0			0			X					X	X	X	X	0				0				X			0	0	
23. Work Aspects of Life			X	X				X	X	X		X	X	X	X	X	0	X	X	0		0	X		0				X	X
24. Ldrship-Supervision	X	0	0	X		X	X	X	X	X		X	X	X	X	X	X	0	0	0			X		X			X	X	X
25. Freedom to do Job								X	X	X			X	X	X	X						0	0		0				0	
26. Position								0	X	X		X	X	X		0											0				
27. Time in Position							X	0			X				0							X	0		0					
28. GS Grade		0	0					X	0	X	X		X												X			0		
29. Type Work					0				0	0											0				0					
30. Yrs Govt Employment	0						0	X	X		X	X	0								0	X				0	X	X		
31. Personal Standing			X	0			0	X	X	X	X	0	X	X	X	X	0	X	X			X	X	X				0		X
32. Yrs in Dayton			X		0	X					X											0								
33. Present Union Member																									0					0
34. Past Union Member	X	X	X	X	X	0	X											X		X	X		X	X	X	X		X	X	X
35. Friends Union Member	X	X		X			0	0				X						X	0	X	X	X	X	X	X	X		X	X	X
36. Parents Union Member	X	X		X		0	X					0		0	0			0		X	X	0	X	X				X	X	X
37. Fed Right to Strike						0						X			0		0	0			0			0			0	X		
38. Union Contract Cover			X			X		0	0	0			X				X				0			0			X	X		
39. Rt to Know Members								0				0					X		0		0	X		0			0			0

Figure 2 FASTABS Chi-square Analysis (Continued)

Note: X=.01 Significance Level

O=.05 Significance Level

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THE ATTITUDES OF FEDERALLY EMPLOYED SCIENTISTS AND ENGINEERS: A--ETC(U)
DEC 76 R H AGNEW, R O JENNINGS

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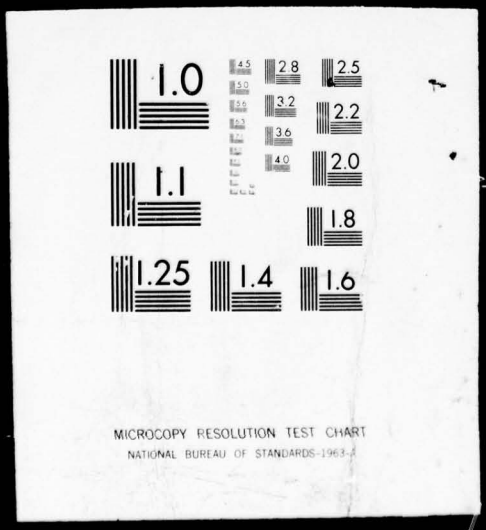

DEMOGRAPHIC QUESTIONS	ATTITUDE QUESTIONS																												
	40 (1)	41 (2)	42 (3)	43 (4)	44 (5)	45 (6)	46 (7)	47 (8)	48 (9)	49 (10)	50 (11)	51 (12)	52 (13)	53 (14)	54 (15)	55 (16)	56 (17)	57 (18)	58 (19)	59 (20)	60 (21)	61 (22)	62 (23)	63 (24)	64 (25)	65 (26)	66 (27)	67 (28)	68 (28a)
1. Time in Organization	A			G			&	&	&	G	&		&		G	A					A	A					A	&	G
2. Time as Sci/Eng			A	G		A		&	&	&	&	G	G				G					A			G		A	&	
3. Time as Mgr										A																			
4. Age		A	A	G			A	G	&		&	&		&			G					&			A			&	
5. Educational Level				G					&	A		A									A	A			A				
6. Year of Last Degree		A			G		G	G	A	&	&	&			G		G		A		G	&			A			G	
7. Last Prof Dev Crse											A					A										G			
8. Conferences Last Yr							A	A	A	&				A				G	A			A	A						
9. Number of Papers		G						A	A	A	G		A		A	A		A		G									
10. Number of Patents				G					&															G					
13. Income			&		A		G	&	&	&	&	&	&		A		G	G	A		G	A			A			&	G
70. Job Satisfaction							A	A	&	&			&	&	&	&	G	G					A		&				A
26. Position								A	A	&	G	A	A	A		A		G			G		G	G			A		
27. Time in Position				G			&	A	G	G	&				A							&	A		A				
28. GS Grade		A	A				G	&	&	&	&	G	&			G	G	G			G			G	A			&	
29. Type Work					A		G		A	A							G	G			A				&				
30. Yrs Govt Employment	A					G	&	&	&	G	&	&	&		G		G				&	A			G	A	A	&	
32. Yrs in Dayton			A	G	A	A		G	G		&	G	G				G				G	A			G	G	G	G	G

Figure 3 Comparison of Chi-square Analyses (.05 and .01 Significance)

Note: A indicates Jennings and Agnew

G indicates Gilpin and Haas

This discussion of the FASTABS data has been concerned with the current survey group as a single entity. There is, however, another important aspect of the survey group to be investigated. The results from the current group must now be compared to the results obtained during the previous survey effort in order to determine what, if any, trends exist in the attitudes and opinions possessed by members of the population.

T-Test Analysis Results

A T-Test is used to find significant differences in the mean average answer given for each question as described in Chapter III. The T-Test is used in comparing the data from the previous study and equivalent data derived from this study. In addition, T-Test analysis is used to compare the three major organizations involved in the study; ASD, AFWAL, and the 4950th Test Wing. The purpose of using the test between the various sets of data is to note changes that have occured over the past two years and to note current differences between the organizations.

The test was done on all questions including the combined job satisfaction score that was calculated from the data. In the comparison between the two studies only those questions that are common to both are used in the test. This section presents only the significant findings from the attitude section of the survey, Questions 40 to 69.

Of the thirty attitude questions used in both studies, 14 were found to have a significance level of .05 or lower, and of these 14, 10 were significant at the level of .01. Eight of these 10 are at the .000 level indicating a nearly zero probability that the difference in means is due to chance. Because of the large number of

significant variables in proportion to the total number of attitude questions only the ones at the .01 level are presented in the table of Figure 4. The table first lists the question. Below the question, from left to right, is the mean average answer for the Gilpin and Haas study followed by the mean average answer from the current data. The third number represents the significance level for the difference between the means, and the last number indicates the percent of the population that would have had to change their answer by a single interval in order for the means between the two studies to differ as indicated. On the far right is a short statement that indicates in which direction the shift in answers must have occurred. For example: concerning Question 40, if all the respondents in the previous study had answered C, "Unions have little or no impact," then in order to account for the same relative shift in the mean, approximately 30 percent of the respondents would have had to change their answer to D, "Unions have a negative impact."

In comparing the differences in mean responses within the attitude section of the survey between the major organizations, one must be careful in saying that one organization is more pro-union than the others or the employees of one organization have a more favorable attitude toward their organization than the employees of another. Many of these differences were at such probability levels as to be inconclusive. In Chapter V, those differences that were significant will be discussed, and conclusions will be drawn as to why those differences exist.

In addition to this statistical comparison of answers to the survey, the reader is provided a comparison the SURVAN results between the two studies in Appendix 3. This provides a graphic illustration of the actual responses to questions in the survey

and may aid in understanding the shifts in responses. The means and significance levels are provided along with the histograms of the responses to each question.

Inter-attitudinal Variable Analysis

In addition to performing a Chi-square contingency table analysis between the demographic and attitude questions, a test for dependency was done between the questions measuring attitudes toward unions and those concerned with attitudes toward the organization. In the attitude section of the survey there are 22 questions dealing with unions and 8 dealing with the organization. Figure 6 shows the results derived from this test. It is interesting to note that out of the 176 possible combinations of variables in the table there are 85 combinations showing dependency at the .01 significance level. In almost all of these 85 combinations there is an apparent correlation between the attitude one holds toward his organization and his feelings about unions.

Question Number: Statement of the Question	Previous Study Mean Answer	This Study Mean Answer	Significance Level (2-tail)	Percent of Answer Shift	Direction of Shift
40. Government employees union effect on management/employee relations.	2.9130	3.2341	0.000	32%	Seriously impair relations
41. Unions obtain more benefits for employees than would be obtained without them.	2.2969	2.5360	0.000	24%	Strongly disagree
43. If white collar and professional employees were represented by Federal employees union, organizational effectiveness would be:	3.2214	3.4955	0.000	28%	Significantly decreased
44. Government employees or their representatives should be consulted by management on matters concerning personnel policies and working conditions.	2.0899	2.2735	0.000	18%	Strongly disagree
46. Union representing white collar/professional workers would have what kind of impact on employee-management relations?	2.6660	2.4521	0.000	22%	Extremely Antagonistic

Figure 4 T-test Results

Question Number: Statement of the Question

Previous Study Mean Answer	This Study Mean Answer	Significance Level (2-tail)	Percent of Answer Shift	Direction of Shift
48. Over the past few years working conditions have:				
3.0150	2.8028	0.000	22%	Deteriorated Significantly
51. Strikes can be a legitimate means of collective action and should be permitted for government employees in non-critical jobs.				
3.4301	3.6380	0.000	23%	Never
54. I am given credit for work I have done.				
3.8135	3.6343	0.000	9%	Strongly disagree
57. Unions have been successful in aiding other professional employees.				
2.9415	2.8073	0.000	14%	Strongly disagree

Figure 4 T-test Results (continued)

Question Number: Statement of the Question

Mean Ave. Answer (Organ.)	Mean Ave. Answer (Organ.)	Significance Level (2-tail)	Percent of Answer Shift	Direction of Shift
42. Membership in a union increases one's professional status.				
3.7955 (TestWg)	4.0070 (AFWAL)	0.024	21%	Strongly Disagree
3.7955 (TestWg)	3.9863 (ASD)	0.044	19%	Strongly Disagree
49. In my organizational unit I have the opportunity to influence major decisions.				
2.6164 (ASD)	2.9164 (AFWAL)	0.000	35%	No Influence
2.6164 (ASD)	3.1250 (TestWg)	0.001	50%	No Influence
50. Compared to individuals with similar education and training working in industry, my salary is:				
2.9094	3.1000	0.009	19%	Considerably lower

Figure 5 Inter-organizational T-test

Question Number: Statement of the Question

Mean Ave. Answer (Organ.)	Mean Ave. Answer (Organ.)	Significance Level (2-tail)	Percent of Answer Shift	Direction of Shift
53. My formal supervisor treats all employees fairly.				
3.8253 (ASD)	3.6585 (AFWAL)	0.040	17%	Strongly Disagree
61. Unions tend to emphasize seniority as most important for advancement; this practice would have the following effect on my organization:				
3.6084 (ASD)	3.3908 (TestWg)	0.038	22%	Greatly Improve Morale

Figure 5 Inter-organizational T-test (continued)

	47. Promotion fairness	48. Working conditions	49. Oppor influ maj dec	50. Compare salaries	52. Promotion effect.	53. Sup. treat fairly	54. Credit for work	55. Mgt competent
40. Govt unions and relations		X	X	O		X	O	X
41. Govt unions and benefits	X	O			X			O
42. Increase personal status	X		X	O		O		O
43. Unions and org effect.	X	X	X		O	X	X	O
44. Union consultation			X					
45. Unions and dignity	X	O	O					X
46. Unions impact on relations	X	X	X			X	X	X
51. Strikes permitted	X	X	X	O	X	X		O
56. Prevent RIF	X	X	X	O		X	X	
57. Successfully aid others	O	X	X					O
58. Increase salaries	X		X	X	X	X		O
59. Benefits compensate	X	O	X		X	X	X	X
60. Ldrs interest in members			O			O		
61. Seniority and morale	X	X	X		X	X	X	X
62. Would join union	X	O	X	X	X	X	X	X
63. Excess power of unions	X		X			O		X
64. Union solve indiv. prob.	O		X		O			O
65. Union force membership	X					X		X
66. Lobby or bargain effective		X				O		
67. No need to rep interests	X	X	X		X	X	X	X
68. No need to resolve disp.	X	X	O		X	X	O	X
69. Join employee association	X	X	X	X	X		X	O

Figure 6 Attitude T-test Results

Note: X=.01 significance level
O=.05 significance level

V. Discussion of the Findings

The discussion of the findings from the analysis of the current survey data will be presented in four sections. The first section consists of a straightforward presentation of the authors' analysis of the current results using an attitudinal format. The second section describes results obtained from this survey on subjects not tested in the previous survey effort. The third section of this chapter deals with the objective of confirmation or refutation of the findings of the previous analysis. And, finally, the last section contains a discussion of the findings of the T-Test analysis. That section will be comprised of the trends which have occurred since the previous survey effort and an analysis intended to identify possible internal factors that may influence attitudes toward unions and the organization.

Attitude Findings

While the study conducted by Gilpin and Haas focused the discussion of findings upon the demographic factors which appeared to bear some causal relationship to the attitudes held by scientists and engineers, the current analysis focuses upon attitudinal findings. In order to present the findings in that format, the attitude questions and responses must be broken down into groups. Therefore, the respondents' answers are placed in the following classifications: the work, the individual, supervision, the system, the organization, and unions. The discussion of attitudes of the respondents toward each of these areas will be broken down into two parts where applicable. The first treatment concerns how they feel about the factor itself, and the second is how they feel unions might impact the factor.

The Work. How the respondents felt about their work may be broken down into two parts. The first, and most obvious, concerns the physical aspects of the work; that is, such things as free time, working conditions, and economics. The second portion of the breakdown of the work factor concerns internal aspects of the work such as how well satisfied employees are with their job and whether they consider their work meaningful and important to their lives.

With respect to the physical aspects of their work, the respondents appeared quite satisfied. Only 15 percent were dissatisfied with the amount, use, or scheduling of their free time. Likewise with the respondents' economic standard, only 16 percent were dissatisfied to any degree, and only 14 percent were dissatisfied with the economic security afforded by their employment. However, 32 percent felt that working conditions had deteriorated over the past few years while less than 20 percent felt working conditions were improving.

Concerning the less tangible aspects of their work, in general the respondents reflect more satisfaction than dissatisfaction with their employment. Only 23 percent of the respondents were dissatisfied with the fact that they did not perceive their work to be meaningful and important. In terms of overall satisfaction, only 9 percent did not like their jobs while 85 percent liked it half of the time or more. Although about 22 percent of the respondents indicated some preference for a change in job, only 9 percent of those displayed any desire to change their occupation. In addition, when comparing their job satisfaction with their opinion of how other individuals feel about their jobs, 93 percent reported that they thought they liked their jobs as

well as or better than anyone else. In general, then, it appears that the respondents are satisfied with both the tangible and intangible aspects of their work.

Turning now as to whether and how these attitudes toward their work might affect the respondents' attitudes toward unions, an examination of the results of Questions 58, 59, 62, 67, and 69 in Chapter IV indicate that both the tangible and intangible aspects of the work influence attitudes toward unions. This influence is significant both statistically and intuitively. It is most evidenced in the influence of economic standard and security. The respondents generally do not feel that unions can help them to obtain better economic benefits or that union dues are conpensated for by benefits. There was general disagreement among the respondents as to whether lobbying by unions was needed by government employees. Less than one quarter of the respondents would join either a union or an association formed to represent professional government employees.

The Individual. As discussed in Chapter II, individualism concerns the ability of the individual to influence his work and environment. This section concerning the individual, however, is more all-encompassing. This assessment of how the respondents view their treatment as individuals includes not only the individual's ability to influence his work and environment, but it also includes an analysis of attitudes concerning personal standing, personal growth, and growth into future responsibility.

Professionalism was also included in the discussion in Chapter III through four questions designed to measure the level of professional development. Two questions exploring how union membership might affect an individual's professional status

were also included.

Overall, the respondents seem to be satisfied with their situation and treatment, but that satisfaction could hardly be characterized as particularly enthusiastic. With regard to personal standing, most respondents are relatively well satisfied. Only 15 percent expressed dissatisfaction, but conversely, only 6 percent considered themselves highly satisfied. Satisfaction with personal growth potential reflected much the same attitude. Most were satisfied with their ability to develop their personal capacities with 6 percent being highly satisfied. However, 28 percent expressed dissatisfaction. There was little undecided opinion about whether the respondents felt they were being prepared for future responsibility. Somewhat less than one third of those responding (31%) expressed a negative opinion, a little less than two thirds (61%) were positive in their opinion, and only 8 percent were undecided. With regard to whether an individual was given the freedom to do his job well and then whether or not he received credit for his work, the responses were somewhat more positive. Very few (7%) felt that they were seldom or never given the freedom they required, and only about 14 percent said they were given credit for their work infrequently or never.

Much of the discussion in Chapter II was directed toward the relationship between individualism and the ability of the individual to influence decision-making in the organization. An interesting, and possibly expected, result was noted in the responses to Question 49 regarding whether the respondent felt the responses closely parallel the GS ratings of the respondents. Those with higher GS ratings appear to feel that they have a greater say in the decision-making process, while the younger employees feel their influence is lesser.

With regard to how the respondents felt a union might impact the individual, several things were discovered. The only things that appear to influence respondents' opinions concerning whether a union would ensure that they were treated with dignity as individuals were whether they were given credit for their work and whether they felt they could influence decisions. As mentioned previously, influence on decisions followed GS rating.

The most important determinant of respondent attitudes toward a union's influence on their treatment appears to be their past experience with unions. However, the responses to whether a union might be able to solve problems which an individual might not be able to solve on his own appeared to be of both statistical and practical significance. With regard to the measures of individualism used in this section, attitudes toward personal growth, freedom to do the job well, and influence on major decisions, display both statistical and intuitive significance.

It appears that the group of respondents *as a whole* has achieved a fairly high level of professional development. Nearly a third of the respondents have published between one and five papers, and nearly half attended one or more professional conferences last year. In addition, 58 percent of the respondents had attended a professional development course within the last year, and more than 70 percent have attended one in the last two years. When one considers that 42 percent of the respondents have less than 10 years government employment and over 60 percent have a rating of GS-12 or lower, it is easier to gain an appreciation of the degree of professional development of the group.

With regard to how a union might affect a respondent's professional status, none of the above measures of professional development display either statistical or

intuitive significance to Question 42. This may be due partly to the fact that the responses to Question 42 were so negative toward a union's ability to increase an individual's professional status. In fact, only 4 percent of the respondents expressed any arguement that a union could do that.

Supervision. In order to investigate the attitudes of scientists and engineers toward supervision, a number of questions were included in the survey. There were direct questions asking for opinions concerning the competence and effectiveness of management and opinions of leadership/supervision. There were also indirect questions concerning the amount and quality of supervisor feedback, job freedom, credit for work, and supervisor fairness.

In general, there appears to be a degree of ambivalence in the feelings of the respondents toward supervision. They seem to be for the most part satisfied with their immediate supervisors but less enthusiastic about the competence of the overall management of the organization. Forty percent feel the overall management of the organization is not competent and effective, while 32 percent indicate dissatisfaction with their supervisor. Based upon some inconsistencies in the responses, it appears that the scientists and engineers are not particularly impressed or overawed by their supervisors.

While only about 7 percent of the respondents indicated that they were seldom or never given the freedom to do their job well, and approximately 14 percent said they were infrequently given credit for their work, only 1 percent said they were given feedback about their job performance very frequently and 18 percent frequently.

At the same time, less than 1 percent responded that they met very frequently with their supervisor to set their personal performance objectives, while only 7 percent met frequently. Thus, it would appear that these scientists and engineers are independent-minded in terms of desiring feedback. In addition, only about 14 percent felt that their supervisor did not treat employees fairly. It would appear, then, that the respondents do not feel that they particularly need feedback, but the feedback they do get is generally fair.

Two questions in the survey were designed to investigate how the respondents felt a union might affect management/employee relations. In both cases there was a statistical relationship between how the respondents felt about a union's affect on those relations and four of the above-mentioned factors: the satisfaction with leadership/supervision, the individual's opinion of the competence and effectiveness of the overall management, whether the supervisor treats employees fairly, and whether the individual receives credit for his work. In addition, the frequency in which the individual gets feedback from his supervisor also displays some statistical significance. With regard to fair treatment and credit for work, however, an intuitively appealing trend is difficult to detect due to the overall satisfaction. However, whether an individual is satisfied with his leadership/supervision and whether he feels the overall management is competent and effective must be regarded as definite determinants of how the individual feels a union will affect employee/management relations. If he is satisfied and feels the management is competent, he is likely to feel strongly that a union will be very detrimental to those relations.

The System. The system referred to concerns two primary areas: personnel policies and working conditions. In this regard, the primary concern of this survey was an investigation of attitudes concerning the fairness and effectiveness of a union in dealing with personnel policies and working condtions were investigated.

When the respondents were asked their opinions of the fairness and effectiveness of the promotion system, strong feelings were expressed regardless of whether the feelings were positive or negative. Approximately 37 percent of the respondents felt the promotion system is fair, while about 46 percent felt it is not. In terms of effectiveness, 31 percent felt the system is effective while over half (55%) felt it is not effective. There are three major areas which appear to have an influence upon why an individual feels the way he does with respect to the promotion system: economics, job satisfaction, and feelings about their supervision. Those who are more satisfied with their economic standard and security, moresatisfied with their jobs, and more satisfied with their supervisors are more likely to feel the promotion system is fair and effective.

As an introduction to an analysis of how these opinions affect the attitudes of the respondents toward unions with respect to the system, it is interesting to note that a large majority of the respondents (72%) indicated that they felt either they as government employees or their representatives should be consulted by management on matters concerning personnel policies and working conditions.

Although the respondents generally believe consultation should be practiced, there is also an interesting result when one looks at how effective they believe a

union might be. Nearly half believe there are adequate safeguards in the system and that there is no need for unions to resolve disputes or look after employee interests. At the same time, there are about a third of the respondents who are of the opinion that there is a need for union involvement. Even with this large a number feeling that a union might be needed to look after their interests, only 8 percent feel a union might protect them from such seemingly arbitrary personnel policies as a reduction in force (RIF).

There appear to be several factors which may influence how the respondents view a union's possible influence and importance to the system. However, there does not appear to be a strong intuitive appeal to imply a causal relationship. This is due for the most part to the fact that the opinions concerning unions are relatively consistent whether they are positive or negative and regardless of the opinions held on the other subjects investigated. It appears that if the individual believes the promotion system is fair, he is less likely to feel that unions can be of assistance. Second, if he thinks that the promotion system is effective, he is likely to think safeguards are now adequate. In addition to the system factors mentioned, there are some additional factors which appear to affect how an individual views the possible role of a union. The strongest of these is that if he feels that working conditions have deteriorated over the past few years he is more likely to favor union involvement. If his supervisor is fair and gives credit for work accomplished, he is less likely to think kindly of unions. As was mentioned above, however, these trends are not particularly strong.

The Organization. There were no specific questions addressing the question of how the employee felt about the organization directly. However, his opinions concerning the system and supervision give an adequate indication of his feelings toward the organization. This is due to the fact that the organization is the most visible manifestation of these factors. This section is directed primarily at how the scientists and engineers feel union representation of employees might affect the organization. Question 43 concerned how employees felt a union might affect organizational effectiveness in accomplishing the assigned mission. Question 61 addressed the question of seniority and how it might affect the organization if seniority were used as the primary basis for advancement. Finally, Question 63 addressed the possible problem of a union gaining what the individual viewed as too much power in the organization.

On the whole, the opinions of the respondents regarding how a union might affect the organization's effectiveness is negative. Almost half (48%) said that effectiveness would decrease to some degree and only about 14 percent thought that effectiveness would increase. There are two things that seem to go hand in hand with this opinion. The first is that, since unions tend to emphasize seniority, this emphasis was felt by almost 60 percent of the respondents to have a negative impact on the organization's morale. Only about 12 percent felt morale would improve. In addition, only 10 percent of the respondents felt a union does not gain excessive power once it enters an organization, while over three quarters felt the opposite. Thus it would appear that the scientists and engineers surveyed are negatively disposed toward union influence upon the organization.

With regard to the ability of unions to solve problems, a large majority of the respondents, over 61 percent, believe that a union can be more effective than an individual on his own might be. However, the feeling that unions can be more effective in lobbying than bargaining directly with management is less decisive. Almost 45 percent of the respondents think that unions can be more effective, and nearly 15 percent disagree; but a large number, 40 percent, have no opinion.

The factors which appear to most affect the opinions in this area are the individual's previous experience with unions. In each of the questions mentioned above except that concerning group effectiveness there is a statistical significance indicating dependence upon the respondent's union experience. In addition, each of those variables indicating a statistical significance also displays an intuitvely obvious dependency. In fact, except for Question 64, this factor of union experience is the only factor which intuitively appears to affect the opinions of the respondents. In the case of Question 64 regarding the ability of the union to solve problems the individual might not be able to solve on his own, the opinions also appear to be affected in varying degrees by the individual's feelings regarding his personal growth, income, job satisfaction, and supervision.

Unions. Much of the discussion in this chapter has centered upon unions, so this might seem to be redundant. But the thrust of this section is directed at discovering how the respondents feel about the unions themselves. What do they think about the inner workings of the union? Included among these questions were opportunities to express opinions concerning union leadership and union power. The response to

Question 60 regarding union leadership indicated that most scientists and engineers believe union leaders do not generally act in the best interests of the rank and file union members. Only about 27 percent agreed that union leadership did act in the best interests of the members while nearly 60 percent disagreed. Two questions (63 and 65) reveal the opinions of the respondents regarding union power. Sixty-three percent felt that once a union was designated as the sole bargaining agent, nonmember employees would be forced to join. In addition, three quarters of the respondents believed that once unions enter an organization, they gain an excessive amount of power.

The only factor which bears a reasonably intuitive relationship to how the respondents feel about union leadership and power is the individual's past experience with unions. If he is a past member or if his parents or friends have had past experience with unions, then he is likely to identify with those past experiences. If those experiences impressed the individual negatively, he is likely to believe that union leadership is self-motivated and that unions gain excess power. If his experiences were positive, his opinions are likely to be positive.

Summary. The respondents are generally satisfied with both the tangible and intangible aspects of their work. These attitudes do appear to have an impact upon how they feel about unions, and due to the general satisfaction, the attitudes toward unions with respect to the work factors are negative. The respondents also appear to be generally satisfied with their treatment as individuals. There does seem to be a relation between how the individual views his treatment as an individual and his opinions of unions, and those opinions about unions are generally that a union can

be of little help to them in this regard. There appears to be ambivilance in feelings concerning supervision. Immediate supervisors are generally well thought of, but overall management of the organization is thought to be somewhat less than competent and effective. In general, there seems to be a relationship between how the individual feels about supervision and his opinions of unions. Those who are less satisfied with supervision are likely to be less negative toward unions and vice versa. Respondents expressed strong feelings, either positive or negative, when asked about the system. They believe that management should consult employees concerning personnel policies and working conditions, but they do not seem to think a union could be of much help to them in this area. In addition, there does not seem to be a strong relationship between how an individual feels about the system and his opinions of unions. The thrust of the section on the organization was an examination of the effect a union might have on the organization. While the respondents generally believe that unions can be more effective than they collectively might be as individuals, they feel that a union would be detrimental to management/employee relations. This attitude is reflected in the last section concerning the union itself. The respondents, depending upon the contact they have had with unions and union members, generally distrust the motives of union leaders and the power unions appear to gain once they enter an organization.

Additional Findings

This section concerns two factors which were tested in this effort which were not considered in the previous analysis. The first of these factors concerns whether an individual's knowledge of unions might affect his attitudes toward them. The

second factor considered was whether the opinions of unions might be based upon generalizations associated with organizations termed unions or whether those opinions might be based upon the objective consideration of the actions of unions.

Knowledge of Unions. As mentioned in Chapter III, questions testing the knowledge possessed by the respondents concerning some of the activities of labor unions and union members were included in the current survey. It was felt that it is possible that the knowledge an individual may have of unions and their activities might very well affect his attitude toward whether or not he might join.

With regard to the knowledge possessed by the respondents, 70 percent were correct in answering that there is no federal right to strike, only 43 percent knew that a contract with a union designated as a sole bargaining agent would cover both union and non-union employees, and only 19 percent were aware of the fact that their supervisor did not have the right to know whether or not they were union members.

Using Chi-square contingency analysis, 22 statistical significances were obtained at the .01 level or better. However, there was no consistent pattern to indicate that the knowledge or lack of knowledge by the respondents affects in any significant way their feelings either of unions or of union membership.

Union or Association. An additional question was included in the current survey to determine whether the respondents might consider joining a professional association which would perform essentially the same tasks and services as would a labor union. The intent of inclusion of this question was to determine whether the idea of organization for the purpose of collective bargaining was adverse to the attitudes of the respondents or whether it is a stigma associated with unions which created in the past

the negative conception of unions.

In comparing the responses to the question it appears that it is probably more a matter of opposition to the concept of organization for the purpose of collective bargaining than of any stigma which might be attached to union activities and membership that has caused the negative conception of unions. If one examines variables which have Chi-square significances with regard to Questions 62 and 69, he finds that there are nine factors common to both questions. In addition, of those nine, six not only bear a statistical significance, but an intuitive relationship may be drawn from the distribution of the responses. So it is likely that it is the idea of union activities that finds little sympathy with scientists and engineers.

Confirmation

One of the goals set forth in Chapter I was the confirmation or refutation of the findings of Gilpin and Haas. Webster defines confirm as to strengthen or ratify. In order to accomplish this, a comparison of the findings of this and the former thesis must be made. This comparison concerns whether the demographic factors which appear to affect the attitudes of the respondents remain the same for both studies. If this is true, then the former findings will be confirmed.

This discussion will be broken down into the same demographic factors employed by Gilpin and Haas to report their findings. The statistic used for this confirmation analysis is the Chi-square contingency table analysis, as discussed in Chapter III. Figure 2 in Chapter IV presents a graphic form of the comparison of the Chi-square results of the two studies. That figure makes a comparison by questions which are common to both studies and is one of the basis for this confirmation analysis. The

reader will observe from the figure that, of the 199 blocks which display a Chi-square significance, approximately 30 percent are common to both studies. Further, the reader will note that those demographics which display the greatest number of significances in the former study appear to act in substantially the same manner for the current study. The following discussion will focus upon how attitudes are affected overall in both studies.

Economic Factors. Gilpin and Haas found that scientists and engineers did not generally look favorably upon union membership regardless of their economic standing or security. However, they did find that if the individual believed a union could help an individual economically, he was likely to feel less negatively about unions. Most respondents to the former study felt that their salaries compared favorably to their counterparts in the private sector, but they did not feel that union dues would be compensated for by union representation. There was previously no apparent resentment due to salary compression, although some of the younger respondents appeared to feel that the differential between salaries received by white-versus blue-collar employees was less than favorable. In general, then, the respondents' needs were being met, and there was some inverse relationship between economics and attitudes about unions.

The same inverse relationship was discovered in the current survey analysis. The trend was weak, but it appears that if an individual believes a union can help him economically he is likely to be somewhat less negatively disposed toward them. Respondents to the current survey were less positive than those of the previous study about the comparison of their salaries to their contemporaries in the private sector, but they still did not feel that union representation would be compensated for by dues

paid. In general, then, the current results are substantially the same as those found in the previous study.

Job Security. Very few of the respondents to the previous survey were favorable toward unions, and even those who were displayed little appreciation for the ability of unions to allay any concerns which might have existed concerning job security.

In the current survey, Question 56 addresses specifically the question of whether the respondents feel a union might be able to prevent a RIF. The current analysis indicates almost exactly the same result as previously recorded. Only 8 percent of the respondents felt a union capable of ensuring their job security by preventing a RIF, and there was no indication that the two were statistically related using the Chi-square statistic.

Strikes. Responses to the previous survey appeared to indicate that the attitude of scientists and engineers toward unions might be changing and that the younger employees might be more positive toward the use of strikes to achieve desired results. In spite of this, however, the difference in attitudes toward union membership were not significantly different between older and younger employees.

Analysis of the current survey results indicate that there indeed is probably a shift in the attitudes of scientists and engineers concerning the legitimacy of strikes by non-critical employees in the government sector. That shift was a 23 percent shift in responses toward disagreement. This is opposite to the trend Gilpin and Haas indicated might be occurring. There does appear to be some indication that the younger employees (under 35) feel less strongly that strikes are illegitimate,

but negative feeling outweighs positive in this age group by more than two to one. However, there still is neither a statistical or intuitively obvious relationship between age and feelings about union membership. Therefore the analysis by Gilpin and Haas indicating a shift toward feelings of legitimacy of strikes is not confirmed by our findings although there does seem to be the relationship between age and feelings concerning legitimacy.

Individuality. As was mentioned in Chapter II, the focus of the previous study in the discussion of factors concerning individuality was the idea of the ability of the individual to affect decisions. It was the general finding of the Gilpin and Haas study that government employees were treated well and could affect decisions. It was found, as might seem obvious, that as GS rating increased there was a greater belief that the individual could influence decisions. With regard to length of service, the previous group of respondents felt that their ability to influence decisions increased until about the fifteen-year point in employment and then tapered off. At that same time, the group as a whole appeared to drift in the direction of a union being better able to help them.

The analysis of the current survey responses generally follows the same patterns as found in the previous study. Those who felt they had little say in decision-making were exceeded by half by those who felt they had some say in the decision-making process. We found that, as in the previous survey, as GS rating increases the individual feels he has a greater opportunity to influence decisions. In addition, it was found that those who are more satisfied with their economic situation, their

job in general, and their supervision also felt that they had a greater opportunity to influence decisions. The Chi-square analysis of the current responses did not yield a statistical significance between length of service and the opportunity to affect decisions. However, there were several statistically significant variables which might also act as indicators of length of service. We found trends in variables concerning income, GS rating, and total time as a scientist or engineer. Along with increasing time in government service would normally come increasing income, GS rating, and time in the work. Therefore, an examination of these variables might yield an indication of how time in service impacts the individual's perception of his ability to affect decisions. In each case, as income rises, as GS rating increases, and as time as a scientist or engineer increases, the opinion is that the individual has a greater ability to affect the decision-making process. We had no way of determining whether the quirk after the fifteen-year point in employment still applies, but indications from the other three types of variables indicates that it might not.

Personnel Administration. As discussed in Chapter II, the previous study included many topics under personnel administration. The major finding in this area was that the promotion system was viewed by the respondents as probably the weakest factor affecting them. However, they did not appear to feel that unions and seniority were the answer. They did not seem to have a definite answer to the situation, and possibly it was because they were not deeply concerned enough to look for a solution. They felt that working conditions in the organizations were acceptable. Their first-line supervisors treated them fairly, and they had a positive view of organizational

management. Thus it appeared to the previous researchers that the employees had divorced their bad feelings about the promotion system from their generally good feelings about the system. The researchers quoted sources concerning the fact that fair, perceptive and impartial supervision is the best defense against union organizational efforts, and they felt that the reason the dislike of the promotion system had little effect on the attitudes of the respondents was because of the favorable perceptions of management.

The current survey results indicate the same feeling regarding the weakness of the promotion system. Ten percent more respondents feel the system is unfair than think it is fair, and over 22 percent more think it is ineffective than think it is effective. This seems a rather strong condemnation of the promotion system by the perceptions of the employees. The respondents to the current survey appear to feel that working conditions are still adequate, although the feeling seems to be that conditions are deteriorating. The feelings of the respondents toward their supervisors was generally good. However, they did not feel as positively about overall organizational management. Unlike the Gilpin and Haas survey, our analysis indicates that these negative feelings concerning organizational management do have an impact on attitudes toward unions. In particular, there appears to be a relationship between how the individual feels about the competence of management and whether or not he will join either a union or an employee association with union objectives. The more negative he is about management, the more likely he is to be positive about union involvement.

Job Satisfaction. Results of the Chi-square analysis in the previous research effort

indicated that all the attitudes toward the organization were dependent upon job satisfaction, and that in addition, the attitudes toward the organization were determinants of the individual's attitudes toward unions. Those who were satisfied with their jobs and therefore felt good about the organization were less favorable toward unions than those who were less satisfied with both their jobs and the organization.

Results of the current analysis indicate much the same relationships exist as in the previous analysis. As mentioned in the previous section, management competence has an impact upon attitudes toward unions. Likewise, many other organizational attitudes bear much the same relationship. In addition, overall job satisfaction, indicated by combined job satisfaction scores, appears to have an impact upon union attitudes. This relationship is particularly strong concerning joining either unions or employee associations. Those individuals whose job satisfaction scores are high are much less likely to be favorable to joining either a union or an employee association with objectives typically ascribed to unions.

Negative Conception of Unions. The perceptions of the respondents to the previous survey concerning unions themselves appeared to be that, as organizations, they were dishonest and power-hungry. The researchers found that this perception of unions directly affects the individual's opinions of unions and union membership.

This negative conception of unions and their activities appears to continue to prevail in the current survey group. The respondents feel that a union might be more effective in collective bargaining with management than individuals might be on their own, but this does not by any means outweigh the negative factors. They think union leaders do not necessarily act in the best interests of the members, that

unions tend to gain an excessive amount of power, that a union will not be able to help them in case of a RIF, that they will not benefit from much higher salary increases, and that other professional employees have not been significantly helped by unions.

It is apparent from the above that the negative conception reported in the previous research effort still exists. However, at the statistical significance levels used in our analysis, we do not find a direct significance between the above-mentioned variables and the opinions of union membership. It does seem unlikely, however, that these opinions do not at least in some measure affect how the individual feels about union membership.

Educational Background. Educational level was found in the previous analysis to be inversely proportional to the opinions the respondents held of unions. This might be due to the education itself, or, as the previous study indicated, it might be due to the fact that as an individual becomes more educated he probably has more bargaining power in gaining or changing jobs.

The analysis of the current data indicates that, unlike the previous study, there is no apparent relationship between an individual's educational level and his attitudes toward unions. Although there was a statistical significance between the educational variable and several of the union opinion variables, responses were confined primarily to one category or the other with little deviation with change in educational level.

Age. The Gilpin and Haas analysis indicated that there were no clear trends in attitudes concerning unions, and in addition, there was no significance based upon

age as to whether an individual would or would not join a union. However, they did find that older employees exhibit less hostility toward unions in some respects even though they still would not join, since unions could do little to improve their status.

The results of the current analysis agree substantially with those of the Gilpin and Haas findings. Although there is a Chi-square statistical significance among age and several attitudinal variables concerning unions, no intuitive relationships can be drawn.

Degree of Professional Development. The analysis conducted in the previous research effort uncovered no clear trends which would indicate that the degree of an individual's professional development had any effect upon his attitudes toward unions in general or toward union membership.

As with the previous study, questions regarding the number of professional conferences attended, number of papers published, and number of patents granted were used to analyze the degree of an individual's professional development. Chi-square analysis indicates a very few statistical significances, and there is no clear indication that degree of professional development has any impact upon an individual's opinions of unions or his attitudes toward membership.

Past Experience with Unions and Union Members. The research and analysis conducted by Gilpin and Haas indicated that an individual's experience with unions and union members was by far the most decisive determinant of his attitude toward unions. If friends and acquaintances of the respondent had a negative experience

with unions the respondent appeared to identify with this experience. If, on the other hand, the union had been helpful to the individual with whom the respondent had come in contact, the respondent was more likely to look favorably upon unions.

The current survey analysis indicates substantially the same result as was found in the previous study. An individual employee's past experience with unions and union members was the most consistent indicator concerning attitudes toward unions. If the respondent indicated no previous experience or exposure, then his opinions tended to be rather negative toward unions and union activities. But in the cases where the individual himself, his parents, or his friends were or are union members, the experiences of those individuals bear a consistent relationship to the responses. If the experiences of those individuals had been viewed as negative, then the affected individual is most likely to have a negative opinion of unions --more negative than those with no experience. If the experiences of those individuals were positive, the respondents are much more likley to be amenable to unions and union activities.

Employment Background. The previous analysis determined that the scientists and engineers were not a homogeneous group of employees. It was found that the scientists were more pro-union than were the engineers. The percentage of scientists who indicated they would join a union was almost double the percentage of engineers who indicated the same attitude. The remainder of the Gilpin and Haas discussion centered upon length of service. In general, it was found that as length of service increased, opinions concerning the individual's effectiveness at controlling his

environment became more negative. Even so, ambivalence was displayed in attitudes toward various union actions based upon longevity, salary, and GS rating. These varying opinions also appeared to have no impact upon attitudes toward union membership.

Analysis of the current survey responses indicate much the same result as previously observed. The scientists in the survey population do appear to be more pro-union than the engineers.

With regard to the longevity discussion, the current analysis again discloses much the same result as the previous analysis. However, the authors find some fault with the presentation of the remainder of the Gilpin and Haas discussion. It would appear that if there exist two distinct groups within the population surveyed, then each segment should be treated on an individual basis. In that regard, an analysis of the segments in the current survey does not yield a discernable difference in the attitudes of the two groups with regard to the longevity factors considered by Gilpin and Haas.

Summary. As mentioned in the introduction to this section, the purpose of the confirmation was either to lend strength or validity to the findings of Gilpin and Haas or to refute their findings. Analysis of economic factors indicates that the same inverse relationship between economics and union attitudes still exists although it is somewhat weak. Attitudes concerning the ability of a union to ensure job security were difficult to determine due to the overall negative attitude toward unions. Individuality, as evaluated based on the individual's sense of his ability to influence decisions yielded

the same result as previously. That is, the individual generally felt his ability increased as GS rating increased and time went by. However, the fifteen-year point reversal in attitudes was not visible in the current analysis. The personnel system is still viewed as weak, and attitudes are becoming more pessimistic. In addition, the same inverse relationship exists between whether an individual feels management is competent and effective and whether he will join a union. This same inverse relationship still exists with respect to job satisfaction as well. The negative conception of unions noted in the previous study still appears to exist, although the current analysis does not yield the same direct statistical significance with respect to union membership. As with the previous study, the current analysis indicated no intuitive relationship between age and several union attitude variables. This same result is true with respect to degree of professional development. Finally, as with the previous research effort, the results of the current analysis indicate that the most significant determinant of opinions of unions and attitudes toward union membership is past experience with unions. Individuals will tend to identify with the opinions of parents or friends who have had direct contact with unions in the past.

There are, however, two areas in which the current analysis does not support previous findings. The first is with respect to educational background. Gilpin and Haas found that educational level was inversely proportional to opinions held of unions. The current analysis yields no such trend. Second, Gilpin and Haas indicated that younger employees might be tending to favor strikes and related activities as a legitimate means of achieving goals. The current population, however,

in the attitudes of the population. The other perspective was to segregate the respondents into groups and see how they differ and why. First, the survey was divided into the primary organizations of ASD, AFWAL, and the 4950th Test Wing, and the differences among these organizations were analyzed. Finally, a select group identified as technicians was compared with the rest of the population.

Trend Analysis. As mentioned in the first part of this chapter, it was found that the attitudes of the scientists and engineers at Wright-Patterson AFB were, on the whole, negative toward unions. This is consistent with findings of Gilpin and Haas. In the attitude section of the questionnaire, Questions 40-46, 51, and 56-68 dealt with attitudes toward unions. In comparison with the responses of the previous study, it was found that the population now is more negative with respect to their overall attitude toward unions. Of the 20 questions involved in this comparison, 17 in this study were more negative in the mean average response than the previous study. Questions 58 (benefit with larger salary increases), 61 (union seniority and morale), and 65 (unions force membership) were the three questions with a mean response more positive than in the previous study two years ago. However, the differences in mean responses were very small and not statistically significant.

Of the 17 questions that indicated a more negative trend in attitudes toward unions 8 were significant at the .05 level, with 6 of these at the higher level of significance of .01. The six questions significant at the .01 level were presented in Chapter IV. Question 62 (I would join a union) and 68 (no need for unions to resolve disputes) were significant at levels between .05 and .01 and were not mentioned in Chapter IV. In the opinion of the authors, the findings definitely indicate a trend toward a more negative attitude of scientists and engineers with respect to unions.

To analyze the attitudes of scientists and engineers toward their respective organizations, Questions 47-50 and 52-55 were examined. Six of the questions had a mean of neutral and the other two means indicated a positive response. Comparing the mean response of these questions to corresponding questions in the 1974 study, Question 47 (promotion fairness) was found to be more positive in this survey. However, the difference was not statistically significant.

Of the other seven questions that showed a more negative attitude, three were significant at the .05 level or better. The three questions were: 48 (working conditions), 54 (given credit for work), and 55 (management competent and effective). It is the opinion of the authors that the findings indicate a trend in the attitudes of scientists and engineers with respect to their organization toward being less favorable.

The personal information section of the survey was also analyzed to provide an overall view of the population being surveyed. Comparing the current demographic information with that collected over two years ago, it seems that the population is composed of substantially the same individuals. The findings show that the average age has increased by about 1.8 years with the current average being in the late thirties. Likewise, the time spent in the organization has increased about 1.8 years with time working for the government increasing about two years. It seems that even though more scientists and engineers have moved into management positions, the average GS rating has remained the same. Mean income over the past two years has increased about $ 2000, which is easily explained by the normal cost of living pay increases of 5 percent per year against an average income in the lower twenty thousands. Considering the inflation rate, this is a reduction of the real income for most of the population. These findings agree with information discussed in Chapter II and sub-

sequent talks with Civilian Personnel Administration at Wright-Patterson AFB. The policies of reducing the number of individuals hired and attempting to reduce the average GS rating are reflected in this survey. The number of young scientists and engineers in GS-7 and GS-9 ratings has decreased from 200 to 184, and this, coupled with the fact that industry is not hiring, has resulted in a reduction in both input and outflow of people in the population surveyed. This stagnation is also reflected in the overall decrease in satisfaction with work and the work environment. This seems to be a reasonable result with the population getting older and fewer possibilities for advancement.

The emphasis of this section is on gaining an understanding of the factors that contributed to the trends in attitudes of scientists and engineers toward their organization and toward unions and unionization. Both specific and generalized relationships were analyzed to identify factors which may be related to the changes in attitudes. Variables in the personal information section that showed significant changes are compared with variables in the attitude section that have also indicated significant trends. This comparison is facilitated by the use of the joint frequency tables to identify possible relationships that support the T-Test results. First, significant variables in the personal information section will be compared with significant variables concerning the organization, and then with significant variables concerning attitudes toward unions and unionization.

There are five questions in the personal information section that may provide explanations to changes in attitudes toward one's organization. With respect to Question 1 (time in the organization) the T-Test indicated that there was a significant increase in the average time that scientists and engineers had been members of a

particular organization. The joint frequency table analysis showed that, as the time one was a member of an organization increased, there was a tendency to feel that conditions in that organization had deteriorated. This relationship seems to support the finding that, according to the T-Test on Question 48 (working conditions), conditions have significantly deteriorated.

Question 13 (income) was another factor which had both a significant change in the T-Test and an intuitive relationship from the joint frequency table analysis with one of the attitude variables that also had a significant T-Test result. The joint frequency table analysis showed that as one's income increased, there was a feeling that working conditions had deteriorated. This seems to be supportive in explaining the trend toward a more negative attitude toward one's organization. It is not clear to the researchers as to why income would be a factor that would explain this negative trend because, in fact, real income had decreased.

Two questions in the personal information section indicated a significant decline in job satisfaction. Both of these questions; 17 (feelings toward job) and 19 (feelings toward change in job), had a significant relationship with Question 55 (management competence). The analysis indicated that as job satisfaction declined, the attitude toward management competence became more negative. This decline in job satisfaction seems to be related to a more negative attitude of scientists and engineers toward their organizations and management. Question 17 is also significantly related to attitude Question 54 (credit for work). The joint frequency table analysis indicated that as one became less satisfied with his job, he also felt that management was less competent. This confirms the relationship between the T-Test result which showed that both job satisfaction and feelings toward management competence have declined.

The final variable in the personal information section to be a possible factor is Question 30 (years employed with the government). In comparison with the previous study, the average number of years that scientists and engineers have been employed with the government has increased significantly. Along with Question 1 (time in the organization), this factor seems to support the trend of a more negative attitude toward one's organization as indicated by Question 48 (working conditions). The joint frequency table analysis indicated that as the number of years employed with the government increased, the respondent tended to have a more negative attitude with respect to working conditions. This supports the T-Test results.

From this analysis, five variables from the personal information section seem to have a plausible relationship with the negative trend in the attitudes of the scientists and engineers toward their organizations. When comparing the factors in the personal information section with significant union attitude questions, no plausible relationships existed that could provide explanation for union attitude trends. In every case where a joint frequency analysis indicated, for example, a more positive trend in union attitudes, the T-Test results were contradictory. Therefore, this analysis did not find any individual factors measured by this survey that explain the union attitude trends.

Besides attempting to find individual factors to explain trends in attitudes, factors were created by grouping similar questions. The personal information section and the attitude section of the questionnaire can be broken into groups of questions that cover more general areas of information. The questions in the personal information section can be subdivided into questions involving union knowledge, union experience, satisfaction with management, feelings of well-being with respect to the job, job

satisfaction, and demographic information. The attitude section can be divided into questions measuring attitudes toward unions and attitudes toward his organization (Questions 47 to 50 and 52 to 55). It was found that questions dealing with job satisfaction, Questions 17 to 20, and the COMSATSCO provided the best explanation for the trend with regard to the more negative attitude displayed by the respondents toward their organizations. There was an overall decrease in job satisfaction and this trend was in agreement with the subjective interpretations of the joint frequency analysis as a possible factor in explaining the negative attitude toward one's organization. However, in attempting to find factors to explain the trend in union attitudes, none of the questions in the personal information section were of much help.

Since it was difficult to explain the negative trend in attitude toward unions by looking at the personal information section, a FASTAB analysis was used to compare the organizational attitude questions with the union attitude questions. This analysis compared 22 union attitude questions with 8 that dealt with one's attitude toward his organization. Of the possible 176 paired relationships in this analysis, 48 percent were found to be significant at the .01 level. In practically all of the paired combinations at the .01 significance level there existed a rational and intuitive relationship. In examing the joint frequency tables, it was found that as one's attitude toward his organization became more positive, his attitude toward unions became more negative. This relationship was in agreement with the classical antagonistic relationship of unions and employers. This analysis, likewise, does not explain the negative trend toward unions. According to the T-Test result, there was both a negative trend in one's attitude toward his organization and toward unions.

The questionnaire provided some factors that may have a bearing on the trend in the attitudes of scientists and engineers toward their organizations but does not provide any satisfactory clues for the trend in union attitudes. The statistical analysis showed the intuitively obvious relationship of job satisfaction and one's attitudes toward his organization. Those factors which cause a lowering of job satisfaction are found to be possible explanations for the negative trend in attitudes with respect to one's organization. However, it was not possible to derive possible factors to explain the negative trend with respect to the attitudes of scientists and engineers toward unions. From the statistical analysis, it was most reasonable to expect a more positve attitude toward unions, yet the opposite was found. This contradiction in the analysis leads the authors to suspect that there may be some factors not covered by the questionnaire that have an overriding influence on the expected positive trend toward unions.

The comments provided by the respondents and the information collected from the interviews and the literature search were also used to provide insight for this trend analysis. The survey confirmed much of what the authors expected with respect to the personal information section of the survey and the attitudes of the respondents toward their organizations, as mentioned in Chapter II. From the comments provided by the respondents, factors concerning advancement and bureaucracy predominate over those caused by the reduced hiring and the policy to reduce the average GS rating of the work force have had a debilitating effect on morale. Some of the respondents mentioned that there has been an increase in the amount of paperwork which detracts from their primary job. This comment, coupled with the comment

that the hard worker was not being rewarded with promotion, has aroused a sense of frustration with the bureaucratic system. Also, there were several comments criticizing the poor communication between the operatives and their supervisors.

As mentioned in Chapter II, the authors expected a more positive attitude toward unions. The responses to the questions in the survey and the comments provided by the respondents indicated a completely opposite attitude.

From the comments, the authors found that the respondents were rather cosmopolitan in their views of unions. The respondents did not approach unions in a stereotyped fashion, but were discerning in their comments. The respondents addressed their comments with respect to whether the union was large or small, its membership was exclusively professional or not, and to what type of leadership it had. The respondents had positive feelings toward unions for what unions had done in the past. They believed that unions were helpful when dealing with an insensitive management or when the workers were truly being exploited by their employers. Along with the positive comments, respondents also expressed many negative feelings about unions. They seemed to believe that unions were as bureaucratic as the laboratories and therefore would be of little help in solving the problems associated with bureacratic systems. The respondents were consumer oriented, in that they felt that the benefits gained by unions would, in the long run, contribute to the cost of living. The increase in the cost of living, then, would offset any gains; that is, the scientists and engineers associated unions with inflation. Also, the respondents were nationalistic and selfless in viewing unions. They viewed their jobs as performing a service to the nation, that they contribute to keeping this nation strong and

free, and that only Congress had the right to dictate terms and conditions of employment. They felt that unions have no right operating in the public sector, that they are a threat to national well-being and would cause an extra burden on taxpayers. The respondents felt that because they were economically well off, unions would not increase their degree of economic satisfaction to any great extent. The comments also reflected the negative publicity that unions have been receiving in the news media; with comments about the corruption and Teamsters, Jimmy Hoffa and the Mafia, and public union strikes with loss of public services. There is a tendency, at times, to associate unions with the Teamsters and consider the larger unions to be infected with graft and corruption. The well-publicized strikes by public service unions are viewed by the scientists and engineers as being harmful to society, which is an antithesis to the concept of being professional.

From the comments provided by the respondents, there seem to be two salient factors which may explain the negative trend toward unions over the past two years. These factors are: the negative publicity given unions recently, and the association that the respondents have between inflation and unions. It is the opinion of the authors that these two factors have an overriding influence on the attitudes of the survey population toward unions. These two factors are considered overriding because they have a stronger influence than the factors measured by the survey which would indicate a more positive attitude toward unions.

Inter-Group Analysis. This section attempts to identify factor relationships by looking only at the data collected in this research effort. The data is divided into groups representing ASD, AFWAL, and the 4950th Test Wing. From the T-Test results,

the three organizations were compared with respect to attitudes toward unions and the respondent's attitudes toward his organization. After this analysis, those respondents identified as technicians were segregated from the rest of the respondents to see how this group affects the overall distribution of the responses to the questionnaire.

Organizations. In regard to union attitudes, ASD was compared against the 4950th Test Wing. ASD in the personal information section had significantly higher education, income, feeling of economic standards and security, and a higher average GS rating than the 4950th Test Wing. ASD, on the other hand, had a significantly lower satisfaction with respect to the amount of time one was satisfied with his job. In general, ASD personnel were better off in areas that were related to income but were less satisfied in those areas that involved satisfaction with job or management.

More specifically, it was found that ASD and the 4950th Test Wing had a common and significant relationship between Question 13 (income) and Question 42 (unions increase one's personal status). The joint frequency table for this relationship indicated that as one's income increased, there was less of a feeling that unions would have any positive effect in increasing one's personal status and if a respondent made more than $20,000 the table indicated that unions had no effect.

In reviewing the comments provided by the respondents from these two organizations, it seems that the feeling of security or well-being is an important and relevant factor. After a person attains a certain standard of financial security with respect to society, the individual ceases to look upon unions as a possible source

of benefit. He tends to be very negative in views toward unions and looks upon unionization as a threat to his financial security and status.

With respect to the attitudes of the scientists and engineers toward their organizations, members of AFWAL as a whole had the least favorable opinion toward their respective organization. AFWAL, in relation to the other organizations, was shown to have the lowest satisfaction in questions that measure satisfaction with the job. Also, scientists and engineers in AFWAL were shown to be less satisfied in questions measuring satisfaction with management and work environment. In reviewing the comments provided by the respondents it was noted that AFWAL had the greatest proportion of the comments concerning the organization. These comments covered three main areas. One was promotions. There was a feeling that promotions were fair only at the lower levels, but that promotions at higher levels were mostly political. It was also thought that those promoted to the higher positions were not always the most competent in human relations. The second area criticized the bureaucracy. Criticism in this area centered around complaints that the volume of paperwork interfered with the accomplishment of assigned tasks. That is, more time was spent justifying proposed or accomplished work than the amount of time available in actually doing the job. The third area was concerned with job security and the reduction in force (RIF). A few years ago, AFWAL experienced the trauma of having one of its laboratories disbanded. This event and the present threat of further RIF's were reflected in the concern for job security. The comments were highlighted by one of the respondents attaching a copy of his RIF notice to the questionnaire.

Technicians. The respondents indentified as technicians formed a relatively homogeneous population. They were between 45 and 60 years of age, not many were in management positions, most have little or no college education, and their income was between $15,000 to $20,000 annually. Most technicians at Wright-Patterson AFB have GS ratings below 7. However, during the Korean War era, there was a shortage of engineers and many technicians who had technical experience comparable to engineers were promoted into positions with commensurate GS ratings once held by engineers. This group now holds GS ratings between 9 and 12, but for various reasons have not been promoted beyond this grade nor advanced into management positions. In comparison with the rest of the respondents, the technicians were more satisfied with their work, were less satisfied with supervision, the organization, pay, promotions, and advancement. This group was also more concerned about economic security and the spector of the RIF. In the attitude section of the study, the technicians were more negative in response to questions concerning the organization. As a whole, this group do not influence the statistical results with respect to union attitudes. It was noted that this group was slightly more positive toward unions in areas concerning RIF, promotions, and unions' ability to affect management relations.

The authors were able to make some inferences as to factors that tend to influence attitudes of the respondents. These factors were a result of the statistical analysis on the technicians and from discriptions of similar groups in management literature. The technicians analyzed typify the older respondent who has reached the end of the line, who has had his last promotion. He has reached his limit in the organization

and must face a readjustment of his level of aspiration. Because his opportunites for further growth and self-realization are partially blocked, he tends to be less satisfied and motivated. Maintenance factors associated with the job become more important. Therefore, the factors of economic and job security are important factors which influence his attitude toward his organization.

Summary of T-Test Analysis and Discussion. In comparing the responses of this study with the one conducted by Gilpin and Haas, it was found that the population had become more negative in their attitudes toward unions and their own organizations. The personal information comparison showed stagnation in population turn-over rate and advancement, and a decrease in job satisfaction. From this analysis, job satisfaction had a strong relation to one's attitude toward his organization. Only the external factors of negative publicity and the association of unions with inflation had a causal relationship with union attitudes.

In comparing the different organizations in this study, additional factors were found to have some relationship with the attitudes of the respondents. Such things as economic and job security, and treatment by the organization have some bearing on attitudes toward unions. Areas dealing with promotions, job satisfaction, and freedom to do the job well were found to be associated with topics concerning organizational attitude.

VI. Conclusions and Recommendations

This chapter presents the overall conclusions reached during this research effort and recommendations for further study. Methods are also suggested for improvement of subsequent research which might further examine the subject of professional unionization.

Conclusions

This section presents a summary of the overall conclusions drawn from the data and data treatments employed in the analysis of these survey data. The conclusions may be broken down into four areas. The first area will concern the general conclusions of this thesis research. The second concerns comparisons drawn between this and the previous thesis. The third presents trends which are thought to have been identified. Finally, the fourth deals with some of the internal factors which appear to cause differences in attitudes among smaller groups within the population surveyed.

The most important single conclusion which can be drawn from this survey is that the attitudes toward unions and union membership remain negative, and that the scientists and engineers employed at Wright-Patterson AFB would generally not support unions or union membership.

Several factors appear to influence respondent attitudes toward unions. One of these factors is that the respondents are generally satisfied with many aspects of their work. They indicated satisfaction with various tangible and intangible aspects of their jobs, and they report that they are generally satisfied with how

they are treated as individuals. While this feeling of satisfaction with treatment as individuals is manifested in their satisfaction with their immediate supervision, the general opinion of overall management is not similarly positive. They feel that top management, on the whole, is not particularly competent or effective.

This negative sentiment extends to the question of personnel policies and working conditions as well. Strong feelings are indicated both positively and negatively toward the effectiveness of the promotion system, and working conditions are generally thought to be deteriorating. However, the respondents do not appear to believe that a union can be of much assistance in these areas.

This opinion of union capabilities may be due in part to the respondent's attitudes concerning three other factors. The first is that they generally feel that unions would be detrimental to organizational effectiveness and management/employee relations, even though they suspect that union representation might constitute an improvement over the current situation. Second, the respondents, depending to some extent on their previous contact with unions and union members, generally distrust union leaders. Finally, respondents seem to be wary of the power unions appear to gain once they enter an organization.

Questions contained in this survey but not included in the previous effort accounted for two interesting conclusions. The first is that the knowledge possessed by the respondents concerning unions and union activities does not appear to affect in any significant way their feelings either toward unions themselves or toward union membership.

The second conclusion drawn from these additional questions is that it appears

that the generally negative opinion held by the respondents toward unions appears to be a result of an opinion based upon the aims and activities of unions, rather than some connotation associated with the word "union." This conclusion is based upon the fact that substantially the same negative opinion was attached to a professional association which would represent the employees in matters traditionally considered the purview of unions.

With regard to the ability of the results of the current research to confirm the findings of the Gilpin and Haas effort, the current findings are very similar in most important respects. The current research indicates essentially the same attitudes and opinions and relationships between demographics and attitudes for the following factors: econcomics, job security, individuality, personnel administration, job satisfaction, conception of unions, age, employment background, level of professional development, and past experience with unions. However, two areas were noted where differences existed between the previous and current findings. The first concerns the fact that Gilpin and Haas found an inverse relationship between educational level and opinions of unions. The current analysis yields no such trend. The second difference is that the previous analysis indicated that there might be a trend among younger employees toward a more favorable view of strikes and related activities as a legitimate means of achieving their goals with respect to the organization and their jobs than the rest of the survey population. The current analysis indicated that younger employees may be a little less negative toward the use of the strike than the older scientists and engineers, but that does not in any significant way offset the fact that the population as a whole has shifted significantly

toward a more negative attitude.

The trend analysis conducted during this research effort uncovered some interesting conclusions when comparing the current results with the previous work of Gilpin and Haas over two years ago. Personnel policies which have been in effect since the last survey effort appear to have resulted in stagnation of the population by reducing the turn-over rate and in a decline in perceived promotion opportunities. These personnel policies, coupled with increased dissatisfaction with the job environment, are closely related to the negative trend in attitudes of the scientists and engineers toward their organizations. The trend analysis also noted a more negative attitude of the population toward unions than was held during the previous analysis.

The statistical analysis did not provide reasonable explanations for the more negative attitudes of the respondents toward unions. Because of the inverse relationship which was discovered between attitudes toward unions and attitudes toward the organization, a more positive attitude toward unions was expected. Comments by some of the respondents lead the authors to hypothesize that this trend is due to some external factors which strongly influence the attitudes of the respondents. These external factors include the extensive negative publicity unions have received in the news media and the association drawn between unions and the inflation problem.

The inter-group analysis performed on the data from various organizational groups provided the authors with additional insight into some of the factors which influenced the attitudes of the respondents. The results of this analysis indicate that if a person perceives himself to be well off economically, and if he has a positive feeling toward

his job and work environment he is likely to be negatively disposed toward the idea of unionization. On the other hand, if the respondent perceived that his needs for personal growth and self-fulfillment are not being met he is more likely to be positive toward the idea of unionization. In addition, the effect of time in terms of such things as seniority, pay, and GS rating were shown to impact the opinions of unions. If needs for personal growth are not being fulfilled, and if the individual is not particularly successful within the organization and in his job, then the older he gets the more likely he is to favor the union as a means of ensuring job security.

Recommendations

The findings of this research effort indicate areas in which recommendations might be of value to management personnel and to individuals who might be interested in deeper or broader studies in this same subject area.

There are three areas which might profit by management investigation. The first is the promotion system. Scientists and engineers believe the promotion system is fair but not effective. They do not seem to think the right people are getting promoted, and this is a cause of dissatisfaction. Therefore, management awareness, investigation, and alleviation of the causes of this problem may contribute to greater satisfaction among scientists and engineers.

Secondly, comments indicated that scientists and engineers, particularly in AFWAL, felt that they were spending too much of their time with paperwork and reporting. AFWAL was supposed to alleviate some of the administrative burden from the working level, but they have not seen this occur. The need for the amount of paperwork performed, therefore, might be an area for management investigation.

Thirdly, the scientists and engineers perceive that top management is not responsive to their needs and problems. This appears to be due to lack of effective communication between the organizational levels. Therefore, management might investigate possible methods of enhancing communication among the working levels. One technique might be the use of an ombudsman who has access to all levels and can squelch rumors and handle complaints and communication problems.

With respect to the methodology employed during the course of the thesis, several recommendations can be made. It is the authors' overall recommendation that some background or at least initial consideration of the various techniques of multivariate analysis would be valuable in considering which tools might be most powerful in an evaluative sense. In a more technical sense, four recommendations are appropriate. First, it is suggested that all coding of the survey be changed to numeric. This will greatly facilitate initial computer coding. Second, the authors recommend that for analysis, those questions with nominal rather than interval or ordinal responses be recoded using dummy variables. In that way, the responses can be more effectively analyzed. Third, it is recommended that Question 6 be reworded. There was apparently some confusion among the respondents concerning the information requested, because many answered with the type rather than year of their last degree. Fourth, it is recommended that Question 26 be amended to include the response, Technician. This is due to the inclusion of technicians in the sample whose opinions had some effect on the outcome of the responses as discussed in Chapter V.

It is the recommendation of the authors that in any follow-on study, the questionnaire itself be edited with an eye to questions which might be more appro-

21. How often are you given feedback from your supervisor about your

priate to drawing correlations between the various factors tested and union attitudes. There has been much research in the past concerning the development of questions correlating job satisfaction with attitudes, but the area of union attitudes seems to be somewhat lacking. The comments received in response to this survey might well be a good starting point for this effort since some indicated possible weaknesses in the survey instrument itself. These comments were deposited with Dr. Manley at the conclusion of this effort.

Finally, it is the recommendation of the authors that this survey, as ammended and edited as suggested above, be used to determine whether the attitudes expressed by this group of respondents are more widespread throughout government employment. This could be accomplished by administering the survey to government-employed scientists and engineers at other locations. This might in the long run allow some conclusions to be drawn concerning the homogeniety of the attitudes and opinions of scientists and engineers in the public sector in general, and that in turn might lead to a better understanding of this sector of the work force.

Bibliography

1. Allen, John L., Rodney E. Grantham, Donald B. Nichols. "The DOD Laboratory Utilization Study." Office of the Director of Defense Research and Engineering, pp 24-26 (28 Apr 75).

2. Bowman, James S. and David L. Norman, Jr. "Attitudes Towards the Public Service: A Survey of University Students." Public Personnel Management, 4:113-121 (March-April 1975).

3. Chamot, Dennis. "Professional Employees Turn to Unions." Harvard Business Review. 54:119-127 (May-June 1976).

4. Culotta, Anthony J. "The Future Job Market." Astronautics and Aeronautics. 14:42-49 (June 1976).

5. "Engineering Supply Down; Demand Remains High." Industry Week. 184: 23-24 (January 1975).

6. "Engineering Pay Climbs Higher But Inflation Negates Gains." Engineering News-Record. 194:46 (2 January 1975).

7. "Exploring Alternatives to the Strike: Alternatives in the Public Sector." symposium. Monthly Labor Review. 96:43-52 (September 1973).

8. "Federal Pay Raise Limited." Monthly Labor Review. 98:79 (November 1975).

9. Freund, John E. Mathematical Statistics. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1971.

10. Gartaganis, A. J. "Trends in Federal Employment: 1958-72." Monthly Labor Review. 97:17-25 (October 1974).

11. Gilpin, Richard G. and Charles D. Haas. The Attitudes of Professional Federal Employees Toward Unions: A Study of Scientists and Engineers. Unpublished thesis. Wright-Patterson Air Force Base, Ohio: Air Force Institute of Technology, September 1974.

12. Goodfellow, Matthew. "What's New in Union Organizing Campaigns?" Best's Review. (Life/Health Insurance Edition) 76:10-12, 88-92 (6 October 1975).

13. Gregory, Robert A., et al. "Quality of Life in the U.S. Air Force," Proceedings: 17th Annual Conference of the Military Testing Association on 15-19 September 1975. U.S. Government Printing Office.

14. Haga, William James, "Can an Engineer Join a Union and Still be a Professional" Astronautics and Aeronautics. 13:30-42 (December 1975).

15. Hudock, Robert,P. "New Unionization Moves for Engineers" Astronautics and Aeronautics. 13:8 (January 1975.)

16. "In Wage Bargaining-Tough Year Ahead" U.S. News and World Report. 79:81-82 (October 13, 1975).

17. Jones, Robert R. "Good News This Year for R&D Scientists" Industrial Research. 17:54-59 (March 1975).

18. Kline, S.M. "Membership in Labor Unions and Employee Associations 1972" Monthly Labor Review. 97:67-69 (August 1974).

19. Manley, T. Roger, et al. "A Quick-look Analysis of a Survey Examining the Perceptions of Air Force Personnel Toward Military Unionization" Unpublished report. USAF Director of Personnel, Plans, and Policies, AF/DPX, Washington D.C., June 1976.

20. "National Science Foundation Sees Major PhD Oversupply for the 1980's" Physics Today. 64:28 (July 1975).

21. Newbauer, John. "Managing Engineering Resources" Astronautics and Aeronautics. 13:14-17 (March 1975).

22. Nie, Norman H. et al. Statistical Package for the Social Sciences. McGraw-Hill, New York, 1975.

23. "Pay for Federal Workers: Too Much or Too Little?" U.S. News and World Report. 79:70-71 (August 25, 1975).

24. "Public Employees Lose Leverage" Business Week. 24:15 (December 22, 1975).

25. "That's All We Need: Strike Threat for Higher Wages" Forbes. 116:69 (November 1, 1975).

26. The Congressional Digest. 55:33-54 (February 1976).

27. "UAW Stepping Out" Astronautics and Aeronautics. 13:14 (February 1975).

28. "Unions are Gaining Among Aerospace Professionals" Industry Week. 186:22-27 (August 11, 1975).

29. U.S. Bureau of the Census, Statistical Abstract of the United States: 1974 (95th Edition.) Washington, D.C., 1974.

30. Webster's Seventh New College Dictionary. G. & C. Merriam Co., Springfield, Mass., 1965.

APPENDIX A

Questionnaire

DEPARTMENT OF THE AIR FORCE
AIR FORCE INSTITUTE OF TECHNOLOGY (AU)
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433

REPLY TO ATTN OF: AFIT(ENS)/LtCol Manley/52549 10 Jun 76

SUBJECT: Questionnaire Concerning Attitudes Toward Federal Employee Unions (USAF SCN 74-151)

TO: Randomly Selected WPAFB Personnel

1. Attached is a questionnaire designed to survey attitudes of professional government employees toward labor unions. The instrument is the same one we administered in 1974. What we are attempting to do is identify any changes which may have occurred over the past two years.

2. Your name was randomly selected. You are asked to read the accompanying instructions and complete the questionnaire whenever you have the free time. Completion should take between 10-20 minutes. Please return the questionnaire in the envelope provided.

3. Response on your part is completely voluntary. Anonymity is guaranteed. Only my co-researcher, Maj Chuck McNichols, and two of our graduate students working on their Masters' thesis research will have access to your responses.

4. As you undoubtedly appreciate, the success of this research is totally dependent upon you cooperation. On our part, we will provide each randomly selected addressee with summary results of the study. In this way we hope that we may partially repay you for your consideration. Management will be provided copies of the same summary. Thank you very much.

Sincerely

Roger Manley

T. ROGER MANLEY, Lt Col, USAF
Associate Professor of Management and Organizational Behavior
Department of Systems Management
School of Engineering

1 Atch:
Questionnaire

PRIVACY STATEMENT

In accordance with paragraph 30, AFR 12-35, the following information is provided as required by the Privacy Act of 1974:

a. Authority:

(1) 10 U.S.C., 80-12, Secretary of the Air Force, Powers, Duties, Delegation by Compensation; and/or

(2) EO 93-97, 22 Nov 43, Numbering System for Federal Accounts Relating to Individual Persons; and/or

(3) DOD Instruction 1100.13, 17 Apr 68, Surveys of Department of Defense Personnel; and/or

b. Principal purposes. The survey is being conducted to collect information to be used in research aimed at illuminating and providing inputs to the solution of problems of interest to the Air Force and/or DOD.

c. Routine Uses. The survey data will be converted to information for use in research of management related problems. Results of the research based on the data provided, will be included in written master's theses and may also be included in published articles, reports, or texts. Distribution of the results of the research, based on the survey data, whether in written form or presented orally, will be unlimited.

d. Participation in this survey is entirely voluntary.

e. No adverse action of any kind may be taken against any individual who elects not to participate in any or all of this survey.

PLEASE READ THE FOLLOWING INSTRUCTIONS BEFORE ANSWERING THE SURVEY

Answer the questions as of June 1976.

Select only one answer to each question, and circle or check (as appropriate) the most correct answer.

This survey contains two types of questions: those that deal with facts concerning you and your background, and those that ask for your opinions and attitudes toward your job and unions. Answers to questions of fact will be self-evident. Answers to questions of attitude or opinion are scaled in terms of like or dislike, agree or disagree. Please consider each question independently and be as accurate as possible in scaling your answers.

If you find one or more questions for which you feel the responses do not accurately reflect your best answer, please answer as accurately as you can within the framework of the question. The final page of the survey has been left blank for your comments. Please number each comment with the number of the question to which it refers. Any general comments you have concerning the content or structure of the survey will also be appreciated.

When you have completed the survey, please return it through internal distribution in the envelope provided.

Thank you for your cooperation and help in completing this thesis effort.

1. Number of years with the organization (check one):

1.____ 0-2 years
2.____ 3-5 years
3.____ 6-10 years
4.____ 11-15 years
5.___ 16-20 years
6.___ 21-30 years
7.___ over 30 years

2. Total time as a research/development scientist or engineer (check one):

1.____ 0-2 years
2.____ 3-5 years
3.____ 6-10 years
4.____ 11-15 years
5.___ 16-20 years
6.___ 21-30 years
7.___ over 30 years

3. Total time as a research/development manager (check one):

1.____ 0-2 years
2.____ 3-5 years
3.____ 6-10 years
4.____ 11-15 years
5.___ 16-20
6.___ 21-30 years
7.___ over 30 years
8.___ not applicable

4. Your age (check one):

1.____ under 26 years
2.____ 26-30 years
3.____ 31-34 years
4.____ 35 39 years
5.____ 40-44 years
6.___ 45-49 years
7.___ 50-54 years
8.___ 55-59 years
9.___ over 59 years

5. Formal education (check highest completed):

1.____ Some College
2.____ College Degree
3.____ Some graduate work
4.____ Masters level degree
5.____ Work beyond Masters
6.____ Doctorate
7.____ Post Doctorate
8.____ No college

6. In what year did you receive your last degree?

_____(fill in)

7. How long since you last attended a professional development course?

1.____ 1 year
2.____ 2 years
3.____ 3 years
4.____ 4 years
5.____ 5 years
6.____ over 5 years

8. How many professional conferences did you attend last year?

1.____ 0
2.____ 1
3.____ 2
4.____ 3
5.____ Greater than 3

9. How many papers have you published?

1.____ 0
2.____ 1-5
3.____ 6-10
4.____ 11-15
5.____ 16-20
6.____ over 20

10. How many patents have you received?

1.____ Not applicable
2.____ (fill in)

2

11. Do you think your present job is preparing you to assume future positions of greater responsibility?

A. Definitely no
B. Probably no
C. Undecided
D. Probably yes
E. Definitely yes

12. PERSONAL GROWTH: To be able to develop individual capacities; education/training; making full use of my abilities; the chance to further my potential.

To what degree are you satisfied with the PERSONAL GROWTH aspects of your current life? (Select one of the seven points.)

1....2....3....4....5....6....7
Highly Dissatisfied — Neutral — Highly Satisfied

13. Present yearly income from present position (check one):

1.____ Under $11,999
2.____ $12,000 to $14,999
3.____ $15,000 to $19,999
4.____ $20,000 to $24,999
5.____ $25,000 to $29,999
6.____ $30,000 to $36,000

14. ECONOMIC STANDARD: Satisfaction of basic human needs such as food, shelter, clothing; the ability to maintain an acceptable standard of living.

To what degree are you satisfied with the ECONOMIC STANDARD, as defined above, aspects of your current life? (Select one of the seven points on the satisfaction scale.)

1....2....3....4....5....6....7
Highly Dissatisfied — Neutral — Highly Satisfied

15. ECONOMIC SECURITY: Guaranteed employment; retirement benefits; insurance; protection for self and family.

To what degree are you satisfied with the ECONOMIC SECURITY, as defined above, of your current life? (Select one of the seven points.)

1....2....3....4....5....6....7

Highly Dissatisfied	Neutral	Highly Satisfied

16. FREE TIME: Amount, use, and scheduling of free time alone, or in voluntary associations with others; variety of activities engaged in.

To what degree are you satisfied with the FREE TIME aspects of your current life? (Select one of the seven points.)

1....2....3....4....5....6....7

Highly Dissatisfied	Neutral	Highly Satisfied

17. Choose the ONE of the following statements which best tells how well you like your job. Place a check mark in front of that statement.

1._____I hate it.

2._____I dislike it.

3._____I don't like it.

4._____I am indifferent to it.

5._____I like it.

6._____I am enthusiastic about it.

7._____I love it.

18. Check one of the following to show HOW MUCH OF THE TIME you feel satisfied with your job.

_____1. All the time.

_____2. Most of the time

_____3. A good deal of the time.

_____ 4. About half of the time.

_____ 5. Occasionally.

_____ 6. Seldom.

_____ 7. Never.

19. Check the ONE of the following which best tells how you feel about changing your job:

1._____ I would quit this job at once if I could get anything else to do.

2._____ I would take almost any other job in which I could earn as much as I am earning now.

3._____ I would like to change both my job and my occupation.

4._____ I would like to exchange my present job for another job in the same career field.

5._____ *I am not eager to change my job, but I would do so* if I could get a better job.

6._____ I cannot think of any jobs for which I would exchange.

7._____ I would not exchange my job for any other.

20. Check ONE of the following to show how you think you compare with other people.

1._____ No one likes his job better than I like mine.

2._____ I like my job much better than most people like theirs.

3._____ I like my job better than most people like theirs.

4._____ I like my job about as well as most people like theirs.

5._____ I dislike my job more than most people dislike theirs.

6._____ I dislike my job much more than most people dislike theirs.

7._____ No one dislikes his job more than I dislike mine.

5

21. How often are you given feedback from your supervisor about your job performance?

A. Never
B. Seldom
C. Sometimes
D. Frequently
E. Very frequently

22. How often do you and your supervisor get together to set your personal performance objectives?

A. Never
B. Seldom
C. Sometimes
D. Frequently
E. Very Frequently

23. WORK: Doing work that is personally meaningful and important; pride in your work, job satisfaction; recognition for my efforts and my accomplishments on the job.

To what degree are you satisfied with the WORK aspects of your current life? (Select one of the seven points.)

1....2....3....4....5....6....7

Highly Dissatisfied — Neutral — Highly Satisfied

24. LEADERSHIP/SUPERVISION: Has my interests and that of the Air Force at heart; keeps me informed; approachable and helpful rather than critical; good knowledge of the job.

To what degree are you satisfied with the LEADERSHIP/SUPERVISION aspects of your current life? (Select one of the seven points.)

1....2....3....4....5....6....7

Highly Dissatisfied — Neutral — Highly Satisfied

25. Are you given the freedom you need to do your job well?

A. Never
B. Seldom
C. Sometimes
D. Often
E. Always

26. Is your present position scientist, engineer, or manager?

1. Scientist

2. Engineer

3. Manager

27. How long have you been in your present position? (Check one)

1. _____ under 1 year
2. _____ 1-3 years
3. _____ 4-5 years
4. ____ 6-10 years
5. ____ over 10 years

28. If employee of the Federal Government, list civil service grade.

A. not applicable
B. GS-7
C. GS-9
D. GS-11
E. GS-12
F. GS-13
G. GS-14
H. GS-15
I. above GS-15

29. Is your work primarily in the area of basic research, applied research, or development?

A. Basic Research
B. Applied Research
C. Development

30. How many years have you been employed by the Government?

A. 0-2 years

B. 3-5 years

C. 6-10 years

D. 11-15 years

E. 21-30 years

F. 21-30 years

G. over 30 years

31. PERSONAL STANDING: To be treated with respect; prestige; dignity; reputation; status.

To what degree are you satisfied with the PERSONAL STANDING aspects of your life? (Select one of the seven points

1....2....3....4....5....6....7

Highly Dissatisfied		Neutral				Highly Satisfied

32. How long have you lived in the Dayton Area?

_____(fill in)

33. Are you currently a member of a union?

A. Yes

B. No

34. Have you ever belonged to a union?

A. No

B. Yes, and it was advantageous

C. Yes, but it was neither advantageous nor disadvantageous.

D. Yes, and it was disadvantageous.

35. Do any of your friends belong to a union?

A. No

B. Yes, and overall they feel union membership is advantageous

C. Yes, but overall their feelings about union membership are mixed

D. Yes, and overall they feel union membership is disadvantageous

36. Were (or are) either of your parents members of a labor union?

A. No

B. Yes, and it was/is advantageous

C. Yes, but it was/is neither advantageous or disadvantageous

D. Yes, and it was/is disadvantageous.

9

37. Currently, federal civilian employee unions have the right to strike.

A. True
B. False
C. Don't know

38. Federal civilian employees belonging to a work unit represented by a recognized union are covered by the union contract even though they may not be members of the union.

A. True
B. False
C. Don't know

39. Currently, a supervisor has the right to know which of his federal civilian employees belong to a union.

A. True
B. False
C. Don't know

40. I believe that Government employees' unions:

A. Significantly improve relations between management and the employees.

B. Somewhat improve relations between management and the employees.

C. Have little or no impact on relations between management and the employees.

D. Have a negative impact on relations between management and the employees.

E. Seriously impair relations between management and the employees.

41. Unions obtain more benefits for employees than would be obtained without them.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

42. Membership in a union increases a person's professional status.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

43. If white collar and professional employees were represented by Federal employee unions, organizational effectiveness would be:

A. Significantly improved
B. Improved
C. Unaffected
D. Decreased
E. Significantly decreased

44. Government employees, or their elected representatives (such as local Federal employee union officials) should be consulted by management on matters concerning personnel policies and working conditions.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

45. Union representation insures that employees are treated with dignity as individuals.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

46. The presence of Federal employee union representing white collar and professional workers would have what kind of an impact on employee-management relations?

A. Relations would be extremely antagonistic.
B. Relations would be somewhat antagonistic.
C. There would be no change in employee-management relations.
D. Relations would be somewhat improved.
E. Relations would be significantly improved.

47. The promotion system is fair.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

48. Over the past few years working conditions have:

A. Deteriorated significantly
B. Deteriorated somewhat
C. Pretty much remained the same
D. Improved somewhat
E. Imporved significantly

49. In my organizational unit I have the opportunity to influence major decisions.

A. To a considerable degree.
B. To some degree.
C. Somewhat.
D. I don't have much influence.
E. I have no influence whatsoever.

50. Compared to individuals with similar education and training working in industry, my salary is:

A. Considerably higher.
B. Somewhat higher.
C. About the same.
D. Somewhat lower.
E. Considerably lower.

51. Strikes can be a legitimate means of collective action and should be permitted for Government employees in non-critical jobs.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

52. The promotion system is effective (i.e., the right/most qualified person is generally promoted.)

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

53. My formal supervisor treats all employees fairly.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

54. I am given credit for work I have done.

A. Never
B. Infrequently
C. Sometimes
D. Most of the time.
E. All of the time.

55. Overall the management of my organization is competent and effective.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

56. Union representation at my organization would help prevent a major reduction in force.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

57. Unions have been successful in aiding other professional employees.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

58. Professional employees would benefit from larger salary increase if they were represented by a union.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

59. The benefits, economic and otherwise, obtained from belonging to a union more than compensate for the monthly dues (approximately $5 per month.)

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

60. Union leaders generally act in the best interests of union members.

A. Strongly disagree
B. Disagree
C. Inclined to disagree
D. Undecided
E. Inclined to agree
F. Agree
G. Strongly agree

14

61. It has been said that unions have tended to emphasize seniority as the most important consideration for advancement; such a practive would have the following effect on my organization:

A. It would greatly improve morale.
B. It would cause some improvement in morale.
C. It would have no impact on morale.
D. It would have a negative impact on morale.
E. It would have a disasterous impact on morale.

62. If a union were elected by members of my organization to represent and bargain for professional employees, I would join.

A. I strongly disagree
B. I disagree
C. No opinion
D. I agree
E. I strongly agree

63. Once unions enter an organization, they tend to gain an excessive amount of power.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agreee

64. A union can solve problems which an individual, on his own, would be unable to solve.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

65. If a union were recognized as the sole bargaining agent for my organization, its members would attempt to force other employees to join against their will.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

15

66. In the public sector, union lobbying efforts are more effective than bargaining directly with management.

A. Strongly agree
B. Agree
C. No opinion
D. Disagree
E. Strongly disagree

Adequate safeguards exist for the individual employed by the Government; there is no need for Federal employee unions: (Refer this to questions 67 and 68 only.)

67. To represent Government employee interests in Congress through lobbying.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

68. To help resolve disputes and look after employee interests through direct negotiation with the Air Force.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

69. If an organization of federally employed professionals (engineers and/or scientists) was formed to represent the interests of this group (i.e., lobbying for pay increases, presenting grievances, etc.), I would join.

A. Strongly disagree
B. Disagree
C. No opinion
D. Agree
E. Strongly agree

APPENDIX B

SURVAN Printout

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
CIVILIAN PROFESSIONAL EMPLOYEES TOWARDS UNIONIZATION
FINAL DATA - RUN 11 AUGUST 1976

1. NUMBER OF YEARS WITH THE ORGANIZATION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. 0-2 YEARS	140	20.5	IXXXXXXXXX				
2. 3-5 YEARS	140	20.5	IXXXXXXXXX				
3. 6-10 YEARS	97	14.2	IXXXXXX				
4. 11-15 YEARS	91	13.3	IXXXXXX				
5. 16-20 YEARS	76	11.1	IXXXXX				
6. 21-30 YEARS	98	14.4	IXXXXXX				
7. OVER 30 YEARS	40	5.9	IXXX				

Mean (M) = 3.406
Standard Deviation (v) = 1.918

2. TOTAL TIME AS A RESEARCH/DEVELOPMENT SCIENTIST OR ENGINEER	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. 0-2 YEARS	117	17.7	IXXXXXXXX				
2. 3-5 YEARS	103	15.6	IXXXXXXX				
3. 6-10 YEARS	121	18.3	IXXXXXXXX				
4. 11-15 YEARS	105	15.9	IXXXXXXX				
5. 16-20 YEARS	84	12.7	IXXXXXX				
6. 21-30 YEARS	103	15.6	IXXXXXXX				
7. OVER 30 YEARS	27	4.1	IXX				

M = 3.535
v = 1.820

3. TOTAL TIME AS A RESEARCH/DEVELOPMENT MANAGER	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. 0-2 YEARS	296	45.8	IXXXXXXXXXXXXXXXXXX				
2. 3-5 YEARS	60	9.3	IXXXX				
3. 6-10 YEARS	46	7.1	IXXX				
4. 11-15 YEARS	35	5.4	IXXX				
5. 16-20 YEARS	22	3.4	IXX				
6. 21-30 YEARS	21	3.3	IXX				
7. OVER 30 YEARS	2	.3	IX				
8. NOT APPLICABLE	164	25.4	IXXXXXXXXXX				

M = 3.492
v = 2.928

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
CIVILIAN PROFESSIONAL EMPLOYEES TOWARDS UNIONIZATION
FINAL DATA - RUN 11 AUGUST 1976

4. YOUR AGE

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. UNDER 26 YEARS	84	12.3	IXXXXX IXXXXX				
2. 26-30 YEARS	117	17.1	IXXXXXXX IXXXXXXX				
3. 31-34 YEARS	72	10.5	IXXXXX IXXXXX				
4. 35-39 YEARS	76	11.1	IXXXXX IXXXXX		M = 4.457 v = 2.395		
5. 40-44 YEARS	81	11.9	IXXXXX IXXXXX				
6. 45-49 YEARS	71	10.4	IXXXXX IXXXXX				
7. 50-54 YEARS	105	15.4	IXXXXXXX IXXXXXXX				
8. 55-59 YEARS	53	7.8	IXXXX IXXXX				
9. OVER 59 YEARS	24	3.5	IXX IXX				

5. FORMAL EDUCATION

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. SOME COLLEGE	85	12.5	IXXXXX IXXXXX				
2. COLLEGE DEGREE	159	23.4	IXXXXXXXXXX IXXXXXXXXXX		M = 3.219		
3. SOME GRADUATE WORK	224	32.9	IXXXXXXXXXXXXXX IXXXXXXXXXXXXXX		v = 1.716		
4. MASTERS LEVEL DEGREE	87	12.8	IXXXXXX IXXXXXX				
5. WORK BEYOND MASTERS	59	8.7	IXXXX IXXXX				
6. DOCTORATE	25	3.7	IXX IXX				
7. POST DOCTORATE	7	1.0	IX IX				
8. NO COLLEGE	34	5.0	IXX IXX				

6. IN WHAT YEAR DID YOU RECEIVE YOUR LAST DEGREE

NO. OF RESPONSES: 683 MEAN: ~~62.10~~ 64.575 STANDARD DEVIATION: ~~27.18~~ 10.418 SMALLEST VALUE: 8 LARGEST VALUE: ~~76~~ 32

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
CIVILIAN PROFESSIONAL EMPLOYEES TOWARDS UNIONIZATION
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7. HOW LONG SINCE YOU LAST ATTENDED A PROFESSIONAL DEVELOPMENT COURSE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. 1 YEAR	382	58.1	IXXXXXXXXXXXXXXXXXXXXXXXX
2. 2 YEARS	87	13.2	IXXXXXX
3. 3 YEARS	48	7.3	IXXX
4. 4 YEARS	28	4.3	IXX
5. 5 YEARS	23	3.5	IXX
6. OVER 5 YEARS	89	13.5	IXXXXXX

M = 2.224
v = 1.806

8. HOW MANY PROFESSIONAL CONFERENCES DID YOU ATTEND LAST YEAR	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. 0	337	50.2	IXXXXXXXXXXXXXXXXXXXXX
2. 1	173	25.8	IXXXXXXXXXXX
3. 2	97	14.5	IXXXXXX
4. 3	29	4.3	IXX
5. GREATER THAN 3	35	5.2	IXXX

M = 1.885
v = 1.130

9. HOW MANY PAPERS HAVE YOU PUBLISHED	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. 0	354	52.8	IXXXXXXXXXXXXXXXXXXXXXX
2. 1-5	222	33.1	IXXXXXXXXXXXXXX
3. 6-10	38	5.7	IXXX
4. 11-15	24	3.6	IXX
5. 16-20	13	1.9	IX
6. OVER 20	19	2.8	IXX

M = 1.772
v = 1.143

10. HOW MANY PATENTS HAVE YOU RECEIVED	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. NOT APPLICABLE	620	93.1	IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
2. (FILL IN)	46	6.9	IXXX

M = 1.069
v = 0.254

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
CIVILIAN PROFESSIONAL EMPLOYEES TOWARDS UNIONIZATION
FINAL DATA - RUN 11 AUGUST 1976

11. DO YOU THINK YOUR PRESENT JOB IS PREPARING YOU TO ASSUME FUTURE POSITION OF GREATER RESPONSIBILITY	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. DEFINITELY NO	82	12.1	IXXXXX IXXXXX				
B. PROBABLY NO	130	19.2	IXXXXXXXX IXXXXXXXX		M = 3.387		
C. UNDECIDED	56	8.3	IXXXX IXXXX		v = 1.336		
D. PROBABLY YES	270	39.8	IXXXXXXXXXXXXXXX IXXXXXXXXXXXXXXX				
E. DEFINETLY YES	140	20.6	IXXXXXXXXX IXXXXXXXXX				

12. PERSONAL GROWTH: TO BE ABLE TO DEVELOP INDIVIDUAL CAPACITIES. TO WHAT DEGREE ARE YOU SATISFIED	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. HIGHLY DISSATISFIED	32	4.7	IXX IXX				
2.	51	7.5	IXXX IXXX		M = 4.495		
3.	109	16.0	IXXXXXXX IXXXXXXX		v = 1.558		
4. NEUTRAL	90	13.2	IXXXXXX IXXXXXX				
5.	195	28.6	IXXXXXXXXXXX IXXXXXXXXXXX				
6.	163	23.9	IXXXXXXXXX IXXXXXXXXX				
7. HIGHLY SATISFIED	41	6.0	IXXX IXXX				

13. PRESENT YEARLY INCOME FROM PRESENT POSITION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. UNDER $11,999	12	1.8	IX IX				
2. $12,000 TO $14,999	140	20.6	IXXXXXXXXX IXXXXXXXXX		M = 3.835		
3. $15,000 TO $19,999	130	19.1	IXXXXXXXX IXXXXXXXX		v = 1.371		
4. $20,000 TO $24,999	145	21.3	IXXXXXXXXX IXXXXXXXXX				
5. $25,000 TO $29,999	172	25.3	IXXXXXXXXXX IXXXXXXXXXX				
6. $30,000 TO $36,000	81	11.9	IXXXXX IXXXXX				

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
CIVILIAN PROFESSIONAL EMPLOYEES TOWARDS UNIONIZATION
FINAL DATA - RUN 11 AUGUST 1976

14. ECONOMIC STANDARD: SATISFACTION OF BASIC HUMAN NEEDS ETC. TO WHAT DEGREE ARE YOU SATISFIED WITH THE ECONOMIC STANDARD.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. HIGHLY DISSATISFIED	11	1.6	IX				
			IX				
2.	37	5.4	IXXX				
			IXXX		M = 5.028		
3.	64	9.4	IXXXX				
			IXXXX		v = 1.425		
4. NEUTRAL	78	11.4	IXXXXX				
			IXXXXX				
5.	194	28.4	IXXXXXXXXXXX				
			IXXXXXXXXXXX				
6.	218	31.9	IXXXXXXXXXXXX				
			IXXXXXXXXXXXX				
7. HIGHLY SATISFIED	81	11.9	IXXXXX				
			IXXXXX				

15. ECONOMIC SECURITY: GUARANTEED EMPLOYMENT; RETIREMENT BENEFITS ETC. TO WHAT DEGREE ARE YOU SATISFIED WITH THE ECONOMIC SECURITY.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. HIGHLY DISSATISFIED	11	1.6	IX				
			IX				
2.	24	3.5	IXX				
			IXX		M = 5.184		
3.	59	8.7	IXXXX				
			IXXXX		v = 1.399		
4. NEUTRAL	79	11.6	IXXXXX				
			IXXXXX				
5.	172	25.3	IXXXXXXXXXX				
			IXXXXXXXXXX				
6.	232	34.1	IXXXXXXXXXXXX				
			IXXXXXXXXXXXX				
7. HIGHLY SATISFIED	103	15.1	IXXXXXXX				
			IXXXXXXX				

16. FREE TIME: AMOUNT, USE, AND SCHEDULING OF FREE TIME ETC. TO WHAT DEGREE ARE YOU SATISFIED WITH THE FREE TIME.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. HIGHLY DISSATISFIED	4	.6	IX				
			IX				
2.	32	4.7	IXX				
			IXX		M = 5.068		
3.	69	10.1	IXXXXX				
			IXXXXX		v = 1.376		
4. NEUTRAL	96	14.1	IXXXXXX				
			IXXXXXX				
5.	173	25.4	IXXXXXXXXXX				
			IXXXXXXXXXX				
6.	220	32.4	IXXXXXXXXXXX				
			IXXXXXXXXXXX				
7. HIGHLY SATISFIED	86	12.6	IXXXXXX				
			IXXXXXX				

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
CIVILIAN PROFESSIONAL EMPLOYEES TOWARDS UNIONIZATION
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17. CHOOSE THE ONE OF THE FOLLOWING STATEMENTS WHICH BEST TELLS HOW WELL YOU LIKE YOUR JOB.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. I HATE IT.	2	.3	IX				
2. I DISLIKE IT	24	3.5	IXX				
3. I DON'T LIKE IT.	36	5.3	IXXX		M = 5.063		
4. I AM INDIFFERENT TO IT.	61	8.9	IXXXX		v = 1.056		
5. I LIKE IT.	331	48.5	IXXXXXXXXXXXXXXXXXXX				
6. I AM ENTHUSIASTIC ABOUT IT.	202	29.6	IXXXXXXXXXXX				
7. I LOVE IT.	27	4.0	IXX				

18. HOW MUCH OF THE TIME DO YOU FEEL SATISFIED WITH YOUR JOB.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. ALL THE TIME	34	5.0	IXX				
2. MOST OF THE TIME	304	44.5	IXXXXXXXXXXXXXXXXX				
3. A GOOD DEAL OF THE TIME	144	21.1	IXXXXXXXXX		M = 2.949		
4. ABOUT HALF OF THE TIME	96	14.1	IXXXXXX		v = 1.279		
5. OCCASIONALLY	77	11.3	IXXXXX				
6. SELDOM	25	3.7	IXX				
7. NEVER	3	.4	IX				

19. CHECK THE ONE OF THE FOLLOWING WHICH BEST TELLS HOW YOU FEEL ABOUT CHANGING YOUR JOB	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. QUIT JOB AT ONCE IF I COULD GET ANYTHING ELSE	5	.7	IX				
2. TAKE ALMOST ANY OTHER JOB IF EARN AS MUCH AS NOW	12	1.8	IX				
3. LIKE TO CHANGE JOB AND OCCUPATION	48	7.0	IXXX		M = 4.815		
4. EXCHANGE PRESENT JOB FOR ANOTHER IN SAME CAREER FIELD	94	13.8	IXXXXXX		v = 0.938		
5. NOT EAGER TO CHANGE JOBS UNLESS COULD GET A BETTER JOB	416	61.1	IXXXXXXXXXXXXXXXXXXXXXXXX				
6. CANNOT THINK OF ANY JOBS I WOULD EXCHANGE WITH	92	13.5	IXXXXXX				
7. I WOULD NOT EXCHANGE MY JOB FOR ANY OTHER.	14	2.1	IX				

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20. CHECK ONE OF THE FOLLOWING TO SHOW HOW YOU THINK YOU COMPARE WITH OTHER PEOPLE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. NO ONE LIKES HIS JOB BETTER THAN I LIKE MINE	7	1.0	IX
2. I LIKE MY JOB MUCH BETTER THAN MOST PEOPLE LIKE THEIRS.	95	14.0	IXXXXXX
3. I LIKE MY JOB BETTER THAN MOST PEOPLE LIKE THEIRS	255	37.5	IXXXXXXXXXXXXXX
4. I LIKE MY JOB ABOUT AS WELL AS MOST PEOPLE LIKE THEIRS.	274	40.3	IXXXXXXXXXXXXXXXX
5. I DISLIKE MY JOB MORE THAN MOST PEOPLE DISLIKE THEIRS.	44	6.5	IXXX
6. I DISLIKE MY JOB MUCH MORE THAN MOST PEOPLE DISLIKE THEIRS	5	.7	IX
7. NO ONE DISLIKES HIS JOB MORE THAN I DISLIKE MINE	0	0.0	I

M = 3.394
v = 0.689

21. HOW OFTEN ARE YOU GIVEN FEEDBACK FROM YOUR SUPERVISOR ABOUT YOUR JOB PERFORMANCE.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. NEVER	49	7.2	IXXX
B. SELDOM	232	34.2	IXXXXXXXXXXXXX
C. SOMETIMES	270	39.8	IXXXXXXXXXXXXXXX
D. FREQUENTLY	120	17.7	IXXXXXXXX
E. VERY FREQUENTLY	8	1.2	IX

M = 2.714
v = 0.880

22. HOW OFTEN DO YOU AND YOUR SUPERISOR GET TOGETHER TO SET YOUR PERSONAL PERFORMANCE OBJECTIVES	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. NEVER	109	16.1	IXXXXXXX
B. SELDOM	295	43.4	IXXXXXXXXXXXXXXXXX
C. SOMETIMES	225	33.1	IXXXXXXXXXXXXXX
D. FREQUENTLY	46	6.8	IXXX
E. VERY FREQUENTLY	4	.6	IX

M = 2.324
v = 0.844

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23. WORK: DOING WORK THAT IS PERSONALLY MEANINGFUL AND IMPORTANT ETC. TO WHAT DEGREE ARE YOU SATISFIED WITH THE WORK.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. HIGHLY DISSATISFIED	20	2.9	IXX				
			IXX				
2.	52	7.6	IXXXX				
			IXXXX				
3.	87	12.8	IXXXXXX		M = 4.649		
			IXXXXXX		v = 1.485		
4. NEUTRAL	97	14.3	IXXXXXX				
			IXXXXXX				
5.	196	28.8	IXXXXXXXXXXX				
			IXXXXXXXXXXX				
6.	188	27.6	IXXXXXXXXXXX				
			IXXXXXXXXXXX				
7. HIGHLY SATISFIED	40	5.9	IXXX				
			IXXX				

24. LEADERSHIP/SUPERVISION: HAS MY INTERST AND THAT OF THE AF AT HEART. TO WHAT DEGREE ARE YOU SATISFIED WITH THE LEADERSHIP/SUPERVISION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. HIGHLY DISSATISFIED	43	6.3	IXXX				
			IXXX				
2.	78	11.5	IXXXXX				
			IXXXXX		M = 4.250		
3.	96	14.1	IXXXXXX				
			IXXXXXX		v = 1.617		
4. NEUTRAL	118	17.3	IXXXXXXX				
			IXXXXXXX				
5.	173	25.4	IXXXXXXXXXX				
			IXXXXXXXXXX				
6.	141	20.7	IXXXXXXXXX				
			IXXXXXXXXX				
7. HIGHLY SATISFIED	32	4.7	IXX				
			IXX				

25. ARE YOU GIVEN THE FREEDOM YOU NEED TO DO YOUR JOB WELL	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. NEVER	7	1.0	IX				
			IX				
B. SELDOM	42	6.2	IXXX				
			IXXX		M = 3.968		
C. SOMETIMES	113	16.6	IXXXXXXX				
			IXXXXXXX		v = 0.891		
D. OFTEN	322	47.4	IXXXXXXXXXXXXXXXXXXX				
			IXXXXXXXXXXXXXXXXXXX				
E. ALWAYS	196	28.8	IXXXXXXXXXXX				
			IXXXXXXXXXXX				

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26. IS YOUR PRESENT POSITION SCIENTIST, ENGINEER, OR MANAGER	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. SCIENTIST	33	5.2	IXXX				
			IXXX				M = 2.150
2. ENGINEER	476	74.6	IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				
			IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				v = 0.481
3. MANAGER	129	20.2	IXXXXXXXXX				
			IXXXXXXXXX				

27. HOW LONG HAVE YOU BEEN IN YOUR PRESENT POSITION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. UNDER 1 YEAR	110	16.1	IXXXXXXX				
			IXXXXXXX		M = 2.918		
2. 1-3 YEARS	229	33.6	IXXXXXXXXXXXXX				
			IXXXXXXXXXXXXX		v = 1.412		
3. 4-5 YEARS	100	14.7	IXXXXXX				
			IXXXXXX				
4. 6-10 YEARS	93	13.6	IXXXXXX				
			IXXXXXX				
5. OVER 10 YEARS	150	22.0	IXXXXXXXXX				
			IXXXXXXXXX				

28. IF EMPLOYEE OF THE FEDERAL GOVERNMENT, LIST CIVIL SERVICE GRADE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. NOT APPLICABLE	3	.4	IX				
			IX				
B. GS-7	59	8.7	IXXXX				
			IXXXX		M = 4.823		
C. GS-9	128	18.9	IXXXXXXXX				
			IXXXXXXXX		v = 1.661		
D. GS-11	73	10.8	IXXXXX				
			IXXXXX				
E. GS-12	146	21.5	IXXXXXXXXX				
			IXXXXXXXXX				
F. GS-13	172	25.4	IXXXXXXXXXXX				
			IXXXXXXXXXXX				
G. GS-14	67	9.9	IXXXX				
			IXXXX				
H. GS-15	28	4.1	IXX				
			IXX				
I. ABOVE GS-15	2	.3	IX				
			IX				

29. IS YOUR WORK PRIMARILY IN THE AREA OF BASIC RESEARCH, APPLIED RESEARCH, OR DEVELOPMENT	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. BASIC RESEARCH	31	4.7	IXX				
			IXX		M = 2.621		
B. APPLIED RESEARCH	190	28.7	IXXXXXXXXXXX				
			IXXXXXXXXXXX		v = 0.576		
C. DEVELOPMENT	441	66.6	IXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				
			IXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				

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30. HOW MANY YEARS HAVE YOU BEEN EMPLOYED BY THE GOVERNMENT

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. 0-2 YEARS	101	14.9	IXXXXXX IXXXXXX				
2. 3-5 YEARS	111	16.3	IXXXXXXX IXXXXXXX				
3. 6-10 YEARS	88	12.9	IXXXXXX IXXXXXX				
4. 11-15 YEARS	104	15.3	IXXXXXXX IXXXXXXX				
5. 16-20 YEARS	111	16.3	IXXXXXXX IXXXXXXX				
6. 21-30 YEARS	96	14.1	IXXXXXX IXXXXXX				
7. OVER 30 YEARS	69	10.1	IXXXXX IXXXXX				

M = 3.849

v = 1.935

31. PERSONAL STANDING: TO BE TREATED WITH RESPECT: PRESTIGE: ETC
TO WHAT DEGREE ARE YOU SATISFIED WITH YOUR PERSONAL STANDING

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. HIGHLY DISSATISFIED	16	2.4	IX IX				
2.	29	4.3	IXX IXX				
3.	58	8.5	IXXXX IXXXX				
4. NEUTRAL	95	14.0	IXXXXXX IXXXXXX				
5.	211	31.0	IXXXXXXXXXXXXX IXXXXXXXXXXXXX				
6.	233	34.3	IXXXXXXXXXXXXXX IXXXXXXXXXXXXXX				
7. HIGHLY SATISFIED	38	5.6	IXXX IXXX				

M = 4.922

v = 1.343

32. HOW LONG HAVE YOU LIVED IN THE DAYTON AREA

NO. OF RESPONSES: 683 MEAN: 18.105 STANDARD DEVIATION: 13.064 SMALLEST VALUE: 1 LARGEST VALUE: 60

33. ARE YOU CURRENTLY A MEMBER OF A UNION

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. YES	2	.3	IX IX				
B. NO	677	99.7	IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX				

M = 1.997

v = 0.054

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34. HAVE YOU EVER BELONGED TO A UNION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. NO	473	69.9	IXXXXXXXXXXXXXXXXXXXXXXXXXXXX
B. YES, AND IT WAS ADVANTAGEOUS	57	8.4	IXXXX
C. YES, BUT IT WAS NEITHER ADVANTAGEOUS NOR DISADVANTAGEOUS	116	17.1	IXXXXXXX
D. YES, AND IT WAS DISADVANTAGEOUS	31	4.6	IXX

M = 1.564
v = 0.930

35. DO ANY OF YOUR FRIENDS BELONG TO A UNION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. NO	270	40.5	IXXXXXXXXXXXXXXXXX
B. YES, AND OVERALL THEY FEEL UNION MEMBERSHIP IS ADVANTAGEOUS	146	21.9	IXXXXXXXXX
C. YES BUT OVERALL THEIR FEELINGS ABOUT UNION MEMBERSHIP ARE MIXED	235	35.3	IXXXXXXXXXXXXXXX
D. YES, AND OVERALL THEY FEEL UNION MEMBERSHIP IS DISADVANTAGEOUS	15	2.3	IX

M = 1.992
v = 0.992

36. WERE (OR ARE) EITHER OF YOUR PARENTS MEMBERS OF A LABOR UNION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. NO	434	64.7	IXXXXXXXXXXXXXXXXXXXXXXXXXX
B. YES, AND OVERALL THEY FEEL UNION MEMBERSHIP IS ADVANTAGEOUS	140	20.9	IXXXXXXXXX
C. YES BUT OVERALL THEIR FEELINGS ABOUT UNION MEMBERSHIP ARE MIXED	76	11.3	IXXXXX
D. YES, AND OVERALL THEY FEEL UNION MEMBERSHIP IS DISADVANTAGEOUS	21	3.1	IXX

M = 1.529
v = 0.815

37. CURRENTLY, FEDERAL CIVILIAN EMPLOYEE UNIONS HAVE THE RIGHT TO STRIKE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 0% 75% 100%
A. TRUE	17	2.5	IX
B. FALSE	475	70.3	IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
C. DON'T KNOW	184	27.2	IXXXXXXXXXXX

M = 2.247
v = 0.487

38. FEDERAL CIVILIAN EMPLOYEES WHO'S WORK UNIT IS UNIONIZED ARE COVERED BY UNION CONTRACT EVEN IF THEY ARE NOT UNION MEMBERS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. TRUE	288	42.8	IXXXXXXXXXXXXXXXXXX
B. FALSE	92	13.7	IXXXXXX
C. DON'T KNOW	293	43.5	IXXXXXXXXXXXXXXXXXX

M = 2.007
v = 0.930

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39. CURRENTLY, A SUPERVISOR HAS THE RIGHT TO KNOW WHICH OF HIS FEDERAL CIVILIAN EMPLOYEES BELONG TO A UNION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. TRUE	129	19.2	IXXXXXXXX IXXXXXXXX
B. FALSE	127	18.9	IXXXXXXXX IXXXXXXXX
C. DON'T KNOW	417	62.0	IXXXXXXXXXXXXXXXXXXXXXXXXX IXXXXXXXXXXXXXXXXXXXXXXXXX

M = 2.428
v = 0.793

40. I BELIEVE THAT GOVERNMENT EMPLOYEE UNIONS:	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. SIGNIFICANTLY IMPROVE RELATIONS BETWEEN MANAGEMENT AND EMPLOYEES	15	2.3	IX IX
B. SOMEWHAT IMPROVED RELATIONS BETWEEN MANAGEMENT AND EMPLOYEES	123	18.9	IXXXXXXXX IXXXXXXXX
C. LITTLE OR NO IMPACT BETWEEN MANAGEMENT AND EMPLOYEES	273	42.0	IXXXXXXXXXXXXXXXXX IXXXXXXXXXXXXXXXXX
D. NEGATIVE IMPACT ON RELATIONS BETWEEN MANAGEMENT AND EMPLOYEES	196	30.2	IXXXXXXXXXXXXX IXXXXXXXXXXXXX
E. SERIOUSLY IMPAIR RELATIONS BETWEEN MANAGEMENT AND EMPLOYEES	43	6.6	IXXX IXXX

M = 3.198
v = 0.900

41. UNIONS OBTAIN MORE BENEFITS FOR EMPLOYEES THAN WOULD BE OBTAINED WITHOUT THEM	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	75	11.1	IXXXXX IXXXXX
B. AGREE	318	47.2	IXXXXXXXXXXXXXXXXXX IXXXXXXXXXXXXXXXXXX
C. NO OPINION	136	20.2	IXXXXXXXXX IXXXXXXXXX
D. DISAGREE	116	17.2	IXXXXXXX IXXXXXXX
E. STRONGLY DISAGREE	29	4.3	IXX IXX

M = 2.564
v = 1.036

42. MEMBERSHIP IN A UNION INCREASES A PERSON'S PROFESSIONAL STATUS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	7	1.0	IX IX
B. AGREE	22	3.2	IXX IXX
C. NO OPINION	129	19.0	IXXXXXXXX IXXXXXXXX
D. DISAGREE	350	51.5	IXXXXXXXXXXXXXXXXXXXX IXXXXXXXXXXXXXXXXXXXX
E. STRONGLY DISAGREE	172	25.3	IXXXXXXXXXX IXXXXXXXXXX

M = 3.968
v = 0.815

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43. IF WHITE COLLAR AND PROFESSIONAL EMPLOYEES WERE REPRESENTED BY FEDERAL EMPLOYEE UNIONS, ORGANIZATIONAL EFFECTIVENESS WOULD BE:	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. SIGNIFICANTLY IMPROVED	7	1.1	IX
B. IMPROVED	84	12.7	IXXXXXX
C. UNAFFECTED	252	38.1	IXXXXXXXXXXXXXXXX
D. DECREASED	222	33.6	IXXXXXXXXXXXXXX
E. SIGNIFICANTLY DECREASED	96	14.5	IXXXXXX

M = 3.478
v = 0.927

44. GOVERNMENT EMPLOYEES OR THEIR REPS SHOULD BE CONSULTED BY MGTMNT ON MATTERS CONCERNING PERSONNEL POLICIES AND WORKING CONDITIONS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	97	14.3	IXXXXXX
B. AGREE	393	58.1	IXXXXXXXXXXXXXXXXXXXXXXXX
C. NO OPINION	109	16.1	IXXXXXXX
D. DISAGREE	60	8.9	IXXXX
E. STRONGLY DISAGREE	18	2.7	IXX

M = 2.275
v = 0.908

45. UNION REPRESENTATION INSURES THAT EMPLOYEES ARE TREATED WITH DIGNITY AS INDIVIDUALS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	84	12.4	IXXXXX
B. DISAGREE	307	45.1	IXXXXXXXXXXXXXXXXXX
C. NO OPINION	185	27.2	IXXXXXXXXXXX
D. AGREE	82	12.1	IXXXXX
E. STRONGLY AGREE	22	3.2	IXX

M = 2.487
v = 0.966

46. UNION REPRESENTING WHITE COLLAR/PROFESSIONAL WORKERS WOULD HAVE WHAT KIND OF IMPACT ON EMPLOYEE-MANAGEMENT RELATIONS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. RELATIONS WOULD BE EXTREMELY ANTAGONISTIC	41	6.3	IXXX
B. RELATIONS WOULD BE SOMEWHAT ANTAGONISTIC	355	54.6	IXXXXXXXXXXXXXXXXXXXXX
C. THERE WOULD BE NO CHANGE IN EMPLOYEE-MANAGEMENT RELATIONS	173	26.6	IXXXXXXXXXX
D. RELATIONS WOULD BE SOMEWHAT IMPROVED	73	11.2	IXXXXX
E. RELATIONS WOULD BE SIGNIFICANTLY IMPROVED	8	1.2	IX

M = 2.465
v = 0.821

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47. THE PROMOTION SYSTEM IS FAIR	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	83	12.2	IXXXXX
B. DISAGREE	232	34.2	IXXXXXXXXXXXXX
C. NO OPINION	113	16.7	IXXXXXXX
D. AGREE	240	35.4	IXXXXXXXXXXXXXX
E. STRONGLY AGREE	10	1.5	IX

M = 2.796
v = 1.098

48. OVER THE PAST FEW YEARS WORKING CONDITIONS HAVE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. DETERIORATED SIGNIFICANTLY	67	10.0	IXXXX
B. DETERIORATED SOMEWHAT	147	22.0	IXXXXXXXXX
C. PRETTY MUCH REMAINED THE SAME	321	48.1	IXXXXXXXXXXXXXXXXXXX
D. IMPROVED SOMEWHAT	112	16.8	IXXXXXXX
E. IMPROVED SIGNIFICANTLY	21	3.1	IXX

M = 2.815
v = 0.945

49. IN MY ORGANIZATIONAL UNIT I HAVE THE OPPORTUNITY TO INFLUENCE MAJOR DECISIONS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. TO A CONSIDERABLE DEGREE	87	12.8	IXXXXXX
B. TO SOME DEGREE	218	32.0	IXXXXXXXXXXXX
C. SOMEWHAT	165	24.2	IXXXXXXXXX
D. I DON'T HAVE MUCH INFLUENCE	149	21.9	IXXXXXXXXX
E. I HAVE NO INFLUENCE WHATSOEVER	62	9.1	IXXXX

M = 2.825
v = 1.117

50. COMPARED TO INDIVIDUALS WITH SIMILAR EDUCATION AND TRAINING WORKING IN INDUSTRY, MY SALARY IS:	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. CONSIDERABLY HIGHER	23	3.4	IXX
B. SOMEWHAT HIGHER	151	22.5	IXXXXXXXXX
C. ABOUT THE SAME	315	47.0	IXXXXXXXXXXXXXXXXXX
D. SOMEWHAT LOWER	155	23.1	IXXXXXXXXXX
E. CONSIDERABLY LOWER	26	3.9	IXX

M = 3.015
v = 0.866

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51. STRIKES CAN BE LEGIT. MEANS OF COLLECTIVE ACTION AND SHOULD BE PERMITTED FOR GOV'T EMPLOYEES IN NON-CRITICAL JOBS.

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	21	3.1	IXX
B. AGREE	100	14.8	IXXXXXX
C. NO OPINION	110	16.2	IXXXXXXX
D. DISAGREE	280	41.4	IXXXXXXXXXXXXXXXXX
E. STRONGLY DISAGREE	166	24.5	IXXXXXXXXXX

M = 3.698
v = 1.092

52. THE PROMOTION SYSTEM IS EFFECTIVE

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	88	13.0	IXXXXXX
B. DISAGREE	282	41.7	IXXXXXXXXXXXXXXXXX
C. NO OPINION	95	14.1	IXXXXXX
D. AGREE	198	29.3	IXXXXXXXXXXXX
E. STRONGLY AGREE	13	1.9	IX

M = 2.654
v = 1.091

53. MY FORMAL SUPERVISOR TREATS ALL EMPLOYEES FAIRLY

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	25	3.7	IXX
B. DISAGREE	76	11.2	IXXXXX
C. NO OPINION	77	11.3	IXXXXX
D. AGREE	385	56.7	IXXXXXXXXXXXXXXXXXXXXXXX
E. STRONGLY AGREE	116	17.1	IXXXXXXX

M = 3.723
v = 0.994

54. I AM GIVEN CREDIT FOR WORK I HAVE DONE

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. NEVER	11	1.6	IX
B. INFREQUENTLY	87	12.8	IXXXXXX
C. SOMETIMES	142	20.9	IXXXXXXXXX
D. MOST OF THE TIME	338	49.7	IXXXXXXXXXXXXXXXXXXX
E. ALL OF THE TIME	102	15.0	IXXXXXX

M = 3.637
v = 0.941

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55. OVERALL THE MANAGEMENT OF MY ORGANIZATION IS COMPETENT AND EFFECTIVE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	37	5.5	IXXX
B. AGREE	286	42.2	IXXXXXXXXXXXXXXXXX
C. NO OPINION	80	11.8	IXXXXX
D. DISAGREE	203	29.9	IXXXXXXXXXXXX
E. STRONGLY DISAGREE	72	10.6	IXXXXX

M = 2.981
v = 1.169

56. UNION REPRESENTATION AT MY ORGANIZATION WOULD HELP PREVENT A MAJOR REDUCTION IN FORCE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	123	18.1	IXXXXXXXX
B. DISAGREE	348	51.3	IXXXXXXXXXXXXXXXXXXXX
C. NO OPINION	154	22.7	IXXXXXXXXXX
D. AGREE	42	6.2	IXXX
E. STRONGLY AGREE	12	1.8	IX

M = 2.222
v = 0.875

57. UNIONS HAVE BEEN SUCCESSFUL IN AIDING OTHER PROFESSIONAL EMPLOYEES	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	56	8.2	IXXXX
B. DISAGREE	161	23.7	IXXXXXXXXXX
C. NO OPINION	333	49.0	IXXXXXXXXXXXXXXXXXXX
D. AGREE	117	17.2	IXXXXXXX
E. STRONGLY AGREE	13	1.9	IX

M = 2.809
v = 0.883

58. PROFESSIONAL EMPLOYEES WOULD BENEFIT FROM LARGER SALARY INCREASE IF THEY WERE REPRESENTED BY A UNION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	18	2.7	IXX
B. AGREE	136	20.1	IXXXXXXXXX
C. NO OPINION	192	28.4	IXXXXXXXXXXX
D. DISAGREE	271	40.1	IXXXXXXXXXXXXXXX
E. STRONGLY DISAGREE	59	8.7	IXXXX

M = 3.321
v = 0.978

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
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59. THE BENEFITS, ECONOMIC AND OTHERWISE, OBTAINED FROM BELONGING TO A UNION MORE THAN COMPENSATE FOR THE MONTHLY DUES.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. STRONGLY DISAGREE	102	15.1	IXXXXXX IXXXXXX		M = 2.563		
B. DISAGREE	233	34.4	IXXXXXXXXXXXXX IXXXXXXXXXXXXX		v = 1.003		
C. NO OPINION	215	31.8	IXXXXXXXXXXXX IXXXXXXXXXXXX				
D. AGREE	113	16.7	IXXXXXXX IXXXXXXX				
E. STRONGLY AGREE	14	2.1	IX IX				

60. UNION LEADERS GENERALLY ACT IN THE BEST INTERESTS OF UNION MEMBERS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. STRONGLY DISAGREE	105	15.4	IXXXXXXX IXXXXXXX		M = 3.272		
B. DISAGREE	113	16.6	IXXXXXXX IXXXXXXX		v = 1.521		
C. INCLINE TO DISAGREE	189	27.8	IXXXXXXXXXXXX IXXXXXXXXXXXX				
D. UNDECIDED	87	12.8	IXXXXXX IXXXXXX				
E. INCLINED TO AGREE	143	21.0	IXXXXXXXXX IXXXXXXXXX				
F. AGREE	37	5.4	IXXX IXXX				
G. STRONGLY AGREE	6	.9	IX IX				

61. UNIONS TENDED TO EMPHASIZE SENIORITY AS MOST IMPORTANT FOR ADVANCEMENT: THIS PRACTICE WOULD HAVE FOLLOWING EFFECT ON MY ORGANIZATION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. IT WOULD GREATLY IMPROVE MORALE	11	1.7	IX IX		M = 3.552		
B. IT WOULD CAUSE SOME IMPROVEMENT IN MORALE	71	10.7	IXXXXX IXXXXX		v = 0.872		
C. IT WOULD HAVE NO IMPACT ON MORALE	189	28.4	IXXXXXXXXXXXX IXXXXXXXXXXXX				
D. IT WOULD HAVE A NEGATIVE IMPACT ON MORALE	328	49.3	IXXXXXXXXXXXXXXXXXXXX IXXXXXXXXXXXXXXXXXXX				
E. IT WOULD HAVE A DISASTEROUS IMPACT ON MORALE	66	9.9	IXXXX IXXXX				

AD-A036 461 AIR FORCE INST OF TECH WRIGHT-PATTERSON AFB OHIO SCH--ETC F/G 5/10
THE ATTITUDES OF FEDERALLY EMPLOYED SCIENTISTS AND ENGINEERS: A--ETC(U)
DEC 76 R H AGNEW, R O JENNINGS

UNCLASSIFIED GSM/SM/76D-25 NL

3 OF 3
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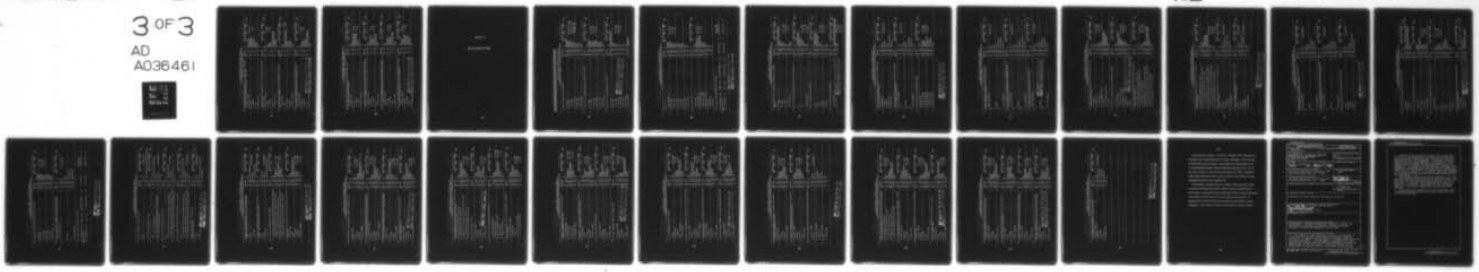

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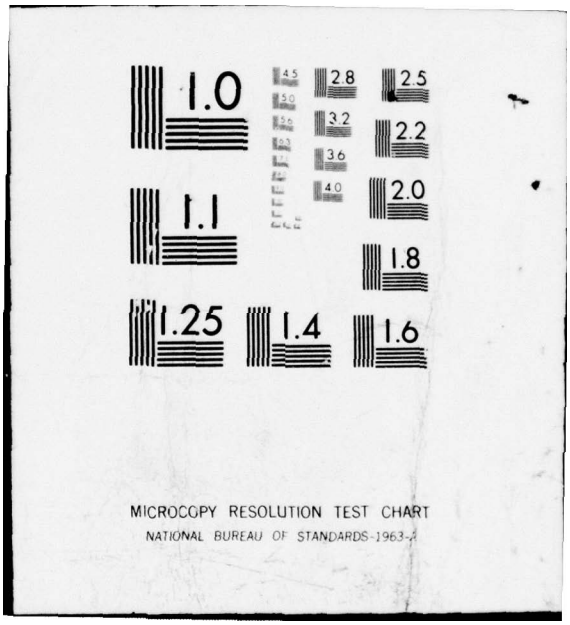
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NATIONAL BUREAU OF STANDARDS-1963-A

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
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62. IF A UNION WERE ELECTED BY MEMBERS OF MY ORGANIZATION TO REPRESENT AND BARGAIN FOR PROFESSIONAL EMPLOYEES, I WOULD JOIN.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	177	26.0	IXXXXXXXXXXX
B. DISAGREE	209	30.7	IXXXXXXXXXXXX M = 2.347
C. NO OPINION	187	27.5	IXXXXXXXXXXXXXX v = 1.060
D. AGREE	98	14.4	IXXXXXXXXXXX
E. STRONGLY AGREE	10	1.5	IXXXXXX
			IX

63. ONCE UNIONS ENTER AN ORGANIZATION, THEY TEND TO GAIN AN EXCESSIVE AMOUNT OF POWER	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	11	1.6	IX
B. DISAGREE	54	8.0	IXXXX M = 3.889
C. NO OPINION	101	14.9	IXXXXXX v = 0.921
D. AGREE	345	50.9	IXXXXXXXXXXXXXXXXXXXX
E. STRONGLY AGREE	167	24.6	IXXXXXXXXXX

64. A UNION CAN SOLVE PROBLEMS WHICH AN INDIVIDUAL, ON HIS OWN, WOULD BE UNABLE TO SOLVE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	44	6.5	IXXX
B. AGREE	373	54.9	IXXXXXXXXXXXXXXXXXXXX M = 2.583
C. NO OPINION	113	16.6	IXXXXXXX v = 0.992
D. DISAGREE	120	17.7	IXXXXXXXX
E. STRONGLY DISAGREE	29	4.3	IXX

65. IF A UNION WAS RECOGNIZED AS THE SOLE BARGAINING AGENT FOR MY ORGANIZATION, NONMEMBER EMPLOYEES WOULD BE FORCED TO JOIN.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	12	1.8	IX
B. DISAGREE	86	12.6	IXXXXXX M = 3.584
C. NO OPINION	152	22.4	IXXXXXXXXX v = 0.911
D. AGREE	353	51.9	IXXXXXXXXXXXXXXXXXXXX
E. STRONGLY AGREE	77	11.3	IXXXXX

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
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66. IN THE PUBLIC, UNION LOBBYING EFFORTS ARE MORE EFFECTIVE THAN BARGAINING DIRECTLY WITH MANAGEMENT

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. STRONGLY AGREE	31	4.6	IXX				
			IXX				
B. AGREE	270	40.0	IXXXXXXXXXXXXXXXX				
			IXXXXXXXXXXXXXXXX		M = 2.671		
C. NO OPINION	274	40.6	IXXXXXXXXXXXXXXXX				
			IXXXXXXXXXXXXXXXX		v = 0.818		
D. DISAGREE	90	13.3	IXXXXXX				
			IXXXXXX				
E. STRONGLY DISAGREE	10	1.5	IX				
			IX				

67. ADEQUATE SAFEGUARDS EXIST IN THE SYSTEM THAT THERE IS NO NEED FOR UNIONS TO REPRESENT GOV'T EMPLOYEES IN CONGRESS THRU LOBBYING

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. STRONGLY DISAGREE	39	5.7	IXXX				
			IXXX				
B. DISAGREE	212	31.2	IXXXXXXXXXXXXX				
			IXXXXXXXXXXXXX		M = 3.053		
C. NO OPINION	145	21.3	IXXXXXXXXX				
			IXXXXXXXXX		v = 1.069		
D. AGREE	242	35.6	IXXXXXXXXXXXXXX				
			IXXXXXXXXXXXXXX				
E. STRONGLY AGREE	42	6.2	IXXX				
			IXXX				

68. ADEQUATE SAFEGUARDS EXIST IN THE SYSTEM THAT THERE IS NO NEED FOR UNIONS TO RESOLVE DISPUTES AND LOOK AFTER EMPLOYEE INTERESTS

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. STRONGLY DISAGREE	28	4.1	IXX				
			IXX				
B. DISAGREE	169	24.9	IXXXXXXXXXX				
			IXXXXXXXXXX		M = 3.202		
C. NO OPINION	161	23.7	IXXXXXXXXXX				
			IXXXXXXXXXX		v = 1.1016		
D. AGREE	278	41.0	IXXXXXXXXXXXXXXXX				
			IXXXXXXXXXXXXXXXX				
E. STRONGLY AGREE	42	6.2	IXXX				
			IXXX				

69. IF AN ORGANIZATION OF FEDERALLY EMPLOYED PROFESSIONALS WAS FORMED TO REPRESENT THE INTEREST OF THIS GROUP I WOULD JOIN

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
A. STRONGLY DISAGREE	124	18.3	IXXXXXXXX				
			IXXXXXXXX		M = 2.591		
B. DISAGREE	207	30.5	IXXXXXXXXXXXX				
			IXXXXXXXXXXXX		v = 1.086		
C. NO OPINION	188	27.7	IXXXXXXXXXXX				
			IXXXXXXXXXXX				
D. AGREE	143	21.1	IXXXXXXXXX				
			IXXXXXXXXX				
E. STRONGLY AGREE	17	2.5	IX				
			IX				

APPENDIX C

Split-Bar SURVAN Printout

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
CIVILIAN PROFESSIONAL EMPLOYEES TOWARDS UNIONIZATION
"XXX" REPRESENTS 1974 SURVEY *** "AAA" REPRESENTS 1976 SURVEY

	RESPONSES NO.	%	0%	25%	50%	75%	100%
1. NUMBER OF YEARS WITH THE ORGANIZATION			I	I	I	I	I
1. 0-2 YEARS	151	27.6	IXXXXXXXXXXX				
	(122	21.1)	IAAAAAAAAA				
2. 3-5 YEARS	109	19.7	IXXXXXXX				
	(127	22.0)	IAAAAAAAAA				
3. 6-10 YEARS	87	15.9	IXXXXXXX				
	(78	13.5)	IAAAAAA				
4. 11-15 YEARS	90	16.5	IXXXXXXX				
	(78	13.5)	IAAAAAA				
5. 16-20 YEARS	48	8.8	IXXXX				
	(64	11.1)	IAAAAA				
6. 21-30 YEARS	45	8.2	IXXXX				
	(79	13.7)	IAAAAAA				
7. OVER 30 YEARS	18	3.3	IXX				
	(29	5.0)	IAAA				

MEAN (M) '74 = 2.9689
MEAN (M) '76 = 3.3258
T-TEST Significance Level (SL) = .001

	RESPONSES NO.	%	0%	25%	50%	75%	100%
2. TOTAL TIME AS A RESEARCH/DEVELOPMENT SCIENTIST OR ENGINEER			I	I	I	I	I
1. 0-2 YEARS	105	19.2	IXXXXXXXX				
	(101	17.6)	IAAAAAAAA				
2. 3-5 YEARS	90	16.5	IXXXXXXX				
	(94	16.4)	IAAAAAAA				
3. 6-10 YEARS	84	15.4	IXXXXXXX				
	(104	18.2)	IAAAAAAAA				
4. 11-15 YEARS	103	18.8	IXXXXXXXX				
	(86	15.0)	IAAAAAAA				
5. 16-20 YEARS	74	13.5	IXXXXXX				
	(71	12.4)	IAAAAA				
6. 21-30 YEARS	71	13.0	IXXXXXX				
	(90	15.7)	IAAAAAAA				
7. OVER 30 YEARS	20	3.7	IXX				
	(27	4.7)	IAA				

M '74 = 3.4461
M '76 = 3.5410
SL = .383

	RESPONSES NO.	%	0%	25%	50%	75%	100%
3. TOTAL TIME AS A RESEARCH/DEVELOPMENT MANAGER			I	I	I	I	I
1. 0-2 YEARS	269	51.1	IXXXXXXXXXXXXXXXXXXXX				
	(261	46.9)	IAAAAAAAAAAAAAAAAAAA				
2. 3-5 YEARS	43	8.2	IXXXX				
	(51	9.2)	IAAAA				
3. 6-10 YEARS	34	6.5	IXXX				
	(34	6.1)	IAAA				
4. 11-15 YEARS	22	4.2	IXX				
	(29	5.2)	IAAA				
5. 16-20 YEARS	9	1.7	IX				
	(19	3.4)	IAA				
6. 21-30 YEARS	9	1.7	IX				
	(18	3.2)	IAA				
7. OVER 30 YEARS	1	.2	IX				
	(1	.2)	IA				
8. NOT APPLICABLE	139	26.4	IXXXXXXXXXXX				
	(144	25.9)	IAAAAAAAAAAA				

M '74 = 3.3517
M '76 = 3.4883
SL = .449

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
CIVILIAN PROFESSIONAL EMPLOYEES TOWARDS UNIONIZATION
"XXX" REPRESENTS 1974 SURVEY *** "AAA" REPRESENTS 1976 SURVEY

4. YOUR AGE

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. UNDER 26 YEARS	97	17.8	IXXXXXXXX				
	(80	13.8)	IAAAAAA				
2. 26-30 YEARS	99	18.1	IXXXXXXXX				
	(102	17.6)	IAAAAAAAA				
3. 31-34 YEARS	68	12.5	IXXXXX				
	(64	11.1)	IAAAAA				
4. 35-39 YEARS	70	12.8	IXXXXXX				
	(66	11.4)	IAAAAA				
5. 40-44 YEARS	61	11.2	IXXXXX				
	(74	12.8)	IAAAAAA				
6. 45-49 YEARS	56	10.3	IXXXXX				
	(52	9.0)	IAAAA				
7. 50-54 YEARS	56	10.3	IXXXXX				
	(80	13.8)	IAAAAAA				
8. 55-59 YEARS	28	5.1	IXXX				
	(42	7.3)	IAAA				
9. OVER 59 YEARS	11	2.0	IX				
	(18	3.1)	IAA				

M '74 = 3.9103
M '76 = 4.2907
SL = .006

5. FORMAL EDUCATION

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. SOME COLLEGE	11	2.0	IX				
	(57	9.9)	IAAAA				
2. COLLEGE DEGREE	175	31.9	IXXXXXXXXXXXX				
	(137	23.8)	IAAAAAAAAA				
3. SOME GRADUATE WORK	203	37.0	IXXXXXXXXXXXXXX				
	(203	35.3)	IAAAAAAAAAAAAAA				
4. MASTERS LEVEL DEGREE	66	12.0	IXXXXX				
	(80	13.9)	IAAAAAA				
5. WORK BEYOND MASTERS	63	11.5	IXXXXX				
	(54	9.4)	IAAAA				
6. DOCTORATE	22	4.0	IXX				
	(22	3.8)	IAA				
7. POST DOCTORATE	9	1.6	IX				
	(7	1.2)	IA				
8. NO COLLEGE	0	0.0	I				
	(15	2.6)	IAA				

M '74 = 4.1767
M '76 = 3.9757
SL = .011

6. IN WHAT YEAR DID YOU RECEIVE YOUR LAST DEGREE

Data Not Usable

NO. OF RESPONSES: 550 MEAN: 0.00 STANDARD DEVIATION: 0.00 SMALLEST VALUE: 0 LARGEST VALUE: 0

SECOND SUBSAMPLE:

NO. OF RESPONSES: 578 MEAN: 55.57 STANDARD DEVIATION: 24.73 SMALLEST VALUE: 0 LARGEST VALUE: 76

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
CIVILIAN PROFESSIONAL EMPLOYEES TOWARDS UNIONIZATION
"XXX" REPRESENTS 1974 SURVEY *** "AAA" REPRESENTS 1976 SURVEY

7. HOW LONG SINCE YOU LAST ATTENDED A PROFESSIONAL DEVELOPMENT COURSE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. 1 YEAR	351	65.7	IXXXXXXXXXXXXXXXXXXXXXXXXX
	(341	66.5)	IAAAAAAAAAAAAAAAAAAAAAAAAA
2. 2 YEARS	66	12.4	IXXXXX
	(79	14.0)	IAAAAAA
3. 3 YEARS	28	5.2	IXXX
	(37	6.6)	IAAA
4. 4 YEARS	20	3.7	IXX
	(21	3.7)	IAA
5. 5 YEARS	11	2.1	IX
	(16	2.8)	IAA
6. OVER 5 YEARS	58	10.9	IXXXXX
	(70	12.4)	IAAAAA

M '74 = 1.9663
M '76 = 2.1170
SL = .144

8. HOW MANY PROFESSIONAL CONFERENCES DID YOU ATTEND LAST YEAR	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. 0	230	42.1	IXXXXXXXXXXXXXXX
	(273	47.7)	IAAAAAAAAAAAAAAAAAAA
2. 1	150	27.5	IXXXXXXXXXX
	(156	27.3)	IAAAAAAAAAA
3. 2	102	18.7	IXXXXXXX
	(88	15.4)	IAAAAAAA
4. 3	24	4.4	IXX
	(24	4.2)	IAA
5. GREATER THAN 3	40	7.3	IXXX
	(31	5.4)	IAAA

M '74 = 2.0804
M '76 = 1.9231
SL = .025

9. HOW MANY PAPERS HAVE YOU PUBLISHED	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. 0	245	44.8	IXXXXXXXXXXXXXXXXX
	(289	50.4)	IAAAAAAAAAAAAAAAAAAA
2. 1-5	212	38.8	IXXXXXXXXXXXXXX
	(201	35.1)	IAAAAAAAAAAAAA
3. 6-10	43	7.9	IXXXX
	(34	5.9)	IAAA
4. 11-15	16	2.9	IXX
	(21	3.7)	IAA
5. 16-20	10	1.8	IX
	(11	1.9)	IA
6. OVER 20	21	3.8	IXX
	(17	3.0)	IAA

M '74 = 1.8976
M '76 = 1.8045
SL = .184

10. HOW MANY PATENTS HAVE YOU RECEIVED	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. NOT APPLICABLE	541	92.8	IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	(528	93.1)	IAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
2. (FILL IN)	39	7.2	IXXX
	(39	6.9)	IAAA

M '74 = 1.0954
M '76 = 1.0688
SL = .153

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
CIVILIAN PROFESSIONAL EMPLOYEES TOWARDS UNIONIZATION
"XXX" REPRESENTS 1974 SURVEY "AAA" REPRESENTS 1976 SURVEY

11. DO YOU THINK YOUR PRESENT JOB IS PREPARING YOU TO ASSUME FUTURE POSITION OF GREATER RESPONSIBILITY	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. DEFINITELY NO	0	0.0	I
	61	10.6	IAAAAA
B. PROBABLY NO	0	0.0	I
	111	19.4	IAAAAAAAA
C. UNDECIDED	0	0.0	I
	48	8.4	IAAAA
D. PROBABLY YES	0	0.0	I
	234	40.8	IAAAAAAAAAAAAAAAA
E. DEFINETLY YES	0	0.0	I
	119	20.8	IAAAAAAAAA

Data not Compared

12. PERSONAL GROWTH: TO BE ABLE TO DEVELOP INDIVIDUAL CAPACITIES. TO WHAT DEGREE ARE YOU SATISFIED	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. HIGHLY DISSATISFIED	0	0.0	I
	25	4.3	IAA
2.	0	0.0	I
	42	7.3	IAAA
3.	0	0.0	I
	100	17.4	IAAAAAAA
4. NEUTRAL	0	0.0	I
	66	11.5	IAAAAA
5.	0	0.0	I
	168	29.2	IAAAAAAAAAAA
6.	0	0.0	I
	140	24.3	IAAAAAAAAAA
7. HIGHLY SATISFIED	0	0.0	I
	35	6.1	IAAA

Data not Compared

13. PRESENT YEARLY INCOME FROM PRESENT POSITION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. UNDER $11,999	61	11.1	IXXXXX
	11	1.9	IA
2. $12,000 TO $14,999	108	19.7	IXXXXXXXX
	128	22.3	IAAAAAAAAA
3. $15,000 TO $19,999	79	14.4	IXXXXXX
	87	15.1	IAAAAAAA
4. $20,000 TO $24,999	185	33.8	IXXXXXXXXXXXXXX
	119	20.7	IAAAAAAAAA
5. $25,000 TO $29,999	91	16.6	IXXXXXXX
	162	28.2	IAAAAAAAAAAAA
6. $30,000 TO $36,000	24	4.4	IXX
	68	11.8	IAAAAA

M '74 = 3.3814
M '76 = 3.8643
SL = .000

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
CIVILIAN PROFESSIONAL EMPLOYEES TOWARDS UNIONIZATION
"XX" REPRESENTS 1974 SURVEY "***" "AAA" REPRESENTS 1976 SURVEY

14. ECONOMIC STANDARD: SATISFACTION OF BASIC HUMAN NEEDS ETC. TO WHAT DEGREE ARE YOU SATISFIED WITH THE ECONOMIC STANDARD.	RESPONSES NO.	%	0% 25% 50% 75% 100%	DISTRIBUTION OF RESPONSES
1. HIGHLY DISSATISFIED	0	0.0	I	
	9	1.6	IA	
2.	0	0.0	I	
	31	5.4	IAAA	Data not Compared
3.	0	0.0	I	
	50	8.7	IAAAA	
4. NEUTRAL	0	0.0	I	
	61	10.6	IAAAAA	
5.	0	0.0	I	
	165	28.5	IAAAAAAAAAAA	
6.	0	0.0	I	
	188	32.5	IAAAAAAAAAAAAA	
7. HIGHLY SATISFIED	0	0.0	I	
	74	12.8	IAAAAAA	

15. ECONOMIC SECURITY: GUARANTEED EMPLOYMENT: RETIREMENT BENEFITS ETC. TO WHAT DEGREE ARE YOU SATISFIED WITH THE ECONOMIC SECURITY.	RESPONSES NO.	%	0% 25% 50% 75% 100%	DISTRIBUTION OF RESPONSES
1. HIGHLY DISSATISFIED	0	0.0	I	
	6	1.0	IA	
2.	0	0.0	I	
	20	3.5	IAA	Data not Compared
3.	0	0.0	I	
	49	8.5	IAAAA	
4. NEUTRAL	0	0.0	I	
	67	11.7	IAAAAA	
5.	0	0.0	I	
	143	24.9	IAAAAAAAAAA	
6.	0	0.0	I	
	198	34.4	IAAAAAAAAAAAAA	
7. HIGHLY SATISFIED	0	0.0	I	
	92	16.0	IAAAAAAA	

16. FREE TIME: AMOUNT, USE, AND SCHEDULING OF FREE TIME ETC. TO WHAT DEGREE ARE YOU SATISFIED WITH THE FREE TIME.	RESPONSES NO.	%	0% 25% 50% 75% 100%	DISTRIBUTION OF RESPONSES
1. HIGHLY DISSATISFIED	0	0.0	I	
	4	.7	IA	
2.	0	0.0	I	
	25	4.3	IAA	Data not Compared
3.	0	0.0	I	
	60	10.4	IAAAAA	
4. NEUTRAL	0	0.0	I	
	82	14.3	IAAAAAA	
5.	0	0.0	I	
	152	26.4	IAAAAAAAAAA	
6.	0	0.0	I	
	184	32.0	IAAAAAAAAAAAA	
7. HIGHLY SATISFIED	0	0.0	I	
	68	11.8	IAAAAA	

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
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"XXX" REPRESENTS 1974 SURVEY *** "AAA" REPRESENTS 1976 SURVEY

17. CHOOSE THE ONE OF THE FOLLOWING STATEMENTS WHICH BEST TELLS HOW WELL YOU LIKE YOUR JOB.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. I HATE IT.	3	.5	IX				
	2	.3	IA				
2. I DISLIKE IT	13	2.4	IX				
	22	3.8	IAA				
3. I DON'T LIKE IT.	20	3.7	IXX				
	30	5.2	IAAA				
4. I AM INDIFFERENT TO IT.	52	9.5	IXXXX				
	51	8.8	IAAAA				
5. I LIKE IT.	249	45.5	IXXXXXXXXXXXXXXXXXX				
	281	48.6	IAAAAAAAAAAAAAAAAAAA				
6. I AM ENTHUSIASTIC ABOUT IT.	184	33.6	IXXXXXXXXXXXXX				
	172	29.8	IAAAAAAAAAAAA				
7. I LOVE IT.	26	4.8	IXX				
	20	3.5	IAA				

M '74 = 5.1700
M '76 = 5.0462
SL = .047

18. HOW MUCH OF THE TIME DO YOU FEEL SATISFIED WITH YOUR JOB.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. ALL THE TIME	21	3.9	IXX				
	26	4.5	IAA				
2. MOST OF THE TIME	234	43.1	IXXXXXXXXXXXXXXXXX				
	247	42.7	IAAAAAAAAAAAAAAAAA				
3. A GOOD DEAL OF THE TIME	136	25.0	IXXXXXXXXXX				
	130	22.5	IAAAAAAAAA				
4. ABOUT HALF OF THE TIME	73	13.4	IXXXXXX				
	85	14.7	IAAAAAA				
5. OCCASIONALLY	61	11.2	IXXXXX				
	65	11.2	IAAAAA				
6. SELDOM	17	3.1	IXX				
	22	3.8	IAA				
7. NEVER	1	.2	IX				
	3	.5	IA				

M '74 = 2.9521
M '76 = 2.9896
SL = .615

19. CHECK THE ONE OF THE FOLLOWING WHICH BEST TELLS HOW YOU FEEL ABOUT CHANGING YOUR JOB	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I	25% I	50% I	75% I	100% I
1. QUIT JOB AT ONCE IF I COULD GET ANYTHING ELSE	1	.2	IX				
	5	.9	IA				
2. TAKE ALMOST ANY OTHER JOB IF EARN AS MUCH AS NOW	5	.9	IX				
	10	1.7	IA				
3. LIKE TO CHANGE JOB AND OCCUPATION	32	5.9	IXXX				
	42	7.3	IAAA				
4. EXCHANGE PRESENT JOB FOR ANOTHER IN SAME CAREER FIELD	60	11.0	IXXXXX				
	78	13.5	IAAAAAA				
5. NOT EAGER TO CHANGE JOBS UNLESS COULD GET A BETTER JOB	353	65.3	IXXXXXXXXXXXXXXXXXXXXXXXX				
	362	62.8	IAAAAAAAAAAAAAAAAAAAAAAAA				
6. CANNOT THINK OF ANY JOBS I WOULD EXCHANGE WITH	83	15.3	IXXXXXXX				
	67	11.6	IAAAAA				
7. I WOULD NOT EXCHANGE MY JOB FOR ANY OTHER.	9	1.7	IX				
	12	2.1	IA				

M '74 = 4.9227
M '76 = 4.7899
SL = .012

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20. CHECK ONE OF THE FOLLOWING TO SHOW HOW YOU THINK YOU COMPARE WITH OTHER PEOPLE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. NO ONE LIKES HIS JOB BETTER THAN I LIKE MINE	3	.6	IX
	(6	1.0)	IA
2. I LIKE MY JOB MUCH BETTER THAN MOST PEOPLE LIKE THEIRS.	72	13.4	IXXXXXX
	(74	12.8)	IAAAAAA
3. I LIKE MY JOB BETTER THAN MOST PEOPLE LIKE THEIRS	199	37.0	IXXXXXXXXXXXXXX
	(217	37.6)	IAAAAAAAAAAAAAAA
4. I LIKE MY JOB ABOUT AS WELL AS MOST PEOPLE LIKE THEIRS.	233	43.3	IXXXXXXXXXXXXXXXX
	(237	41.1)	IAAAAAAAAAAAAAAAA
5. I DISLIKE MY JOB MORE THAN MOST PEOPLE DISLIKE THEIRS.	29	5.4	IXXX M '74 = 3.4089
	(39	6.8)	IAAA
6. I DISLIKE MY JOB MUCH MORE THAN MOST PEOPLE DISLIKE THEIRS	1	.2	IX M '76 = 3.4177
	(4	.7)	IA
7. NO ONE DISLIKES HIS JOB MORE THAN I DISLIKE MINE	1	.2	IX SL = .863
	(0	0.0)	I

21. HOW OFTEN ARE YOU GIVEN FEEDBACK FROM YOUR SUPERVISOR ABOUT YOUR JOB PERFORMANCE.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. NEVER	0	0.0	I
	(34	5.9)	IAAA
B. SELDOM	0	0.0	I Data not Compared
	(193	33.6)	IAAAAAAAAAAAAA
C. SOMETIMES	0	0.0	I
	(239	41.6)	IAAAAAAAAAAAAAAAA
D. FREQUENTLY	0	0.0	I
	(103	17.9)	IAAAAAAAA
E. VERY FREQUENTLY	0	0.0	I
	(6	1.0)	IA

22. HOW OFTEN DO YOU AND YOUR SUPERISOR GET TOGETHER TO SET YOUR PERSONAL PERFORMANCE OBJECTIVES	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. NEVER	0	0.0	I
	(85	14.8)	IAAAAAA Data not Compared
B. SELDOM	0	0.0	I
	(252	43.9)	IAAAAAAAAAAAAAAAAA
C. SOMETIMES	0	0.0	I
	(197	34.3)	IAAAAAAAAAAAAA Data not Compared
D. FREQUENTLY	0	0.0	I
	(38	6.6)	IAAA
E. VERY FREQUENTLY	0	0.0	I
	(2	.3)	IA

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23. WORK: DOING WORK THAT IS PERSONALLY MEANINGFUL AND IMPORTANT ETC. TO WHAT DEGREE ARE YOU SATISFIED WITH THE WORK.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. HIGHLY DISSATISFIED	0	0.0	I
	16	2.8	IAA
2.	0	0.0	I
	41	7.1	IAAA
3.	0	0.0	I
	81	14.1	IAAAAAA
4. NEUTRAL	0	0.0	I
	84	14.6	IAAAAAA
5.	0	0.0	I
	168	29.2	IAAAAAAAAAAA
6.	0	0.0	I
	153	26.6	IAAAAAAAAAA
7. HIGHLY SATISFIED	0	0.0	I
	32	5.6	IAAA

Data not Compared

24. LEADERSHIP/SUPERVISION: HAS MY INTERST AND THAT OF THE AF AT HEART. TO WHAT DEGREE ARE YOU SATISFIED WITH THE LEADERSHIP/SUPERVISION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
1. HIGHLY DISSATISFIED	0	0.0	I
	33	5.7	IAAA
2.	0	0.0	I
	64	11.1	IAAAAA
3.	0	0.0	I
	82	14.3	IAAAAAA
4. NEUTRAL	0	0.0	I
	104	18.1	IAAAAAAAA
5.	0	0.0	I
	146	25.4	IAAAAAAAAAA
6.	0	0.0	I
	122	21.2	IAAAAAAAAA
7. HIGHLY SATISFIED	0	0.0	I
	24	4.2	IAA

Data not Compared

25. ARE YOU GIVEN THE FREEDOM YOU NEED TO DO YOUR JOB WELL	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. NEVER	0	0.0	I
	6	1.0	IA
B. SELDOM	0	0.0	I
	35	6.1	IAAA
C. SOMETIMES	0	0.0	I
	99	17.2	IAAAAAAA
D. OFTEN	0	0.0	I
	275	47.7	IAAAAAAAAAAAAAAAAAAAA
E. ALWAYS	0	0.0	I
	161	28.0	IAAAAAAAAAAA

Data not Compared

SURVEY OF TRENDS IN ATTITUDES OF FEDERAL
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26. IS YOUR PRESENT POSITION SCIENTIST, ENGINEER, OR MANAGER	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I 25% I 50% I 75% I 100% I
1. SCIENTIST	64	11.8	IXXXXX
	(30	5.2)	IAAA M '74 = 1.9816 M '76 = 2.1280 SL = .000
2. ENGINEER	427	78.6	IXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	(444	76.8)	IAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
3. MANAGER	52	9.6	IXXXX
	(104	18.0)	IAAAAAAAA

27. HOW LONG HAVE YOU BEEN IN YOUR PRESENT POSITION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I 25% I 50% I 75% I 100% I
1. UNDER 1 YEAR	95	17.5	IXXXXXXX
	(91	15.7)	IAAAAAAA
2. 1-3 YEARS	211	38.9	IXXXXXXXXXXXXXXX
	(216	36.3)	IAAAAAAAAAAAAAAA
3. 4-5 YEARS	59	10.9	IXXXXX
	(85	14.7)	IAAAAAA M '74 = 2.7643
4. 6-10 YEARS	83	15.3	IXXXXXXX
	(72	12.5)	IAAAAA M '76 = 2.8616
5. OVER 10 YEARS	95	17.5	IXXXXXXX
	(120	20.8)	IAAAAAAAAA SL = .0239

28. IF EMPLOYEE OF THE FEDERAL GOVERNMENT, LIST CIVIL SERVICE GRADE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I 25% I 50% I 75% I 100% I
A. NOT APPLICABLE	2	.4	IX
	(2	.3)	IA
B. GS-7	50	9.3	IXXXX
	(56	9.8)	IAAAA M '74 = 4.9592
C. GS-9	84	15.6	IXXXXXXX
	(96	16.7)	IAAAAAAA M '76 = 4.8728
D. GS-11	43	8.0	IXXXX
	(56	9.8)	IAAAA SL = .381
E. GS-12	98	18.2	IXXXXXXXX
	(123	21.4)	IAAAAAAAAA
F. GS-13	193	35.8	IXXXXXXXXXXXXXXX
	(158	27.5)	IAAAAAAAAAAAA
G. GS-14	54	10.0	IXXXX
	(58	10.1)	IAAAAA
H. GS-15	14	2.6	IX
	(23	4.0)	IAA
I. ABOVE GS-15	1	.2	IX
	(2	.3)	IA

29. IS YOUR WORK PRIMARILY IN THE AREA OF BASIC RESEARCH, APPLIED RESEARCH, OR DEVELOPMENT	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I 25% I 50% I 75% I 100% I
A. BASIC RESEARCH	18	3.4	IXX
	(21	3.7)	IAA M '74 = 2.6331 M '76 = 2.6465 SL = .0695
B. APPLIED RESEARCH	166	31.3	IXXXXXXXXXXXX
	(158	28.1)	IAAAAAAAAAAA
C. DEVELOPMENT	351	65.6	IXXXXXXXXXXXXXXXXXXXXXXXXX
	(383	68.1)	IAAAAAAAAAAAAAAAAAAAAAAAAAA

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30. HOW MANY YEARS HAVE YOU BEEN EMPLOYED BY THE GOVERNMENT

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I 25% I 50% I 75% I 100% I
1. 0-2 YEARS	110	20.1	IXXXXXXXX
	(93	16.1)	IAAAAAAA
2. 3-5 YEARS	95	17.3	IXXXXXXX
	(105	18.2)	IAAAAAAAA
3. 6-10 YEARS	92	16.8	IXXXXXXX
	(72	12.5)	IAAAAA
4. 11-15 YEARS	79	14.4	IXXXXXX
	(88	15.3)	IAAAAAAA
5. 16-20 YEARS	71	13.0	IXXXXXX
	(91	15.8)	IAAAAAAA
6. 21-30 YEARS	69	12.6	IXXXXX
	(74	12.8)	IAAAAAA
7. OVER 30 YEARS	32	5.8	IXXX
	(54	9.4)	IAAAA

M '74 = 3.4398
M '76 = 3.7227
SL = .013

31. PERSONAL STANDING: TO BE TREATED WITH RESPECT: PRESTIGE: ETC
TO WHAT DEGREE ARE YOU SATISFIED WITH YOUR PERSONAL STANDING

	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I 25% I 50% I 75% I 100% I
1. HIGHLY DISSATISFIED	0	0.0	I
	(14	2.4)	IA
2.	0	0.0	I
	(22	3.8)	IAA
3.	0	0.0	I
	(53	9.2)	IAAAA
4. NEUTRAL	0	0.0	I
	(76	13.2)	IAAAAAA
5.	0	0.0	I
	(185	32.1)	IAAAAAAAAAAAA
6.	0	0.0	I
	(198	34.3)	IAAAAAAAAAAAAA
7. HIGHLY SATISFIED	0	0.0	I
	(29	5.0)	IAAA

Data not Compared

32. HOW LONG HAVE YOU LIVED IN THE DAYTON AREA

Data not Usable

NO. OF RESPONSES: 550 MEAN: 0.00 STANDARD DEVIATION: 0.00 SMALLEST VALUE: 0 LARGEST VALUE: 0

SECOND SUBSAMPLE:

NO. OF RESPONSES: 578 MEAN: 16.90 STANDARD DEVIATION: 12.73 SMALLEST VALUE: 0 LARGEST VALUE: 58

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	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
33. ARE YOU CURRENTLY A MEMBER OF A UNION			
A. YES	0	0.0	I
	(2	.3)	IA — Data not Compared
B. NO	0	0.0	I
	(574	99.7)	IAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
34. HAVE YOU EVER BELONGED TO A UNION			
A. NO	0	0.0	I
	(403	70.2)	IAAAAAAAAAAAAAAAAAAAAAAAAAAAA
B. YES, AND IT WAS ADVANTAGEOUS	0	0.0	I
	(47	8.2)	IAAAA
C. YES, BUT IT WAS NEITHER ADVANTAGEOUS NOR DISADVANTAGEOUS	0	0.0	I
	(95	16.6)	IAAAAAAA — Data not Compared
D. YES, AND IT WAS DISADVANTAGEOUS	0	0.0	I
	(29	5.1)	IAAA
35. DO ANY OF YOUR FRIENDS BELONG TO A UNION			
A. NO	0	0.0	I
	(233	41.2)	IAAAAAAAAAAAAAAAAA
B. YES, AND OVERALL THEY FEEL UNION MEMBERSHIP IS ADVANTAGEOUS	0	0.0	I — Data not Compared
	(127	22.4)	IAAAAAAAAA
C. YES BUT OVERALL THEIR FEELINGS ABOUT UNION MEMBERSHIP ARE MIXED	0	0.0	I
	(194	34.3)	IAAAAAAAAAAAAAA
D. YES, AND OVERALL THEY FEEL UNION MEMBERSHIP IS DISADVANTAGEOUS	0	0.0	I
	(12	2.1)	IA
36. WERE (OR ARE) EITHER OF YOUR PARENTS MEMBERS OF A LABOR UNION			
A. NO	0	0.0	I
	(363	63.6)	IAAAAAAAAAAAAAAAAAAAAAAAAAA
B. YES, AND OVERALL THEY FEEL UNION MEMBERSHIP IS ADVANTAGEOUS	0	0.0	I
	(127	22.2)	IAAAAAAAAA
C. YES BUT OVERALL THEIR FEELINGS ABOUT UNION MEMBERSHIP ARE MIXED	0	0.0	I
	(63	11.0)	IAAAAA — Data not Compared
D. YES, AND OVERALL THEY FEEL UNION MEMBERSHIP IS DISADVANTAGEOUS	0	0.0	I
	(18	3.2)	IAA
37. CURRENTLY, FEDERAL CIVILIAN EMPLOYEE UNIONS HAVE THE RIGHT TO STRIKE			
A. TRUE	0	0.0	I
	(15	2.6)	IAA — Data not Compared
B. FALSE	0	0.0	I
	(393	68.7)	IAAAAAAAAAAAAAAAAAAAAAAAAAAA
C. DON'T KNOW	0	0.0	I
	(164	28.7)	IAAAAAAAAAAAA

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	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
38. FEDERAL CIVILIAN EMPLOYEES WHO'S WORK UNIT IS UNIONIZED ARE COVERED BY UNION CONTRACT EVEN IF THEY ARE NOT UNION MEMBERS			
A. TRUE	0	0.0	I
	(231	40.5)	IAAAAAAAAAAAAAAAAA
B. FALSE	0	0.0	I
	(83	14.6)	IAAAAAA
C. DON'T KNOW	0	0.0	I
	(256	44.9)	IAAAAAAAAAAAAAAAAA
39. CURRENTLY, A SUPERVISOR HAS THE RIGHT TO KNOW WHICH OF HIS FEDERAL CIVILIAN EMPLOYEES BELONG TO A UNION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. TRUE	0	0.0	I
	(110	19.3)	IAAAAAAAA
B. FALSE	0	0.0	I
	(98	17.2)	IAAAAAAA
C. DON'T KNOW	0	0.0	I
	(363	63.6)	IAAAAAAAAAAAAAAAAAAAAAAAA
40. I BELIEVE THAT GOVERNMENT EMPLOYEE UNIONS:	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. SIGNIFICANTLY IMPROVE RELATIONS BETWEEN MANAGEMENT AND EMPLOYEES	17	3.1	IXX
	(10	1.8)	IA
B. SOMEWHAT IMPROVED RELATIONS BETWEEN MANAGEMENT AND EMPLOYEES	171	31.7	IXXXXXXXXXXXX
	(97	17.6)	IAAAAAAAA M '74 = 2.9130
C. LITTLE OR NO IMPACT BETWEEN MANAGEMENT AND EMPLOYEES	206	38.1	IXXXXXXXXXXXXXXX
	(234	42.5)	IAAAAAAAAAAAAAAAA M'76 = 3.2341
D. NEGATIVE IMPACT ON RELATIONS BETWEEN MANAGEMENT AND EMPLOYEES	134	24.8	IXXXXXXXXX
	(174	31.6)	IAAAAAAAAAAAA SL = .000
E. SERIOUSLY IMPAIR RELATIONS BETWEEN MANAGEMENT AND EMPLOYEES	12	2.2	IX
	(36	6.5)	IAAA
41. UNIONS OBTAIN MORE BENEFITS FOR EMPLOYEES THAN WOULD BE OBTAINED WITHOUT THEM	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	64	11.7	IXXXXX
	(68	12.0)	IAAAAA
B. AGREE	347	63.2	IXXXXXXXXXXXXXXXXXXXXXXXXX
	(272	47.8)	IAAAAAAAAAAAAAAAAAAA
C. NO OPINION	56	10.2	IXXXXX
	(108	19.0)	IAAAAAAAA M '74 = 2.2969
D. DISAGREE	75	13.7	IXXXXXX
	(98	17.2)	IAAAAAAA M '76 = 2.5360
E. STRONGLY DISAGREE	7	1.3	IX
	(23	4.0)	IAA SL = .000

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	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I 25% I 50% I 75% I 100%
42. MEMBERSHIP IN A UNION INCREASES A PERSON'S PROFESSIONAL STATUS			
A. STRONGLY AGREE	4	.7	IX
	7	1.2	IA
B. AGREE	21	3.8	IXX
	20	3.5	IAA
C. NO OPINION	90	16.4	IXXXXXXX
	110	19.1	IAAAAAAAA
D. DISAGREE	343	62.5	IXXXXXXXXXXXXXXXXXXXXXXXX
	284	49.4	IAAAAAAAAAAAAAAAAAAA
E. STRONGLY DISAGREE	91	16.6	IXXXXXXX
	154	26.8	IAAAAAAAAAAA
M '74 = 3.9035			
M '76 = 3.974			
SL = .155			
43. IF WHITE COLLAR AND PROFESSIONAL EMPLOYEES WERE REPRESENTED BY FEDERAL EMPLOYEE UNIONS, ORGANIZATIONAL EFFECTIVENESS WOULD BE:	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I 25% I 50% I 75% I 100%
A. SIGNIFICANTLY IMPROVED	10	1.8	IX
	7	1.2	IA
B. IMPROVED	93	16.6	IXXXXXXX
	70	12.5	IAAAAA
C. UNAFFECTED	248	45.8	IXXXXXXXXXXXXXXXXXX
	207	36.9	IAAAAAAAAAAAAAAA
D. DECREASED	158	29.2	IXXXXXXXXXXX
	192	34.2	IAAAAAAAAAAAAA
E. SIGNIFICANTLY DECREASED	36	6.6	IXXX
	85	15.2	IAAAAAAA
M '74 = 3.2214			
M '76 = 3.4955			
SL = .000			
44. GOVERNMENT EMPLOYEES OR THEIR REPS SHOULD BE CONSULTED BY MGTMNT ON MATTERS CONCERNING PERSONNEL POLICIES AND WORKING CONDITIONS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I 25% I 50% I 75% I 100%
A. STRONGLY AGREE	92	16.9	IXXXXXXX
	82	14.3	IAAAAAA
B. AGREE	361	66.2	IXXXXXXXXXXXXXXXXXXXXXXXXX
	335	58.4	IAAAAAAAAAAAAAAAAAAAAAAA
C. NO OPINION	49	9.0	IXXXX
	90	15.7	IAAAAAAA
D. DISAGREE	37	6.8	IXXX
	52	9.1	IAAAA
E. STRONGLY DISAGREE	6	1.1	IX
	15	2.6	IAA
M '74 = 2.0899			
M '76 = 2.2735			
SL = .000			
45. UNION REPRESENTATION INSURES THAT EMPLOYEES ARE TREATED WITH DIGNITY AS INDIVIDUALS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% I 25% I 50% I 75% I 100%
A. STRONGLY DISAGREE	56	10.3	IXXXXX
	72	12.5	IAAAAA
B. DISAGREE	303	55.6	IXXXXXXXXXXXXXXXXXXXXXX
	269	46.7	IAAAAAAAAAAAAAAAAAAA
C. NO OPINION	87	16.0	IXXXXXXX
	148	25.7	IAAAAAAAAAAA
D. AGREE	83	15.2	IXXXXXXX
	69	12.0	IAAAAA
E. STRONGLY AGREE	16	2.9	IXX
	18	3.1	IAA
M '74 = 2.4560			
M '76 = 2.4653			
SL = .874			

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46. UNION REPRESENTING WHITE COLLAR/PROFESSIONAL WORKERS WOULD HAVE WHAT KIND OF IMPACT ON EMPLOYEE-MANAGEMENT RELATIONS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. RELATIONS WOULD BE EXTREMELY ANTAGONISTIC	17	3.2	IXX
	(33	6.0)	IAAA
B. RELATIONS WOULD BE SOMEWHAT ANTAGONISTIC	262	48.6	IXXXXXXXXXXXXXXXXXXX
	(311	56.2)	IAAAAAAAAAAAAAAAAAAAAAA
C. THERE WOULD BE NO CHANGE IN EMPLOYEE-MANAGEMENT RELATIONS	154	28.6	IXXXXXXXXXXX
	(143	25.9)	IAAAAAAAAAA
D. RELATIONS WOULD BE SOMEWHAT IMPROVED	96	17.8	IXXXXXXXX
	(58	10.5)	IAAAAA
E. RELATIONS WOULD BE SIGNIFICANTLY IMPROVED	10	1.9	IX
	(8	1.4)	IA

M '74 = 2.6660
M '76 = 2.4521
SL = .000

47. THE PROMOTION SYSTEM IS FAIR	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	65	11.9	IXXXXX
	(73	12.7)	IAAAAAA
B. DISAGREE	197	36.1	IXXXXXXXXXXXXXX
	(200	34.8)	IAAAAAAAAAAAAA
C. NO OPINION	109	20.0	IXXXXXXXX
	(91	15.8)	IAAAAAAA
D. AGREE	168	30.8	IXXXXXXXXXXXX
	(205	35.7)	IAAAAAAAAAAAAAA
E. STRONGLY AGREE	6	1.1	IX
	(6	1.0)	IA

M '74 = 2.7303
M '76 = 2.7757
SL = .481

48. OVER THE PAST FEW YEARS WORKING CONDITIONS HAVE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. DETERIORATED SIGNIFICANTLY	26	4.9	IXX
	(57	10.1)	IAAAAA
B. DETERIORATED SOMEWHAT	88	16.5	IXXXXXXX
	(125	22.0)	IAAAAAAAAA
C. PRETTY MUCH REMAINED THE SAME	286	53.8	IXXXXXXXXXXXXXXXXXXXX
	(279	49.2)	IAAAAAAAAAAAAAAAAAAA
D. IMPROVED SOMEWHAT	116	21.8	IXXXXXXXXX
	(88	15.5)	IAAAAAAA
E. IMPROVED SIGNIFICANTLY	16	3.0	IXX
	(18	3.2)	IAA

M '74 = 3.0150
M '76 = 2.8028
SL = .000

49. IN MY ORGANIZATIONAL UNIT I HAVE THE OPPORTUNITY TO INFLUENCE MAJOR DECISIONS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. TO A CONSIDERABLE DEGREE	65	12.0	IXXXXX
	(75	13.0)	IAAAAAA
B. TO SOME DEGREE	209	38.6	IXXXXXXXXXXXXXX
	(188	32.6)	IAAAAAAAAAAAAA
C. SOMEWHAT	113	21.8	IXXXXXXXXX
	(144	25.0)	IAAAAAAAAA
D. I DON'T HAVE MUCH INFLUENCE	122	22.6	IXXXXXXXXX
	(124	21.5)	IAAAAAAAAA
E. I HAVE NO INFLUENCE WHATSOEVER	27	5.0	IXX
	(46	8.0)	IAAAA

M '74 = 2.6987
M '76 = 2.7886
SL = .183

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50. COMPARED TO INDIVIDUALS WITH SIMILAR EDUCATION AND TRAINING WORKING IN INDUSTRY, MY SALARY IS:	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. CONSIDERABLY HIGHER	11	2.0	IX
	21	3.7	IAA
B. SOMEWHAT HIGHER	130	24.0	IXXXXXXXXXX
	129	22.7	IAAAAAAAAAA
C. ABOUT THE SAME	272	50.2	IXXXXXXXXXXXXXXXXXXXX
	261	46.0	IAAAAAAAAAAAAAAAAAAA
D. SOMEWHAT LOWER	113	20.8	IXXXXXXXXX
	136	23.9	IAAAAAAAAA
E. CONSIDERABLY LOWER	16	3.0	IXX
	21	3.7	IAA

M '74 = 2.9871
M '76 = 3.0123
SL = .617

51. STRIKES CAN BE LEGIT. MEANS OF COLLECTIVE ACTION AND SHOULD BE PERMITTED FOR GOV'T EMPLOYEES IN NON-CRITICAL JOBS.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	11	2.0	IX
	20	3.5	IAA
B. AGREE	143	26.3	IXXXXXXXXXX
	89	15.5	IAAAAAAA
C. NO OPINION	95	17.5	IXXXXXXX
	97	16.9	IAAAAAAA
D. DISAGREE	191	35.1	IXXXXXXXXXXXXXX
	233	40.5	IAAAAAAAAAAAAAAA
E. STRONGLY DISAGREE	104	19.1	IXXXXXXXX
	136	23.7	IAAAAAAAAA

M '74 = 3.4301
M '76 = 3.6580
SL = .001

52. THE PROMOTION SYSTEM IS EFFECTIVE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	62	11.4	IXXXXX
	74	12.9	IAAAAAA
B. DISAGREE	226	41.6	IXXXXXXXXXXXXXXXX
	243	42.4	IAAAAAAAAAAAAAAAA
C. NO OPINION	87	16.0	IXXXXXXX
	79	13.8	IAAAAAA
D. AGREE	165	30.4	IXXXXXXXXXXXX
	166	29.0	IAAAAAAAAAAA
E. STRONGLY AGREE	3	.6	IX
	11	1.9	IA

M '74 = 2.6703
M '76 = 2.6457
SL = .700

53. MY FORMAL SUPERVISOR TREATS ALL EMPLOYEES FAIRLY	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	15	2.7	IXX
	20	3.5	IAA
B. DISAGREE	48	8.8	IXXXX
	59	10.2	IAAAAA
C. NO OPINION	43	7.8	IXXXX
	63	10.9	IAAAAA
D. AGREE	347	63.3	IXXXXXXXXXXXXXXXXXXXXXXXXX
	336	58.3	IAAAAAAAAAAAAAAAAAAAAAAAA
E. STRONGLY AGREE	95	17.3	IXXXXXXX
	98	17.0	IAAAAAAA

M '74 = 3.8376
M '76 = 3.7517
SL = .126

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54. I AM GIVEN CREDIT FOR WORK I HAVE DONE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. NEVER	6	1.1	IX
	9	1.6	IA
			M '74 = 3.8135
B. INFREQUENTLY	28	5.1	IXXX
	74	12.8	IAAAAAA
			M '76 = 3.643
C. SOMETIMES	113	20.7	IXXXXXXXXX
	119	20.6	IAAAAAAAAA
			SL = .001
D. MOST OF THE TIME	315	57.6	IXXXXXXXXXXXXXXXXXXXXXX
	292	50.6	IAAAAAAAAAAAAAAAAAAAA
E. ALL OF THE TIME	85	15.5	IXXXXXXX
	83	14.4	IAAAAAA

55. OVERALL THE MANAGEMENT OF MY ORGANIZATION IS COMPETENT AND EFFECTIVE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	22	4.0	IXX
	30	5.2	IAAA
B. AGREE	261	47.8	IXXXXXXXXXXXXXXXXXXX
	243	42.3	IAAAAAAAAAAAAAAAAAA
C. NO OPINION	72	13.2	IXXXXXX
	72	12.5	IAAAAAA
			M '74 = 2.8443
D. DISAGREE	162	29.7	IXXXXXXXXXXX
	170	29.6	IAAAAAAAAAAAA
			M '76 = 2.9774
E. STRONGLY DISAGREE	29	5.3	IXXX
	60	10.4	IAAAAA
			SL = .045

56. UNION REPRESENTATION AT MY ORGANIZATION WOULD HELP PREVENT A MAJOR REDUCTION IN FORCE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	82	15.1	IXXXXXX
	103	17.9	IAAAAAAAA
B. DISAGREE	285	52.4	IXXXXXXXXXXXXXXXXXXXX
	295	51.4	IAAAAAAAAAAAAAAAAAAAA
C. NO OPINION	128	23.5	IXXXXXXXXXX
	134	23.3	IAAAAAAAAAA
			M '74 = 2.2721
D. AGREE	45	8.3	IXXXX
	33	5.7	IAAA
			M '76 = 2.2160
E. STRONGLY AGREE	4	.7	IX
	9	1.6	IA
			SL = .271

57. UNIONS HAVE BEEN SUCCESSFUL IN AIDING OTHER PROFESSIONAL EMPLOYEES	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	37	6.8	IXXX
	50	8.7	IAAAA
			M '74 = 2.9145
B. DISAGREE	131	23.9	IXXXXXXXXXX
	142	24.7	IAAAAAAAAAA
			M '76 = 2.7917
C. NO OPINION	216	39.5	IXXXXXXXXXXXXXXXX
	274	47.6	IAAAAAAAAAAAAAAAAA
			SL = .006
D. AGREE	153	28.0	IXXXXXXXXXXX
	98	17.0	IAAAAAAA
E. STRONGLY AGREE	10	1.8	IX
	12	2.1	IA

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58. PROFESSIONAL EMPLOYEES WOULD BENEFIT FROM LARGER SALARY INCREASE IF THEY WERE REPRESENTED BY A UNION	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%	
A. STRONGLY AGREE	12	2.2	IX	
	(17	3.0)	IAA	
B. AGREE	120	21.9	IXXXXXXXXX	M '74 = 3.3108
	(121	21.1)	IAAAAAAAAA	
C. NO OPINION	142	26.0	IXXXXXXXXXX	M '76 = 3.2949
	(160	27.9)	IAAAAAAAAAAA	
D. DISAGREE	232	42.4	IXXXXXXXXXXXXXXXX	SL = .787
	(226	39.4)	IAAAAAAAAAAAAAAA	
E. STRONGLY DISAGREE	41	7.5	IXXX	
	(49	8.6)	IAAAA	

59. THE BENEFITS, ECONOMIC AND OTHERWISE, OBTAINED FROM BELONGING TO A UNION MORE THAN COMPENSATE FOR THE MONTHLY DUES.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%	
A. STRONGLY DISAGREE	72	13.2	IXXXXXX	
	(85	14.8)	IAAAAAA	
B. DISAGREE	187	34.2	IXXXXXXXXXXXXX	M '74 = 2.6667
	(200	34.9)	IAAAAAAAAAAAAA	
C. NO OPINION	151	27.7	IXXXXXXXXXXX	M '76 = 2.5672
	(178	31.1)	IAAAAAAAAAAAA	
D. AGREE	123	22.5	IXXXXXXXXX	SL = .104
	(98	17.1)	IAAAAAAA	
E. STRONGLY AGREE	13	2.4	IX	
	(12	2.1)	IA	

60. UNION LEADERS GENERALLY ACT IN THE BEST INTERESTS OF UNION MEMBERS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%	
A. STRONGLY DISAGREE	0	0.0	I	
	(89	15.5)	IAAAAAAA	
B. DISAGREE	0	0.0	I	Data not Compared
	(98	17.0)	IAAAAAAA	
C. INCLINE TO DISAGREE	0	0.0	I	
	(157	27.3)	IAAAAAAAAAAA	
D. UNDECIDED	0	0.0	I	
	(76	13.2)	IAAAAAA	
E. INCLINED TO AGREE	0	0.0	I	
	(120	20.9)	IAAAAAAAAA	
F. AGREE	0	0.0	I	
	(30	5.2)	IAAA	
G. STRONGLY AGREE	0	0.0	I	
	(5	.9)	IA	

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	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
61. UNIONS TENDED TO EMPHASIZE SENIORITY AS MOST IMPORTANT FOR ADVANCEMENT: THIS PRACTICE WOULD HAVE FOLLOWING EFFECT ON MY ORGANIZATION			
A. IT WOULD GREATLY IMPROVE MORALE	4	.7	IX
	(8	1.4)	IA M '74 = 3.6611
B. IT WOULD CAUSE SOME IMPROVEMENT IN MORALE	50	9.2	IXXXX
	(56	9.9)	IAAAA M '76 = 3.5816
C. IT WOULD HAVE NO IMPACT ON MORALE	131	24.1	IXXXXXXXXXX
	(158	28.0)	IAAAAAAAAAAA SL = .114
D. IT WOULD HAVE A NEGATIVE IMPACT ON MORALE	299	55.1	IXXXXXXXXXXXXXXXXXXXX
	(284	50.4)	IAAAAAAAAAAAAAAAAAAA
E. IT WOULD HAVE A DISASTEROUS IMPACT ON MORALE	59	10.9	IXXXXX
	(58	10.3)	IAAAAA
62. IF A UNION WERE ELECTED BY MEMBERS OF MY ORGANIZATION TO REPRESENT AND BARGAIN FOR PROFESSIONAL EMPLOYEES, I WOULD JOIN.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	76	13.9	IXXXXXX
	(147	25.5)	IAAAAAAAAAA
B. DISAGREE	221	40.4	IXXXXXXXXXXXXXXXX
	(176	30.6)	IAAAAAAAAAAAAA M '74 = 2.5229
C. NO OPINION	153	28.0	IXXXXXXXXXXX
	(157	27.3)	IAAAAAAAAAA M '76 = 2.3681
D. AGREE	82	15.0	IXXXXXX
	(86	14.9)	IAAAAAA SL = .012
E. STRONGLY AGREE	15	2.7	IXX
	(10	1.7)	IA
63. ONCE UNIONS ENTER AN ORGANIZATION, THEY TEND TO GAIN AN EXCESSIVE AMOUNT OF POWER	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	3	.5	IX
	(11	1.9)	IA M '74 = 3.7832
B. DISAGREE	67	12.2	IXXXXX
	(44	7.7)	IAAAA M '76 = 3.8778
C. NO OPINION	81	14.8	IXXXXXX
	(89	15.5)	IAAAAAAA SL = .086
D. AGREE	293	53.4	IXXXXXXXXXXXXXXXXXXXX
	(289	50.4)	IAAAAAAAAAAAAAAAAAAA
E. STRONGLY AGREE	105	19.1	IXXXXXXXX
	(140	24.4)	IAAAAAAAAA
64. A UNION CAN SOLVE PROBLEMS WHICH AN INDIVIDUAL, ON HIS OWN, WOULD BE UNABLE TO SOLVE	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	49	8.9	IXXXX
	(35	6.1)	IAAA
B. AGREE	322	58.8	IXXXXXXXXXXXXXXXXXXXXXX
	325	56.5)	IAAAAAAAAAAAAAAAAAAAA
C. NO OPINION	66	12.0	IXXXXX
	(93	16.2)	IAAAAAAA M '74 = 2.4580
D. DISAGREE	99	18.1	IXXXXXXXX
	(97	16.9)	IAAAAAAA M '76 = 2.5687
E. STRONGLY DISAGREE	12	2.2	IX
	(25	4.3)	IAA SL = .057

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65. IF A UNION WAS RECOGNIZED AS THE SOLE BARGAINING AGENT FOR MY ORGANIZATION, NONMEMBER EMPLOYEES WOULD BE FORCED TO JOIN.	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	10	1.8	IX
	(12	2.1)	IA
B. DISAGREE	85	15.5	IXXXXXXX
	(69	12.0)	IAAAAA
C. NO OPINION	89	16.2	IXXXXXXX
	(133	23.1)	IAAAAAAAAAA
D. AGREE	298	54.3	IXXXXXXXXXXXXXXXXXXXX
	(301	52.3)	IAAAAAAAAAAAAAAAAAAAA
E. STRONGLY AGREE	67	12.2	IXXXXX
	(60	10.4)	IAAAAA

M '74 = 3.5956
M '76 = 3.5704
SL = .650

66. IN THE PUBLIC, UNION LOBBYING EFFORTS ARE MORE EFFECTIVE THAN BARGAINING DIRECTLY WITH MANAGEMENT	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY AGREE	24	4.4	IXX
	(26	4.5)	IAA
B. AGREE	232	42.6	IXXXXXXXXXXXXXXXXX
	(226	39.4)	IAAAAAAAAAAAAAAAA
C. NO OPINION	209	38.4	IXXXXXXXXXXXXXXX
	(236	41.2)	IAAAAAAAAAAAAAAAA
D. DISAGREE	72	13.2	IXXXXXX
	(76	13.3)	IAAAAAA
E. STRONGLY DISAGREE	7	1.3	IX
	(9	1.6)	IA

M '74 = 2.6434
M '76 = 2.6789
SL = .467

67. ADEQUATE SAFEGUARDS EXIST IN THE SYSTEM THAT THERE IS NO NEED FOR UNIONS TO REPRESENT GOV'T EMPLOYEES IN CONGRESS THRU LOBBYING	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	37	6.7	IXXX
	(35	6.1)	IAAA
B. DISAGREE	195	35.5	IXXXXXXXXXXXXXX
	(179	31.1)	IAAAAAAAAAAAA
C. NO OPINION	89	16.2	IXXXXXXX
	(120	20.8)	IAAAAAAAAA
D. AGREE	192	35.0	IXXXXXXXXXXXXX
	(204	35.4)	IAAAAAAAAAAAAAA
E. STRONGLY AGREE	36	6.6	IXXX
	(38	6.6)	IAAA

M '74 = 2.9909
M '76 = 3.0538
SL = .3337

68. ADEQUATE SAFEGUARDS EXIST IN THE SYSTEM THAT THERE IS NO NEED FOR UNIONS TO RESOLVE DISPUTES AND LOOK AFTER EMPLOYEE INTERESTS	RESPONSES NO.	%	DISTRIBUTION OF RESPONSES 0% 25% 50% 75% 100%
A. STRONGLY DISAGREE	29	5.3	IXXX
	(23	4.0)	IAA
B. DISAGREE	177	32.4	IXXXXXXXXXXXX
	(145	25.2)	IAAAAAAAAAA
C. NO OPINION	95	17.4	IXXXXXXX
	(136	23.7)	IAAAAAAAAA
D. AGREE	222	40.6	IXXXXXXXXXXXXXXX
	(233	40.5)	IAAAAAAAAAAAAAAA
E. STRONGLY AGREE	24	4.4	IXX
	(38	6.6)	IAAA

M '74 = 3.064
M '76 = 3.2052
SL = .023

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69. IF AN ORGANIZATION OF FEDERALLY EMPLOYED PROFESSIONALS WAS FORMED TO REPRESENT THE INTEREST OF THIS GROUP I WOULD JOIN	RESPONSES NO.	%	C%	DISTRIBUTION OF RESPONSES 25% 50% 75% 100%
A. STRONGLY DISAGREE	0	0.0	I	
	100	17.4	IAAAAAAA	
B. DISAGREE	0	0.0	I	Data not Compared
	180	31.3	IAAAAAAAAAAAA	
C. NO OPINION	0	0.0	I	
	157	27.3	IAAAAAAAAAAA	
D. AGREE	0	0.0	I	
	122	21.2	IAAAAAAAAA	
E. STRONGLY AGREE	0	0.0	I	
	16	2.8	IAA	

VITA

Captain Richard H. Agnew, Jr. was born on 1 September 1949 in Washington D.C. He graduated from Olympia High School in Olympia, Washington in 1967 and entered the United States Air Force Academy. Upon graduation and commissioning in 1971, he entered Undergraduate Pilot Training at Webb AFB, Big Springs, Texas. The next four years were spent as a pilot in tactical airlift flying the C-130E. In September 1975, Captain Agnew entered AFIT to acquire a Master of Science Degree in Systems Management as part of his rated supplement tour.

Captain Ralph O. Jennings was born on 15 February 1948 in Owosso, Michigan. He graduated from Owosso High School in 1966 and entered the United States Air Force Academy. Upon graduation and commissioning in 1970, he entered Undergraduate Pilot Training. He spent the next five years as a pilot and instructor pilot. In September 1975, he entered AFIT to pursue a Master of Science Degree in Systems Management. He is married to the former Sandye Matznick of Owosso, Michigan.

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20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

The purpose of this study was to survey the attitudes of scientists and engineers toward federal government employee unions and to compare those findings to a similar study conducted two years previously. A questionnaire consisting of 39 demographic-type questions and 30 questions measuring attitudes was administered to 996 individuals. Sixty-nine percent of the surveys were returned in time to be included in the analysis.

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Results of the analysis indicated that overall job satisfaction predominates among scientists and engineers. There is general satisfaction with supervision but dissatisfaction with top management. In general, attitudes toward unions and union membership are negative. This negative opinion extends to union practices, powers, and leadership. It appears that the knowledge possessed by the respondents concerning unions does not have a significant impact on their attitudes. The negative conception appears to be rather a product of a considered opinion of the aims and activities of unions and not upon some connotation of the word "union."

Additional statistical analyses performed on the data generally confirm the findings of the previous study. They also show that the attitudes toward unions of the entire work force of scientists and engineers have become more negative. In addition, indications are that attitudes toward the individual's organization have become more negative.

This study thus confirms a previous empirical study and suggests possible areas which might be fruitful for further investigation.