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A review of NASA Federal Management Intern (MI) programs indicates potential for identification, attraction, and early development of successful administrative management employees, but suggests that successful development of managers is a function of the long-term care with which an agency pursues MI programs. A recent study of separations in NASA indicates that the loss rate is highest among younger employees, particularly in the administrative-management occupations. This indicates a need for more follow-up on the careers of young NASA people. Controllable conditions under which MI programs will best serve some of the agency's long range manpower requirements include: (1) clearing and agreeing upon the MI program objectives and plans by high and intermediate levels of agency management; (2) at least one policy level individual's active participation in the program is needed; (3) MI programs thrive for the long term only when their products earn status in the eyes of management; (4) MI program directors must be responsible for and have commensurate authority to react in the best interests of the program and the NASA mission; (5) MI programs should be tailored to the manpower needs and resources of each center. (Eleven charts are included in the study.) (dm)

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**NASA AND THE FEDERAL MANAGEMENT INTERN PROGRAM**

**A Staff Paper**

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**For the:**

**Program Management Branch  
Personnel Division**

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# NASA AND THE FEDERAL MANAGEMENT INTERN PROGRAM

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## NASA AND THE FEDERAL MANAGEMENT INTERN PROGRAM

### INTRODUCTION

For some time a number of NASA managers who have experience with Management Intern Programs have felt a pressing need to review NASA's Management Intern Program effort.

Discussions with these managers highlighted the following as objectives necessary if the review is to be of highest value to NASA:

- o Determine the status of the Management Intern Program effort in NASA.
- o Provide information which will assist managers in assessing and further development of present programs.
- o Provide information which will be helpful for designing and conducting new MI programs.

These objectives dictated detailed review and reporting. A Summary & Conclusions section is provided for review by decision executives. The detailed Presentation of Data section is recommended for managers and supervisors who are actively engaged in planning or conducting MI programs in NASA.

Data for the paper was developed from reviews of the Headquarters, Manned Spacecraft Center, Marshall Space Flight Center and MI programs of fourteen other agencies. Interviews were conducted with Management Intern Program Directors, NASA managers who have former interns assigned to them, former interns, including some who have left NASA, and with groups of interns presently in the programs. Statistical material from the U. S. Civil Service Commission on the 1965-1966 MI programs and descriptive materials for other agency programs were reviewed and pertinent data included.

Comments, ideas, suggestions and criticisms from these sources were numerous and invaluable in prescribing the main-stream direction of the paper.

## SUMMARY

### Management Intern Programs

In 1955 the U. S. Civil Service Commission established a special examining program designed for identification and attraction of entry level administrative-management talent. The examination is titled "Management Intern Option - Federal Service Entrance Examination." The program is based on earlier Commission and agency successes with forerunner programs like: Junior Management Assistant; Junior Professional Assistant; Junior Administrative Technician; etc.

- o The purpose of these early programs was:

"To attract and develop high potential talent for increasingly heavier responsibility."

- o Today, the objective is much the same:

"The purpose of the Management Intern Program is to attract and develop those college-calibre men and women who show genuine promise for growth to the top career positions in the Federal Government."

From a rather modest beginning in 1956 the Federal Management Intern effort has grown considerably in size and scope. Participating agencies sponsored a total of twenty-eight programs during 1966-1967. Additional programs are being established for the up-coming program year.

Many employees who entered Government service through such programs hold high level positions today. These dedicated civil servants would probably have moved upward to these positions regardless of whether they entered Federal Service in this manner or not.

- o The important fact is that an examining process identified them, a program attracted them, and the training helped them start their careers in a visible, developmental environment.

The examination and development process are recognized as outstanding by many Government officials. However, the processes do not guarantee management success. Successful development of managers is characteristically a function of the individual and the long-term care with which an agency pursues these types of programs. Management Intern Programs are usually a year long. They include such developmental features as orientation, rotational job assignments, speciality development, tours, seminars, academic work, readings and reporting. Some include orientation field visits as a normal supplement to MI training.

#### NASA's Present Position

Headquarters and the Manned Spacecraft Center began programs in 1962. Goddard began a cooperative venture with Headquarters in 1964. Marshall Space Flight Center started one in 1966. Electronics Research Center is beginning a program for the 1967-1968 program year.



The total number of MI's employed and target numbers in NASA programs for 1967-1968 follows:

	<u>Employed to Date</u>	<u>67 Target Numbers</u>
Goddard Space Flight Center	4	4
Headquarters	40	15
Manned Spacecraft Center	54	15
Marshall Space Flight Center	6	10
Electronics Research Center	<u>0</u>	<u>4</u>
TOTAL	104	48

The Potential for NASA

It is not the purpose of this paper to advocate the establishment or continuation of Management Intern Programs. That decision should stem from an identification of need for manpower of this type and general calibre.

- o However, NASA managers should recognize the potential that the program has for identification, attraction, and early development of successful administrative-management employees.

MI programs, when put squarely in perspective, certainly do not hold all the answers to agency needs for top administrative-management talent. However, it is quite reasonable to expect that a number of MI's will indeed, continue to

reach the higher levels of responsibility in NASA and the Federal Government. The chances are good of identifying top talent in MI groups. The difficult task is guiding MIs, not only through the first year, but providing a continuing developmental opportunity as long as they respond.

Success here depends upon the excellence of program administration and the management commitment to developing young talent.

NASA has a valuable resource in all its young, talented scientific, engineering and administrative-management people. Some of the latter group are former MIs.

- o A recent study of separations in NASA indicates that the loss rate is highest for NASA's younger employees, particularly in the administrative-management occupations.

This indicates a need for more follow up on the careers of the young NASA people particularly those who have demonstrated exceptional talent or potential and who continually respond to challenge. Young people of this calibre do not require a "welfare" development program, an easy staircase to the top, to succeed, they emerge, develop and thrive in an environment of open competition, positive opportunity and challenge.

- o Thus, NASA should concern itself with a prolonged effort to identify these talented people and challenge them to the edge of their capability.

These people can then be expected to earn their way and grow to positions of highest contribution. Many management interns should be expected to earn their way into such a group.

## CONCLUSIONS

Management Intern Programs not only can function well in NASA, they can be counted on to be a continuing supply of highly talented administrative-management people.

There are controllable conditions under which MI programs will best serve some of the agency long range manpower requirements:

- o The objectives and the plan must be clear, concise, agreed to and logically supportable by both high level and intermediate levels of agency and center management.
- o At least one policy level individual's active guidance of and participation in the program is vital to its successful conduct and maximum service to an agency.
- o MI programs thrive for the longer term only when their products earn stature in the eyes of management. A program being "given" status at the outset is very helpful but will not alone sustain the value.
- o The MI program director must be responsible for and have commensurate authority to react in the best interests of the program, the NASA mission and at the appropriate organizational levels.
- o MI programs must be conducted for the benefit of the agency. Growth and benefit to the individual MI is a result of the developmental process.

An MI program is most effective when it is conducted as a time-experience compression process with built-in opportunity for successes and failures, and it includes critique of events which surround them.

It is highly essential that MI programs be tailored in concept and detail to the identified manpower needs and resources of an agency or Center. There definitely is not a standard program pattern nor one-best-way of conducting programs.

There are alternatives to conducting MI programs which can be effective within NASA.

- o Select people with the highest possible administrative potential from the FSEE register and formalize a broadening program to be completed ahead of their going to permanent assignments.
- o Actively recruit top potential young administrative talent from other agencies and from research and development industry and business.
- o Carefully watch for emergence of young highly capable administrative performers. Prepare and conduct a broadening effort at least long enough to adequately evaluate the employee's response to the program and then move in the dictated direction.
- o Conduct administrative testing within the agency or center under an agreement with the USCSC which allows distinct career development opportunity for those who are successful in the examination.

Installations can of course, implement various combinations of the above.

## PRESENTATION OF DATA

### The Examination

#### a. The Process

The Management Intern examination includes the standard Federal Service Entrance Examination, the MI written examination, an oral problem solving examination, and a personal interview by two examiners. Reference checks are, of course, an important portion of the process.

The FSEE written examination attempts to measure an individual's verbal abilities and quantitative reasoning capability. The MI written examination tests reasoning ability against problems of public administration. The MI oral exam tests a candidate's competence in problem solving, his capability to function in a work group, and to a degree, displays his leadership potential. The personal interview helps access the candidate's motivation, degree of dedication, and provides an opportunity for the examiners to round out the individual's total qualification profile. Success in this process earns candidates eligibility for consideration in one of the Federal management intern programs.

b. The Wash-Out Rate

The MI examination process is well known as a severe, highly selective screening up process. The wash-out rate is extremely high.

During the 1965-66 MI examination process, 25,997 candidates took the written MI examination. Only 9% or 2,330 passed this initial phase. Of these 2,330, 1,740 were present for oral examination and personal interview. 633 passed the oral examination process and were granted eligibility.

In the end only 2.4% of the original 25,997 potential candidates were found acceptable for final eligibility.

The Register

a. Content

The 1965-66 Management Intern Register is considered typical of registers in recent years. Analysis of that register provides data of interest to MI Program managers and recruiters:

1. 44% of the eligibles had completed at least one degree and were in work situations at the time of application.
1. 32% of the eligibles were in graduate school pursuing advanced degrees.

3. 22% of the eligibles were near completion of undergraduate degrees.
4. 2% of the eligibles were at least one year away from completing their undergraduate degree.
5. Six Ph.D, 258 masters, 41 law and 307 bachelor degree holders won eligibility.

b. Disciplines Represented

The college discipline distribution for eligibles in 1965-66 follows:

Political Science and Government	216
Social Sciences	214
Economics	119
Business Administration	99
English Literature and Foreign Languages	50
Public Administration	30
Engineering, Mathematics & Physical Sciences	31
Biological Sciences	6
and Miscellaneous	101

c. Register Frequency

Two registers are established each Spring, one in February and one in April. Both are in effect until late January of the following year.



d. Availability of Prospects

In 1965, only 276 of the 633 eligibles were appointed to management intern positions; 105 at the GS-7 level; 171 at the GS-9 level. There are several reasons for the number of appointments being so small. Many of the MI eligibles receive and accept attractive offers from business and industry, universities, and state and local governments. A large number choose to remain in school for graduate work. A number are already working in their profession and choose to remain where they are. Others do not wish to relocate. Twenty eight different MI programs competed for the 276 eligibles appointed during the 1965-66 period.

Recruiting

a. An Overview

The actual process of MI recruiting begins with the release of the USCSC MI register for review by the agencies.

The review is four days long. All interested agencies attend. Each agency is free to contact, recruit and select those MI prospects that interest them. Some agencies mail information to everyone on the list. At the other extreme are the agencies that contact only those eligibles with certain specialized experiences or training.

Initial contacts are made in various ways ranging from form letters to personal phone calls.

Each agency uses techniques which they believe will serve their own interests. Those agencies who have personalized their effort, reacted the quickest, and gave every indication that they know exactly what they are doing seem to fare best in attracting MIs.

Some additional observations concerning various recruiting activities are reviewed in the following paragraphs.

The Agency representatives at the register review should be armed with an excellent knowledge of his program, his agency mission and its need for MIs. Retention rates, preferred academic training, where recruiters may travel, age guides and other profile factors for NASA MIs are all very worthwhile.

Many agencies find that participation in the USCSC oral examination process is an excellent entree to advanced candidate contacts. None have made agency recruiting "pitches" during the orals but have gained the advantage of personal contact before the register is released.

Some agencies conduct hard-sell, glamorized recruiting programs. Some conduct board-of-inquiry, grill-the-candidate type of efforts. Neither approach proves consistently effective. A middle of the road, factual, soft-sell approach seems to work quite well. Regardless of the approach, selling the agency is necessary. The typical MI does not have extensive knowledge of the agency, its programs, nor its people. Indeed, prospects may not even know that NASA has management intern programs.

Agencies contacted in the review indicated that they are recruiting for long-term tenure of MIs for their own agency. The philosophy of "recruiting for the good of the Federal Government" is secondary. They feel that if they do an outstanding recruiting job for their agency, the Federal Government benefits in the total sense.

b. NASA Recruiting Locations

As discussed here, recruiting location refers to the locale in which an actual hiring interview was held as distinguished from visits to universities and so on.

Headquarters has conducted its hiring interviews almost entirely in Washington. Interns were employed on one trip each to Boston and Los Angeles during the five years of MI interviewing effort.

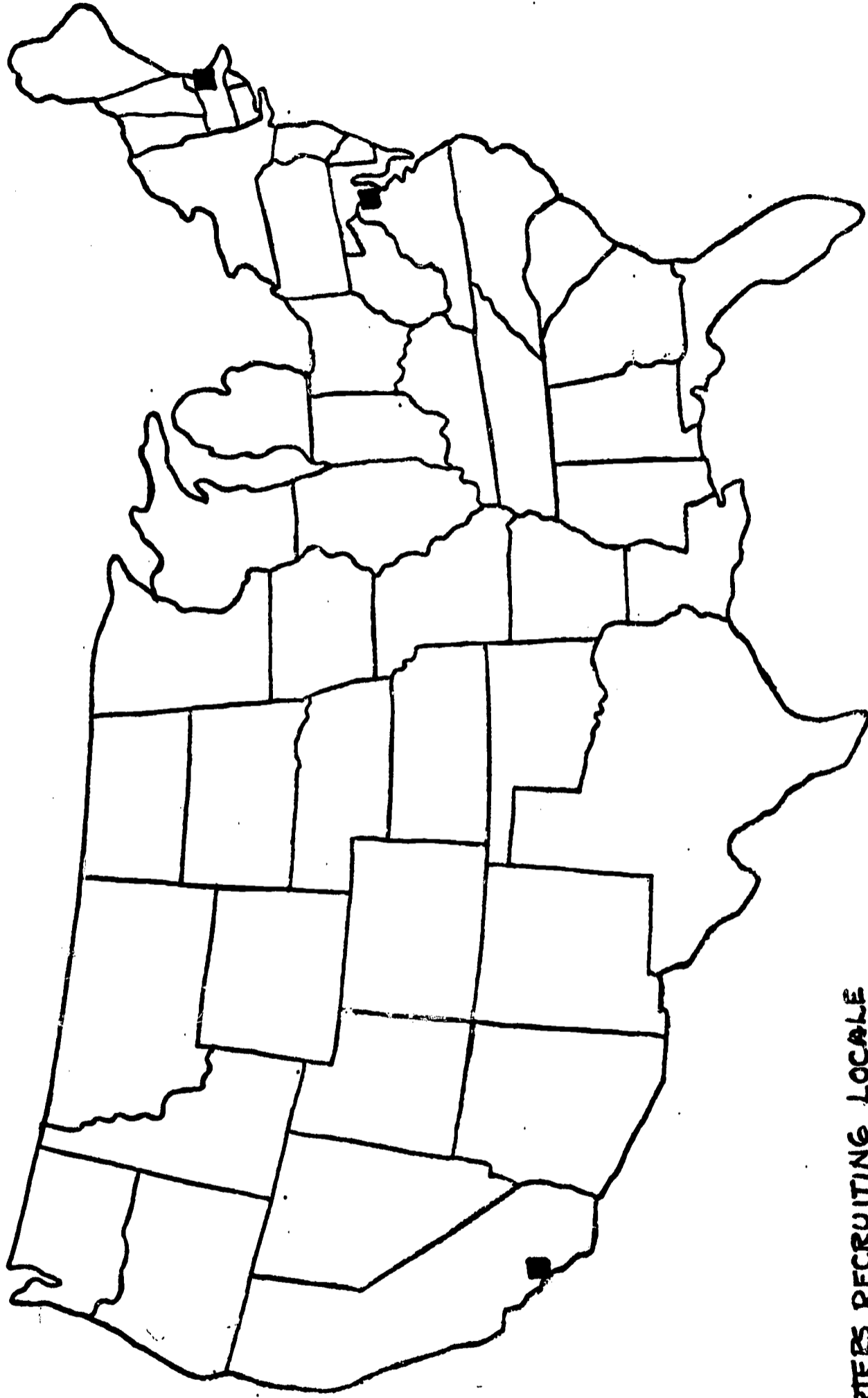
In contrast, MSC has employed MIs largely by interviewing at or near the location of the MI. MSC directs its heaviest effort to the middle and western Great Lakes States area and the West Coast. When a prospect is nearby, he is asked to travel to MSC.

Marshall Space Flight Center established a target of six MIs for its first program, all to be from the southeast area of the United States. The Program Director recruited in Tennessee, Georgia, and Louisiana for part of the group and interviewed at Marshall for the rest.

NASA-wide, MI recruiting is approximately a 52% travel-for-interview effort.

Charts I, II, III, and IV display the geographic spread of MI recruiting by the three MI Programs and NASA as a whole.

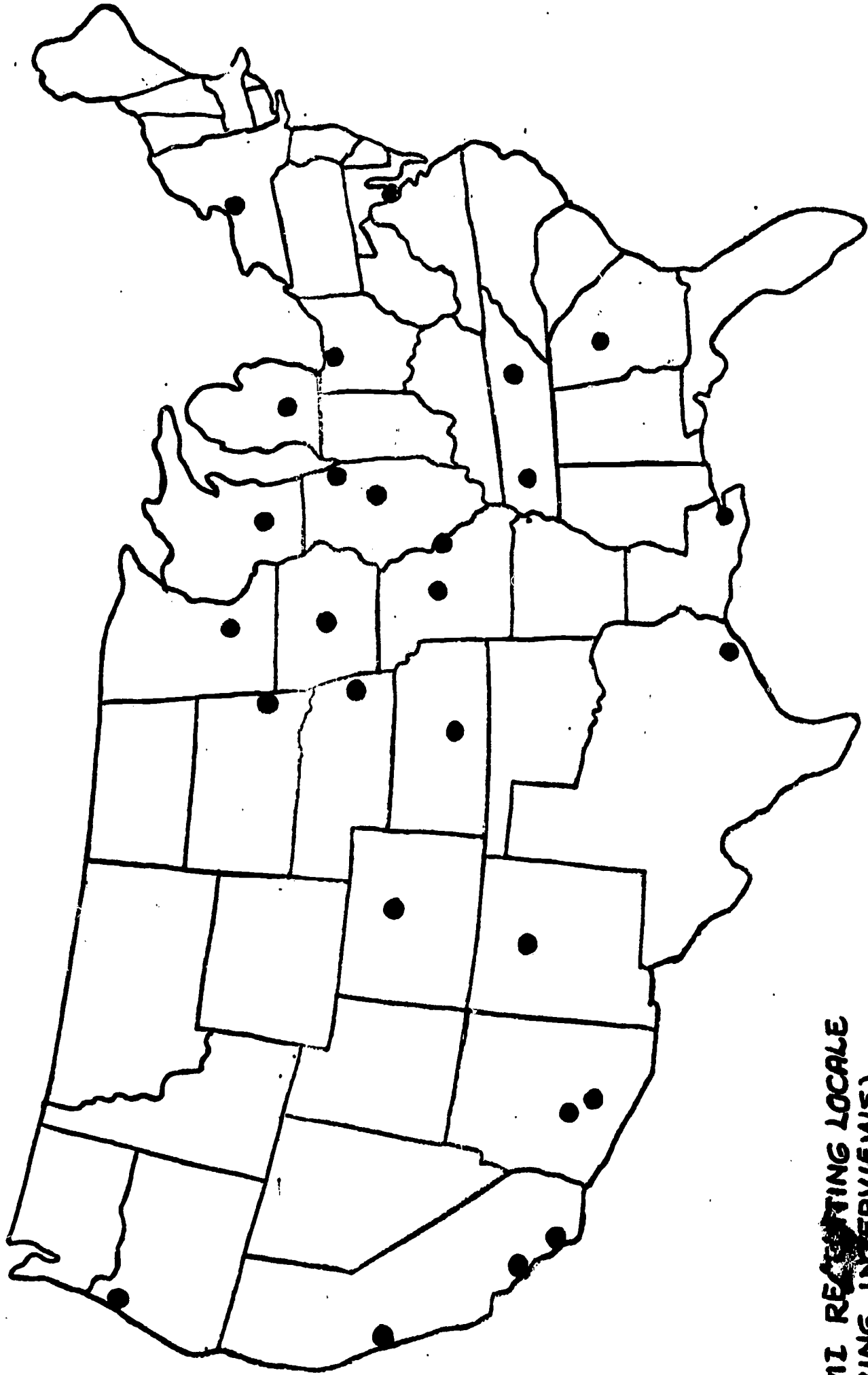
Chart I



HEADQUARTERS RECRUITING LOCALE  
(HIRING INTERVIEWS)

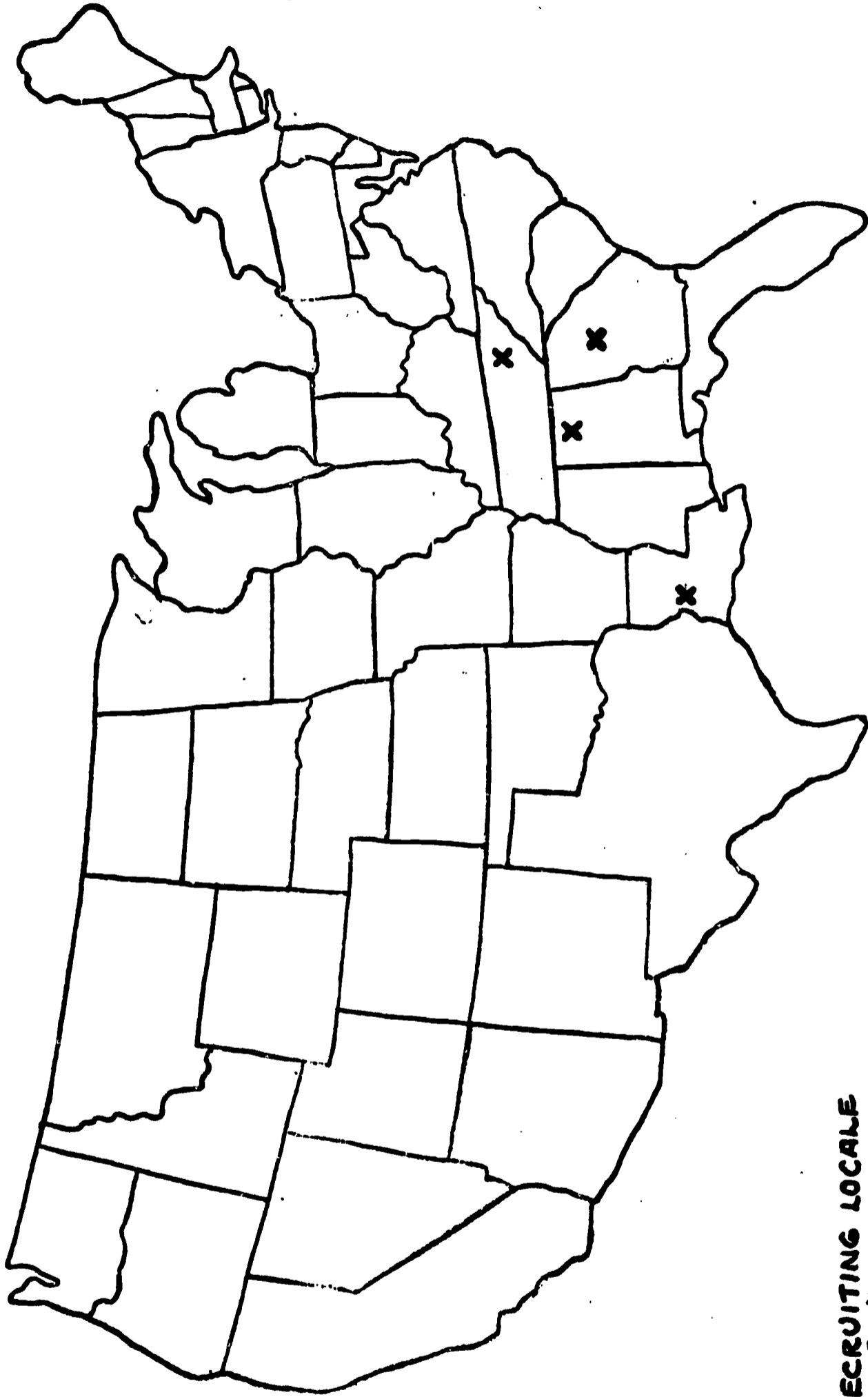
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Chart II



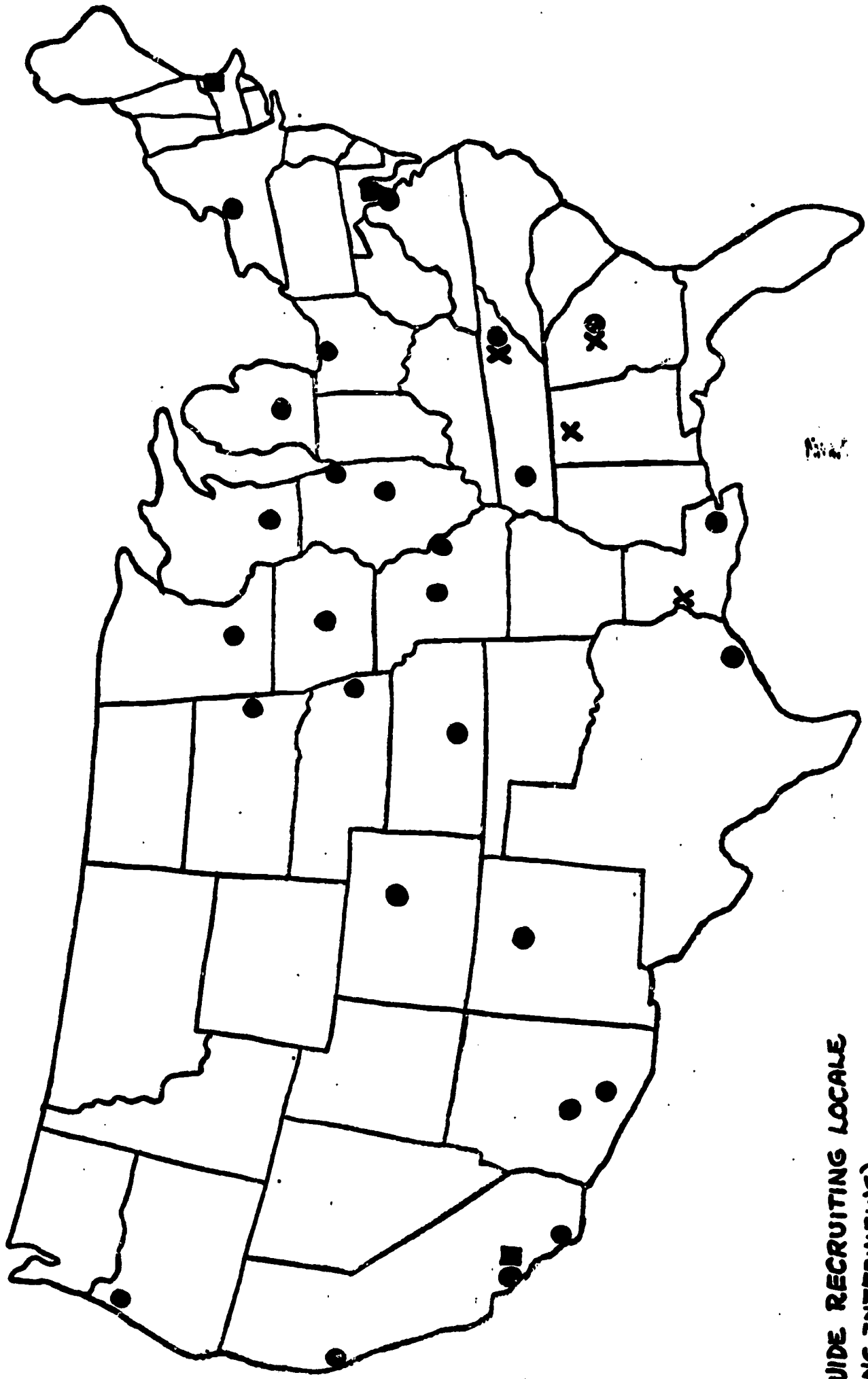
MSC MI RECRUITING LOCALE  
(HIRING INTERVIEWS)

Chart III



**MSFC RECRUITING LOCALE  
(HIRING INTERVIEWS)**

Chart IV



NASA-WIDE RECRUITING LOCALE  
(HIRING INTERVIEWS)

- = HEADQUARTERS
- = MSC
- X = MSFC



c. The Competition

Data on recruiting competition was obtained from group interviews with MIs presently in one of the three NASA programs and each group at the Manned Spacecraft Center since 1962. Two questions were asked. The questions and summarized responses follow:

- o What recruiting devices did agencies other than NASA use which impressed you and caused you to at least consider entering their program?

"They usually seek to establish a positive personal touch as quickly as possible. This is demonstrated through telephone contacts, personal letters and attention to details." Other important points the interns spoke about are: "early interviews, quick reaction and offers of positions, describing the employment and living situations accurately, interviewing in the MI's locale, accepting collect phone calls and sending out high quality, succinct, materials."

- o What things did agencies other than NASA do which made you feel sure you were not interested in entering their program?

"Sending out form letters; using interviewers (occasionally top managers) who are not familiar with their own program; using a "red carpet treatment;" taking too much time between the initial contact, the interview, and the

offer; too many people from the same agency contacting the MI with conflicting stories; not stating clear program objectives; and, being unwilling to discuss the long-range employment situation."

d. University Relations

Most agencies do little at the universities in the way of student interviewing, specifically for Management Intern Program recruiting purposes. Those that do, generally cannot correlate their efforts with eventual hires into their programs. The MI examination wash-out rate is so high that it is nearly impossible to predict successful MI candidates in a given university class.

Faculties are very effective in informing their students about MI programs and about their impressions of various agencies and personnel.

A study was completed at MSC in 1964 and student interviews for this purpose were considerably curtailed. Stronger attention was focused on faculty relationships. This change in emphasis seems to be paying off in quality recruitment. Students are contacted now during college visits almost solely at the suggestion of the faculty.

MSC Management Intern Program managers make a point of visiting faculty whenever they are near the universities on other business and carefully include their contacts on mailing lists which announce the MI and other MSC programs.

The list on the following page of colleges and universities attended by NASA Management Interns demonstrates the problem of establishing strong ties with MI producing schools other than on a very selected basis.

The following charts V, VI, VII, and VIII display the geographic spread of colleges and universities attended by NASA Management Interns.

Colleges and Universities Attended by NASA Management Interns

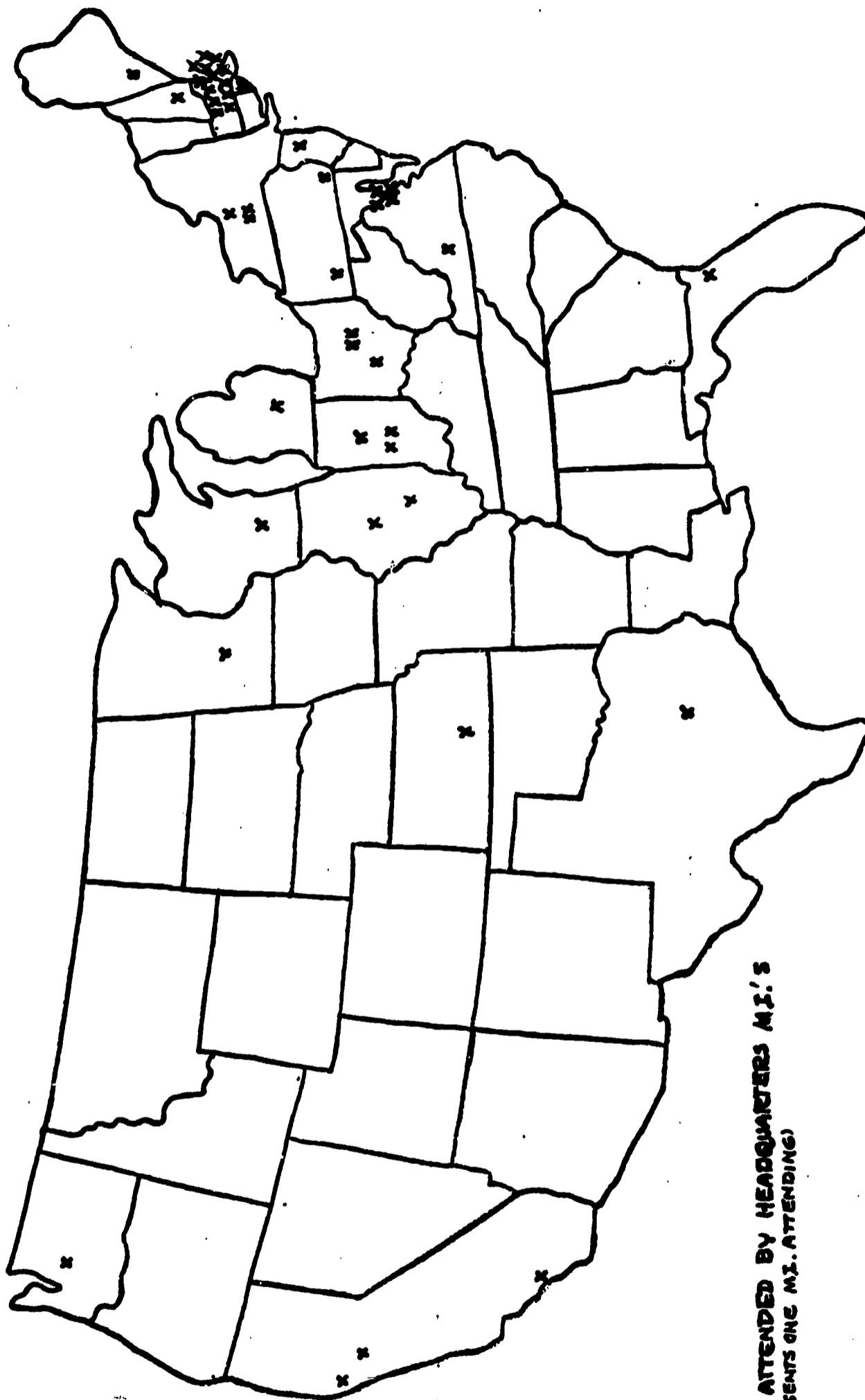
Note: A number of NASA MI's attended two or more schools.

Headquarters

<u>College or University</u>	<u>No. Attending</u>	<u>College or University</u>	<u>No. Attending</u>
Marymount	1	Wooster	1
Boston	1	Fletcher	1
Wellesley	2	UCLA	1
Princeton	1		
Florida	1	<u>Manned Spacecraft Center</u>	
Antioch	1		
Whitman	1	Syracuse	2
Harvard	3	Minnesota	6
Virginia	1	Texas	4
Cornell	2	North Texas State	1
Radcliffe	1	Oregon State	1
Ohio State	1	Northwestern	1
Indiana	1	Tennessee	1
Brown	2	Kentucky	1
Pittsburg	1	Alabama	1
George Washington	3	Houston	2
Yale	3	South Dakota	2
Texas A. & M.	1	Trinity (Texas)	1
Wisconsin	1	Lamar State	1
San Francisco	1	Colorado State	2
San Jose State	1	New Mexico	1
Holy Cross	1	Brigham Young	2
Columbia	3	Arizona State	1
New York	2	San Diego State	1
Trinity	1	Washburn	1
Syracuse	2	Kansas	1
Smith	1	Chicago	1
Quincy	1	California (Berkley)	2
Minnesota	1	Nebraska Wesleyan	1
Kansas	1	Arizona State	2
Lake Forest	1	Southern Methodist	1
Dartmouth	1	Colorado	3
Michigan	1	Shepard	1
Bowdoin	1	Central Methodist (Mo.)	1
Massachusetts	1		
Wesleyan	1		

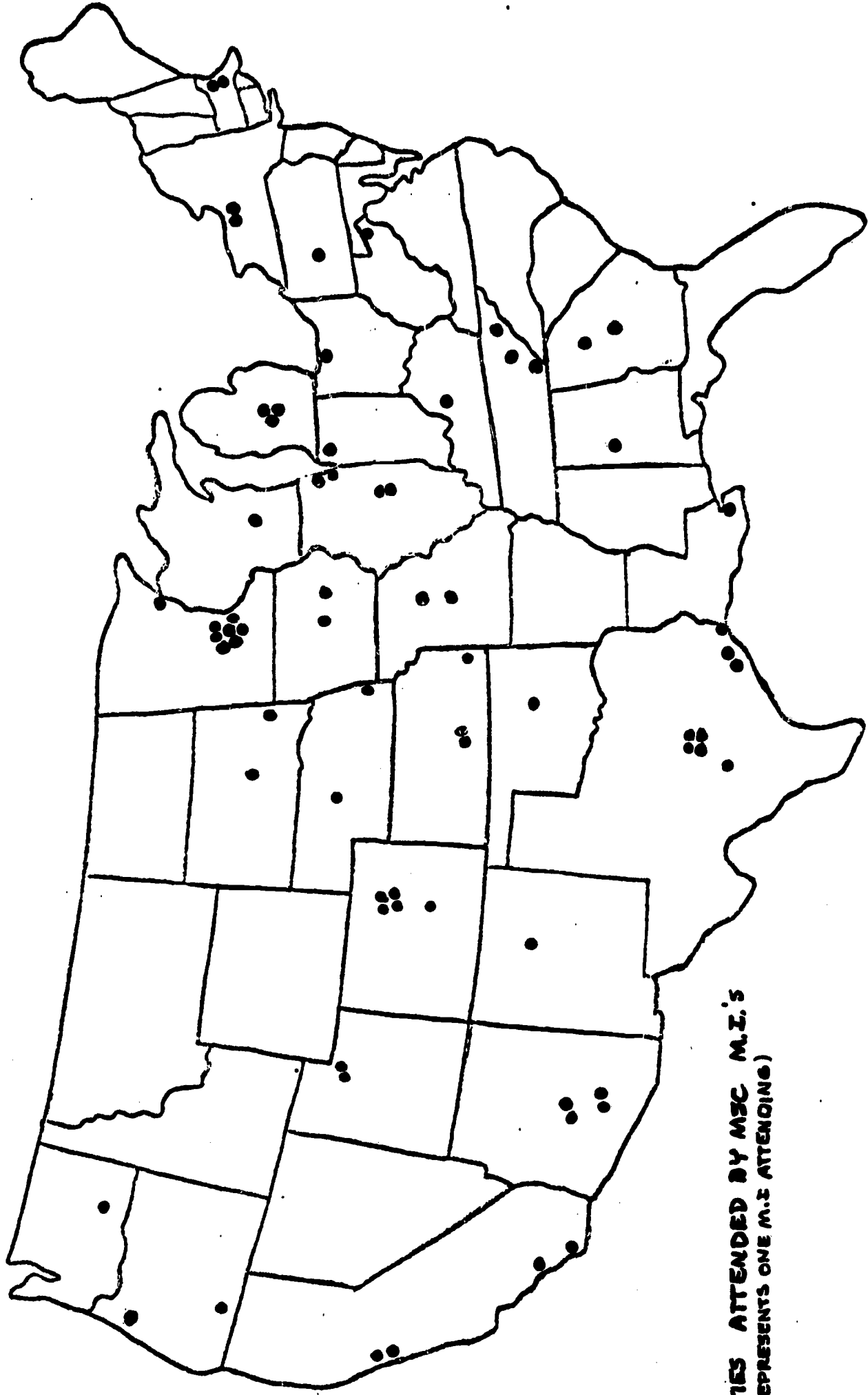
<u>College or University</u>	<u>No.</u> <u>Attending</u>	<u>College or University</u>	<u>No.</u> <u>Attending</u>
Oklahoma State	1		
Missouri	1	<u>Marshall Space Flight Center</u>	
Wooster	1		
Wayne State	1	Memphis State	1
Michigan	1	West Virginia	1
Wichita	1	NcNeese State	1
Tulane	1	Mercer	1
Mercer	1	Wolford	1
Georgia	1	Furman	1
Augsberg	1	San Francisco	1
Notre Dame	1		
Illinois	4		
Iowa State	1		
State of Iowa	1		
Arizona	2		
Denver	1		
Smith	1		
Nebraska	1		
East Tennessee State	1		
George Peabody	1		
Lewis & Clark	1		
Wellesley	1		
Mass. Institute of Tech.	1		
UCLA	1		
Washington State	1		
Wisconsin	1		
Pennsylvania State	1		
Michigan State	1		

Chart V



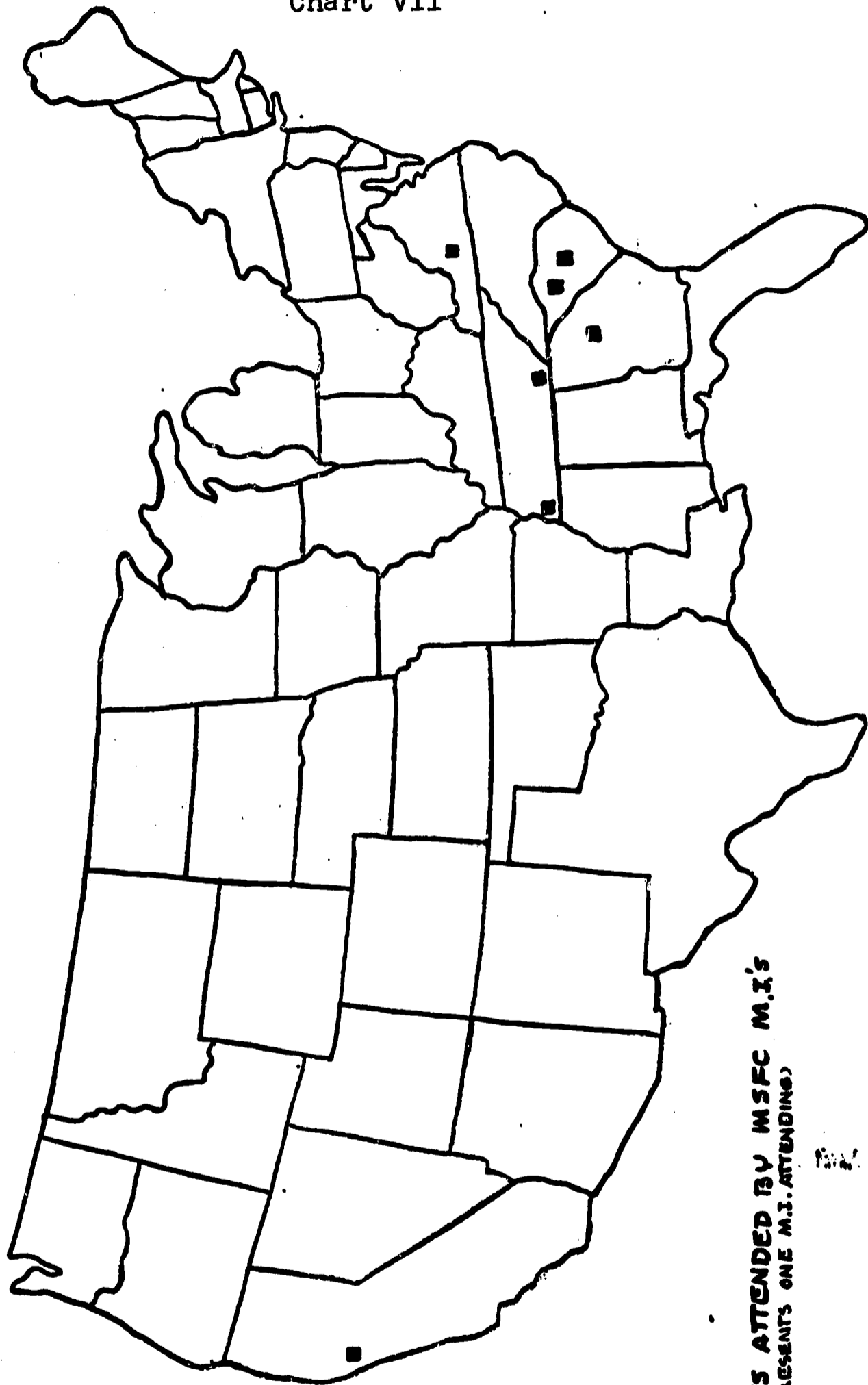
UNIVERSITIES ATTENDED BY HEADQUARTERS M.I.'S  
(EACH X REPRESENTS ONE M.I. ATTENDING)

Chart VI



UNIVERSITIES ATTENDED BY MSC M.I.'S  
(EACH DOT REPRESENTS ONE M.I. ATTENDING)

Chart VII



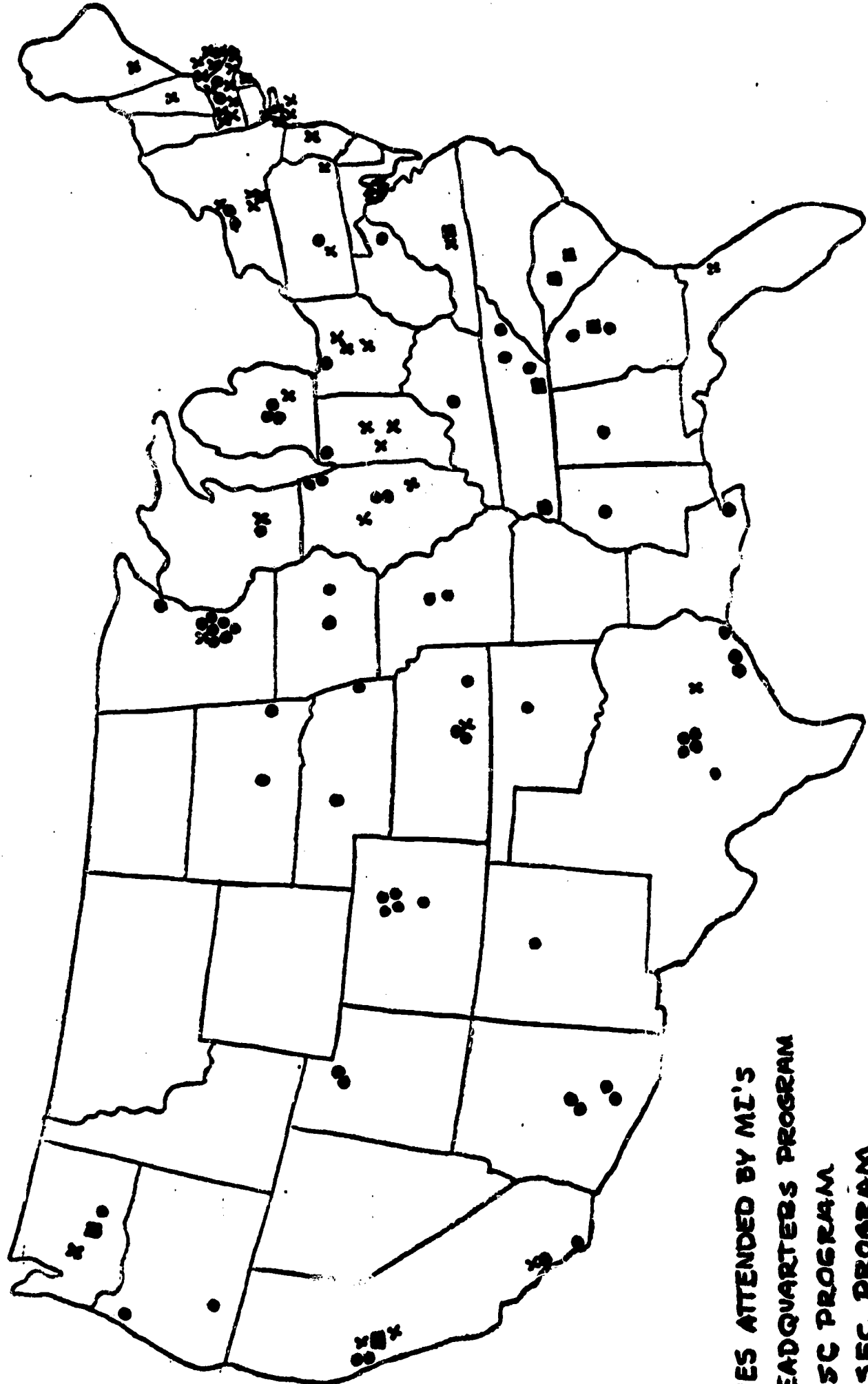
UNIVERSITIES ATTENDED BY MSFC M.I.'S  
(EACH ■ REPRESENTS ONE M.I. ATTENDING)

1954

D. E. Clark



Chart VIII



UNIVERSITIES ATTENDED BY MI'S  
X : HEADQUARTERS PROGRAM  
O : MSC PROGRAM  
■ : MSFC PROGRAM

## Management of the Program

### a. Organization for an MI Program

#### 1. The Program Director

The most successful MI programs have a strong individual who serves as the program director. He is charged with directing all facets of the program from liaison with the USCSC and recruitment through follow-up activities with former interns. The director most often is organizationally located with a training element of the personnel office. He devotes full time cognizance and a little more than one third of his time in active engagement with program activities on an annual basis.

#### 2. Top Management Cognizance

Very often there is a policy level executive who is depended upon for policy, general guidance, and liaison at the uppermost levels of agency management and who provides high level contacts with other organizations to benefit the program.

#### 3. Top Management Advisory Boards

There is minimal use of formal boards in the various Federal programs. Boards, if used, generally

function in placing MIs in permanent assignments, and approving program concept, structure and policy on an ad hoc basis. They are not usually working boards per se.

#### 4. Organization for Coordination

Most agencies have identified several employees within their organizations who accept the informal role of coordinator of MI program affairs for their particular element of the organization. Usually, these coordinators are ex-MIs. They insure good rotational assignments, effective scheduling and perform follow-up with the MIs. In this capacity they work directly with the MI Program Director representing their organizational manager.

#### 5. Organization for Selections & Employment

In many programs, the responsibility for MI selection and employment responsibility is centered with a very small group of managers who are recognized throughout their organization for their proven ability in selecting and developing professional administrative-management employees. This group is assisted and guided by the Program Director.

The group does not function as an interview committee. Rather, any one of the managers accepts full authority to select and employ MIs on-the-spot for his agency. In nearly every instance, the MI Program Director has this authority either delegated or assumed and functions as a full member of the selection and employment group. There are different methods ranging from a one-man-show to full participation by a committee of top management. Most agencies, however, ultimately adjust to some semblance of "the small highly reactive group."

#### 6. Committee Interviewing

Committee or consensus action in interviewing has been tried as standard practice at one time or another in most agencies conducting MI programs. In nearly all, this approach has eventually been abandoned for one or more of the following reasons:

- o Multiple interviewing takes more of the MI prospects time with one agency than he can easily spare from his job or school.
- o Committee interviewing, whether it be by a panel or individually, frequently leaves the prospect with an impression that an agency cannot or will not delegate.

- o Redundancy creeps into multiple interviewing and is viewed as wasted time by the prospect.
- o Conflicting committee member opinions must be resolved before a response can be made to the prospect and thus reaction time is extended.
- o High level managers so often appointed for these interviewing duties are frequently not available when they are needed.

#### 7. MI Organization - NASA

NASA is uniquely organized for management interning. Though some large Federal agencies have established fairly autonomous field programs, none have decentralized them to the degree that NASA has. Most agencies have a single MI program to serve their headquarters, their bureaus, and field installations alike.

The nature and strength of the present three NASA MI programs, individually tailored to their own installation needs, suggests that very little immediate or long range benefit could be achieved through centralization,

#### 8. Centralized Assistance

With the growth of programs at the NASA Centers more attention should be given to establish a capability to provide over-all staff assistance from the

agency level. An individual assigned this role would serve to support the various program directors. Looking further ahead, such an individual might well serve by providing on-the-scene assistance with assignments of interns and ex-interns to Headquarters, or between centers for work assignments or developmental activities.

b. Clearer Objectives for MI Programs

An ad hoc MI Program Review Committee proposed to the USCSC in mid-1966 that announcements of future Management Intern Programs subscribe to a single objective for the Federal Management Intern Program:

"The purpose of the Management Intern Program is to attract and develop those college-calibre men and women who show genuine promise for growth to the top career positions in the Federal Government."

Published objectives for individual management intern programs often only restate or rehash this broad, general objective. They seldom provide specific goals or guideposts needed to conduct an agency program. A strong need exists to establish clear working objectives for this purpose. This need was

identified in NASA programs as well as in programs of other agencies that were reviewed. Agencies who operate successful programs have spent a great deal of effort in defining and communicating specific working objectives.

NASA MIs frequently have asked where the various program elements are to lead. Managers, particularly those who immediately supervise MIs during rotational training, do not necessarily know as much as they need to about the program pattern nor working objectives. Working objectives must be clearly communicated to the MIs. Further, they must be fully understood and subscribed to by all managers involved in the program.

Working objectives should define or explain specific program actions or expectations. To illustrate the point, a few examples of working objectives are outlined below:

- o The program will expose the MI to the realities of management problems, analysis, and decision and provide means for him to live through not only the management process, but with the consequences of his part in the process.
- o Job assignments for MIs during rotational training should be made to benefit the assigning organization. Benefit to the MI is an expected result, not the primary consideration.

- o Rotational work assignments should demand the most of the MI's capability. The MI is to be held responsible for accomplishment and results. Successes and failures are to be communicated to the program director.
- o The MI program is to be a period of intensive challenge for the MI. The agency should expect the highest possible level of production and quality.
- o The MI program is to be conducted as a maturing process which seeks to prepare an assumed high potential employee for future difficult assignments in the shortest time.
- o The agency should expect and receive from each MI in the program his full allegiance and dedication to the mission.
- o Recruiting must be positive, decisive, and responsive to the agency needs and to potential candidates.
- o The agency will dismiss or transfer from the program, MIs who do not exhibit satisfactory or better performance in the program.

c. Selection to Meet Objectives

The following criteria for MI selection is based on a "profile" of MIs who have tended to remain with and succeed in NASA. The criteria are typical of those currently followed in NASA and most other MI programs.

1. Generalist vs Specialist

MIs coming to NASA should have widely diversified interests and an innate curiosity about all of the organizational programs.

However, they should be interested in early



specialization and through specialization, expect to earn their way and grow to a generalist capability.

## 2. Management

MIs entering NASA should expect to orient to program management as opposed to a long term career of "doing" even though they should expect to be "doers" first.

## 3. Age

Data indicates that MIs, ages 26 and over, tend to settle down faster and stay with the agency longer. This is considered to be a function of maturity. Implicit also, is the fact that MIs, 26 and over, more often than not, have spent a year or more in some work environment. This valuable experience provides a realistic outlook toward their professional career goals.

## 4. Motivation

MIs, to be successful in NASA, must be able to dedicate themselves to vigorous,

enthusiastic work in program and organizational areas which support the technical and scientific main-stream efforts. Their aspirations must be toward earning management positions in the support activities, not the main-stream technical programs.

#### 5. Flexibility

A NASA MI should have personal flexibility which allows rapid adjustment and re-adjustment to a number of immediate supervisors, different organizational missions, and a wide diversity of task assignments. Yet, he must maintain enough drive to accomplish his duties and gain the most from each work-experience situation.

#### 6. Attitude

MI recruiters should attempt to gage a prospect's level of self esteem. MI prospects are subjected to a shower of praise during recruiting by the hard-sell programs. Frequently, the glow of this promise carries over into the training programs the MIs enter and sometime causes

problems within the selecting agency. Good MI candidates should possess a high level of self-esteem - it confirms a realistic appraisal of their own abilities and potential and reflects a state of good mental health. Problems that might arise from this attitude, common among MIs, can normally be handled or avoided through skillful orientation and counseling.

However, some candidates project an extremely inflated, totally unrealistic view of their own importance and value. These candidates should be approached with some caution. If selected, they should be earmarked for special effort to insure proper adjustment.

This extreme attitude is generally most prevalent among younger candidates who have not yet been involved in any realistic work situations. Unchecked, this attitude in one or more interns can be very destructive in an otherwise excellent developmental program.

d. Target Numbers and Personnel Spaces

Agencies that conduct the most successful programs establish a target number of MIs to be recruited based

upon a forecast of using organizations for one year or more ahead. These forecasts do not require using organizations to commit spaces or contract to accept MIs. On the other hand, the MI program is not absolutely committed to provide a specific number of interns to a particular organization. There are exceptions to this concept in a few programs.

The number of problems with spaces for MIs seems closely related to how strongly an agency's management desires the program. Most program directors are provided with a specific number of "floating" or "overage" spaces to use during the program year. In many agencies, the interns are committed to various organizations about mid-way through the year-long program. They remain on the intern program space until the year is completed at which time they are moved to the receiving organization spaces as a permanent assignment. Should a space not be available in the receiving organization, the intern's "overage" space goes with him until such time as the organization can provide a space. The receiving organization is committed to providing a space for the intern at the earliest possible time.

Achieving a clear understanding and agreement on the method of handling spaces between the using office and the MI Program organization is a critical factor.

e. An Overview of the Training Program

MI programs are usually based on a specific allotment of time for various program elements. One or two programs are based on MI progress through GS grades to 11 or 12 regardless of time. The time based programs are ordinarily one year in length broken into segments to accomplish specific developmental assignments.

1. Orientation

All programs include some degree of orientation in the first few days of the program. These orientations range from formal briefings with the heads of departments or agencies and their top staff to informal meetings with the program director. The length of orientations varies from one-half day to as long as four weeks. The longer orientation periods include extensive briefings, seminars, tours and various other informational meetings and classroom work.

## 2. Rotational Training

Rotational training varies greatly from agency to agency. Some devote almost the entire training program to rotation. Some are rigidly scheduled, standard rotational assignment sequences; some are tailored as much as possible to the individual MI and agency needs for his potential capabilities. Other programs rotate the MI only until they find him a home. A number of agencies use only a portion of the year for rotation and the rest for specialization in one organizational area.

There are advantages and disadvantages with most of the schemes.

The year-long rotational program offers the advantage of minimally developing several specialties. It allows more in-depth examination of program activities and usually benefits the organizations more because the MIs are with them longer. On the other hand, the MIs often feel they are delayed far too long from performing substantive needed work and look longingly toward the day of permanent assignment.

Agency programs which emphasize MI placement in a permanent position after a very short

rotation period or none at all, realize maximum productivity at an early time. Obviously, they relinquish the breadth of development that an MI program is supposed to provide. Agencies which tend to compromise both these extremes very often realize most of the advantages and minimize some of the disadvantages. These programs emphasize breadth through rotational training and attend to speciality development through early permanent assignments.

The quality of work assignments during rotational training periods determines the quality of the overall program and, to a high degree, the quality of the program product.

### 3. Seminars, Course Work and Other Developmental Meetings

Most programs include related classroom or conference type developmental activity. Management Interns in the Washington area are usually enrolled in the USCSC MI Seminar Series where they meet and discuss problems with high level officials in Government, Labor, Business, etc. NASA Head-

quarters' MIs generally consider the seminars to be beneficial in providing an overview of government operations and activities. In addition, most agencies conduct their own MI seminar series to impart specific knowledge of the agency, its mission and progress. Some agencies conduct formalized short courses in management and administration closely allied to agency activities. This course-work is very well received by the MIs. Exposure to the management function during rotational training does not always provide the theory underlying the management processes at work.

A few agencies require their MIs to attend graduate level courses in public administration, management, psychology etc. to complement their program.

#### 4. Readings and Assigned Study

Nearly all agencies mention in their agreements with the USCSC that they require certain individual study and readings. However, it seems that few establish reading or outside study requirements. The few directors that do use this training



media, maintain that the readings program is highly beneficial to their agency through the hastened development of MIs.

#### Unique Activities in Other Agency Programs

The Management Intern Programs of other government agencies were surveyed by: interviews with MI program directors and analysis of recruiting brochures and written training program outlines.

Most of the programs have characteristics in common, such as; length of the program, usually one year; orientation and rotational exercises; recruitment practices, and use of published brochures for recruitment and in-house indoctrination.

All of the agencies which have conducted programs for several years report difficulty in recruiting in recent years. They attribute this to increasing competition throughout government and particularly, competition from the new agencies such as HUD, OEO, AID, and NASA.

Only unique features of other agencies' programs and special problems they have encountered are summarized below:

- o AGRICULTURE originally pursued a vigorous program but has relaxed this effort. They believe that the time and expense involved in the program outweigh the benefits to the Agency. They had repeated unfortunate experiences stemming from the unwillingness of interns to participate in realistic workday tasks.

- o AID recruited 62 interns this year. They hire with-  
out interviewing. The agency sees the program as a  
probationary period in which they assess personality,  
character traits, and attributes. If an intern lacks  
personal attributes necessary for executive develop-  
ment, his services are terminated or he is reassigned.  
AID does not attempt to retrain misfits.
- o AEC conducts a very active and successful program  
though not under an agreement with the Civil Service  
Commission. It has 75 interns in its current pro-  
gram consisting of specialists in law, accounting,  
finance, transportation and engineering etc. The  
recruiting officer visits on campuses. AEC does not  
use the CSC MI register.
- o BOB recruits on-campus for specific vacancies; doesn't  
send out brochures nor use the MI register. BOB  
attracts a number of former interns from other agen-  
cies since BOB is widely considered (among interns)  
an ideal place for development of the generalist  
career.
- o COMMERCE The Director, Office of Management and  
Organization recruits management analysis interns  
for all Bureaus of Commerce; arranges and monitors  
training assignments.
- o DOD The Office of the Secretary currently has 14  
interns. Recruiters for that office go to the  
campuses in the Fall, usually seven or eight trips,  
and again in the Spring, as soon as the MI registers  
come out. The OSD program is one year long, consist-  
ing of four weeks of orientation followed by six ro-  
tational assignments of not less than eight weeks.  
A minimum of eight weeks is considered essential be-  
cause of substantive, high level projects assigned  
to the MIs. The OSD Program Director feels that the  
type of work projects assigned their MIs and level of  
responsibilities they are given accounts for the posi-  
tive image of the OSD program. Trainees are always  
assigned to busy offices.

Another attractive feature of OSD's program is the  
work in the Office of the Assistant Secretary --  
International Security Affairs. About 50% of OSD  
interns accept permanent assignments in that office.

OSD has a very low turnover rate. They estimate that more than 50% of the OSD former interns since 1954 are still with DOD.

- o GEOLOGICAL SURVEY discontinued its MI program. A review of participation in their programs (JMA and MI) over a ten-year period showed that more than 90% of the ex-interns left the Agency within two years after completion of training. The survey concluded that it could not afford continued participation in an effort that offers so little payoff.

Reasons for the excessive turnover rate included: limitations on management careers in a technically oriented Agency, and failure of the Agency to plan a career ladder leading to responsible administrative positions.

- o HEW The Office of the Secretary, has a three-year program. 45 interns are now in training, 17 of who were hired for the 1966-67 program. HEW is especially proud of its interns' advancement to high level positions within the Agency and its low turnover rate. The training officer does informal followup on ex-MI progress.
- o HUD's program consists of 80 interns hired to regional offices in such specialties as housing, relocation, transportation, etc. Interns are rotated to Headquarters for eight weeks, then assigned to specific positions in regional offices.
- o IRS is considered to have one of the best MI programs in government. IRS hires about 20 interns each year, approximately one-half from inside the Agency (by administrative testing) and the other half from the MI register. Unusual features of the program are:
  - The internship is considered complete when the MI reaches GS-11 level.
  - A former intern is assigned to the Personnel Office to serve as Training Officer for the program. The ex-intern assigned to this duty is changed each year.

- The Assistant to the Assistant Commissioner, Administration, is designated "Director of the Management Intern Program." He acts as "managerial" sponsor of the Program and serves as the vital link between operating officials and top level Agency executives.

The Agency arranges attendance at a course in Management Functions and a special seminar in Behavioral Sciences. Further, IRS is liberal in approving other job-related in-house and outside training for the interns.

- o JUSTICE had had little success in recruiting this year. They did not send out publications. They feel that they failed in recruiting because they couldn't compete with the more glamorous agencies such as NASA, AID, and HUD.
- o NAVY recruited 21 interns this year. This program is one of the oldest and most successful in government. Key features include:
  - A detailed recruitment plan which emphasizes the importance of recruitment planning.
  - A directory of Navy ex-interns that proves useful both as a recruiting tool and for guidance of interns during training.
  - A questionnaire is circulated to former MIs each year to keep Navy management informed of their progress and to keep the directory up to date.
  - An intern is assigned to serve full-time as Director of the Management Intern Program.
- o OEO wanted 10 interns; got 6. They did not send out publications, but plan to do so next year.
- o POST OFFICE first year in program, recruited 24 interns; 14 were recruited from Washington, others were for the field. The POD program consists of three months of orientation followed by rotational assignments lasting from two to three years.

## Retaining MIs in the Agency

### a. Overview of Retention

Most agencies conducting management intern programs indicate long term retention of former interns to be a problem. The USCSC estimates that across government only about half of the MIs are retained by the hiring agencies longer than four years. However, they estimate that nearly three-fourths of all former MIs from the various programs have remained in the Federal service.

NASA scores relatively well when compared to the Federal service at large.

In NASA Headquarters, as of September 1966, thirty-two interns had completed their program. Twenty-two were still aboard for a rather high 68.7% retention rate. Further, 89.6% of all the former MIs from the Headquarters program were still with the Federal government.

In September 1966, thirty-nine MIs at the Manned Spacecraft Center had completed the program. Twenty-eight were still there for a retention rate of 71.7%. A few MSC MIs have transferred to NASA Headquarters establishing a MSC-NASA retention rate of 82.0%. 97.4% of

the former MSC MIS are still in the Federal government.

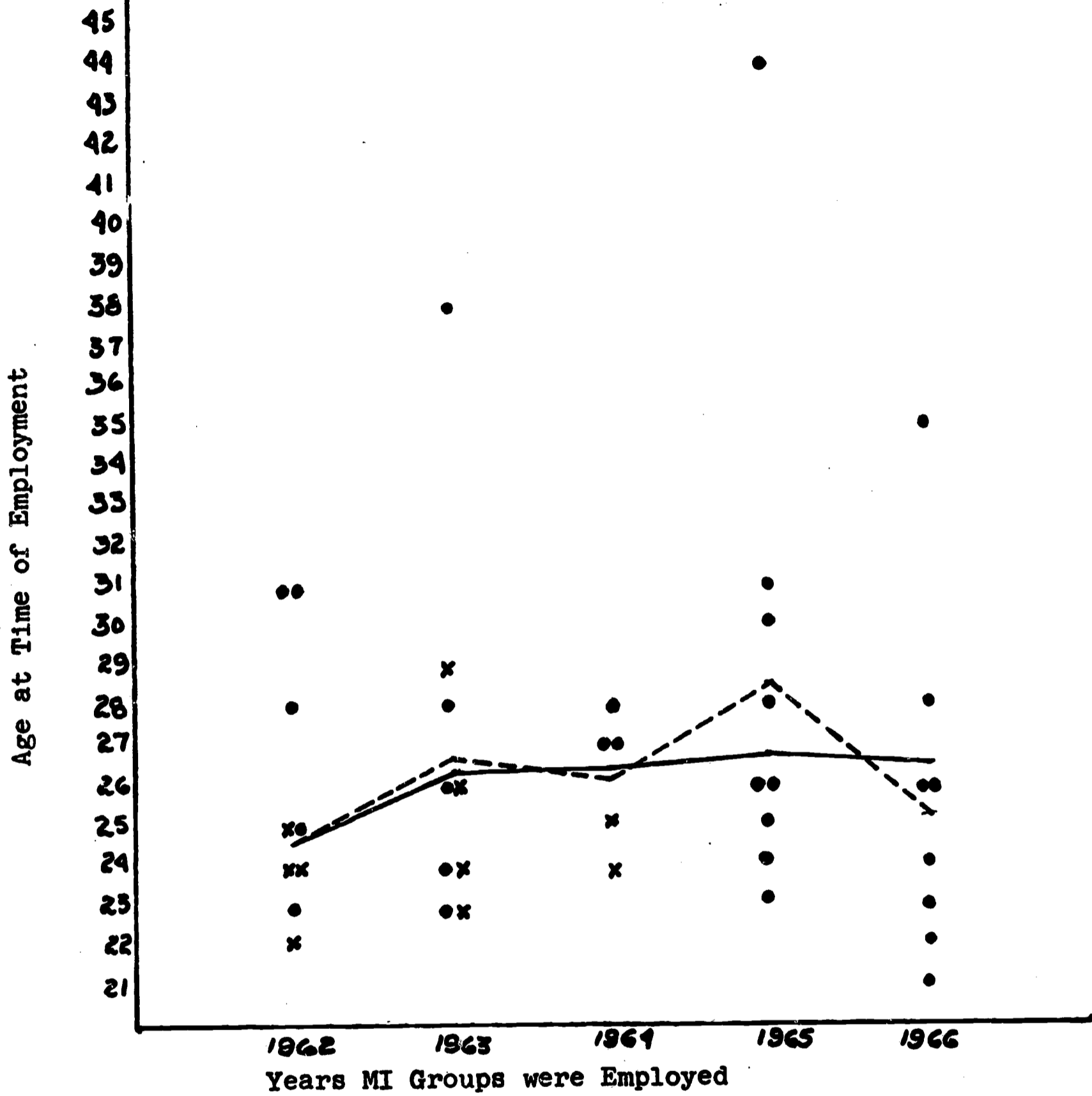
Marshall Space Flight Center is presently in their first program with six interns aboard.

Charts IX, X and XI attempt, on a very limited data basis, to correlate retention and age at time of hire. Of the 15 Headquarters former interns in the age bracket 25 or under, seven left the Agency by September 1, 1966.

Of 15 former MSC interns in that age bracket, seven have left. The average tenure for both these groups was about two and one-half years.

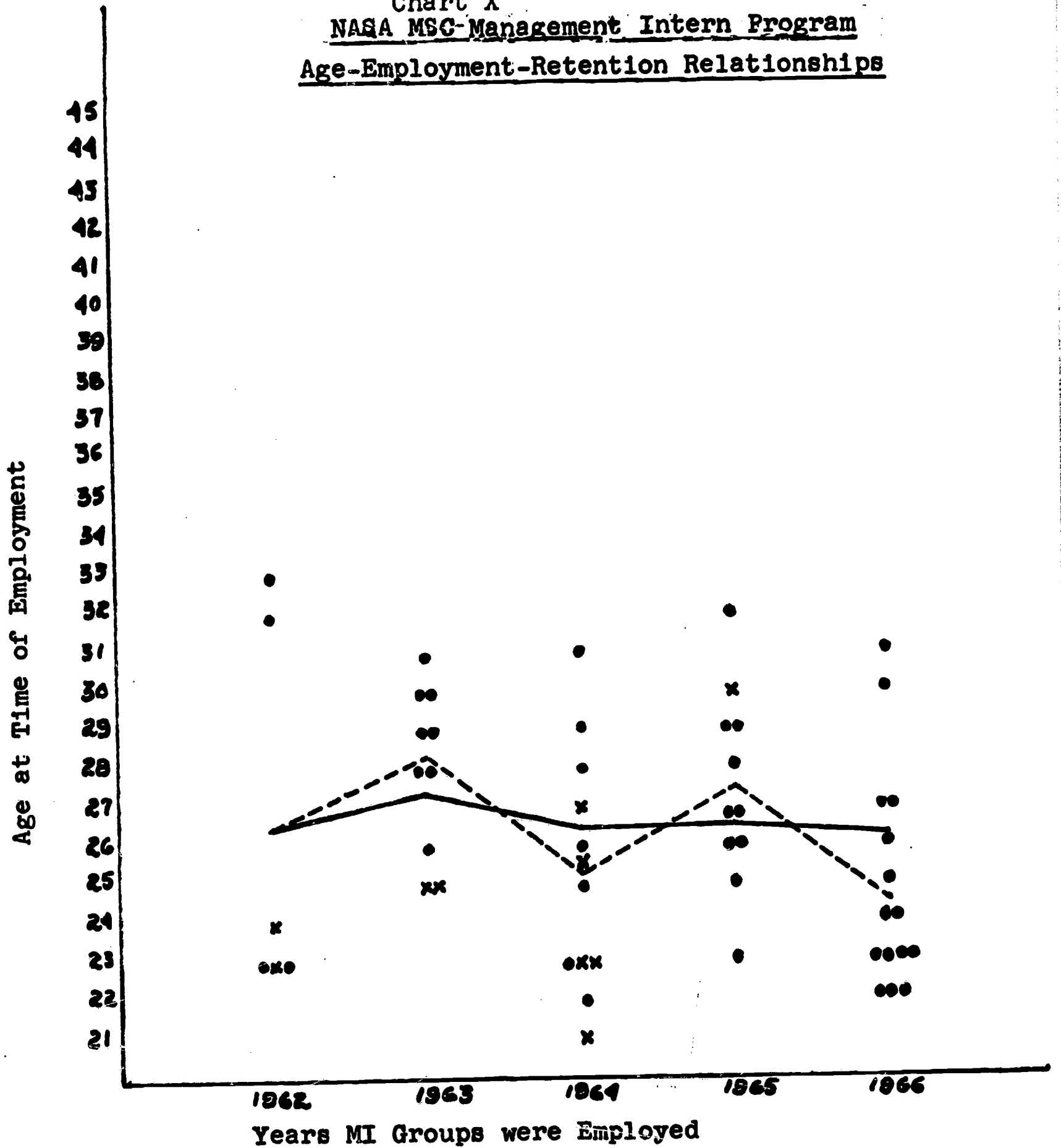
Of interest, Headquarters, MSFC, and MSC have recruited rather heavily in the younger age groups for the 1966-67 program.

Chart IX  
NASA Headquarters Management Intern Program  
Age-Employment-Retention Relationships



● = MI's Employed and Retained  
x = MI's Employed and Later Left  
----- = Average Age of MI Group Each Year  
\_\_\_\_\_ = Cumulative Average Age of all MI Groups

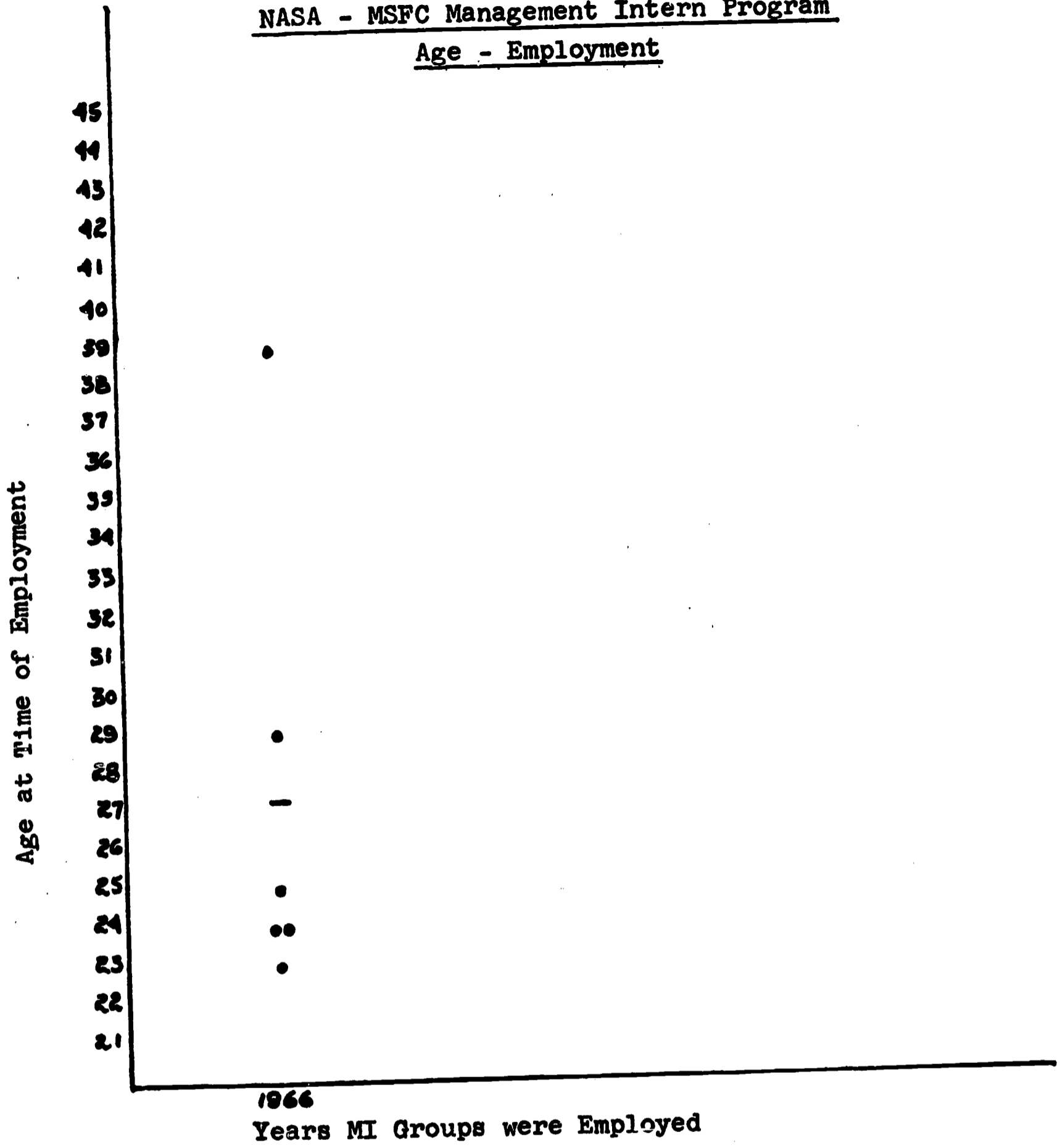
Chart X  
NASA MSC-Management Intern Program  
Age-Employment-Retention Relationships



- = MI's Employed and Retained
- x = MI's Employed and Later Left
- = Average Age of MI Group Each Year
- = Cumulative Average Age of all MI Groups



Chart XI  
NASA - MSFC Management Intern Program  
Age - Employment



● = MI's Employed  
 — = Average age of MI's

b. Career Follow-up

A study of separations from NASA during FY 1966 pointed out the following:

"Total separations and rates of separation are up compared to previous time periods and show a continuing upward trend. Loss rates among Professional Administrative employees are increasing at a substantially faster rate than those for Scientists and Engineers--." The study goes on: "---Separations peak sharply at grade GS-12 (Professional Administrative) with 23.5% of the total annual separations falling in this grade. ----Promotion-Pay-Prospects remains consistently the largest single reason. ----During the last six months of FY 1966, approximately 26% left after less than two years of service with NASA. Approximately one-half (48.9%) left after less than three years of service. The largest single group (leaving) was those with more than three but less than five years of service."

With the exception that young MIs tend to leave hiring agencies even sooner, the above data mirrors what's happening

in the various Federal MI programs studied. Some program directors are highly concerned about these exit rates - others rationalize that mobility among agencies is "good for the Government," but very few maintain any kind of career follow-up on former MIs. It is almost as if pre-occupation with the incoming class each year prohibits much attention being given to those MIs who are completing the program and to the "old hands" from earlier classes.

It would be tempting indeed, to single out ex-MIs as a group for an extended, career follow-up program. The groups are small. Individuals are often very well known. Some have completed work which is highly visible.

However, not all of the NASA MIs have met these successes. There are widely divergent capabilities, degrees of dedication, amounts of energy and enthusiasm, and indeed, levels of performance among individuals in any single MI group.

Very often career follow-up programs are designed on a something-for-everyone basis having as a goal the elevation of the entire organizations' population to bigger and better things. This is admirable and to a degree, can be expected to meet its goal. Totally absent, however, are the benefits to be realized by taking

8

only the very highest potential employees, firmly in hand and insuring development and advancement for those who continue to respond and achieve over a period of time.

Identification of high potential employees is usually the first problem. NASA managers thoughtfully identify individuals for fellowships, for promotions, for supervisor and manager positions, and for particularly strenuous assignments. One should readily assume that NASA managers select the highest potential people for whatever effort is at hand. The point is, that NASA managers are quite accustomed to selecting employees of high potential for specific assignments or activities as a normal part of their managerial function. The real problem occurs when a manager is asked to identify his one employee who has the highest potential to benefit NASA the most over the next several years and then follow through to develop that potential.

If NASA is to sustain itself by developing a major part of its future leadership within the agency then identification of younger high potential employees is a must. Some organizations are content that their problems and sustenance will be solved by the process of emergence. Emergence of the bright potential employee is fine. It's

necessary and inevitable to a degree. But it seldom serves the total needs of larger organizations. These organizations must usually turn to the outside and are most often disappointed when they become well acquainted with the new employee. Employees inside the organization are for the most part, a known, tested quantity. Development of managers cannot be effectively programmed separate and apart from the normal, on-going business of the agency. Managers can be developed, however, through the wise use of the developmental tools presently in the hands of every NASA supervisor and manager. It is possible that a mere consolidation and extension of present efforts is all that is needed.

Career follow up programs can be highly formalized. "Staffers" can be assigned to assist line managers. Records can be kept and reporting systems generated. In its simplest form, however, career follow-up is manifest through the manager who identifies his highest potential employees and then quietly sets about making their work visible to higher levels of management so that maximum use can be made of position opportunities as they occur.

A simple, formalized method of career follow-up could be highly useful to NASA in identifying employee potential and in dealing with the development problems of young employees with very high potential. The purpose, of course, would be to minimize the loss of this talent and to accelerate the development.

### Evaluation

#### a. From the User Viewpoint

Headquarters intern supervisors in a number of program and staff offices were interviewed. A large majority of them think well of the program, want to continue participating in it, and are eager to see it strengthened and improved.

The various officials contacted hold significantly different views on the goal of the MI program, what is expected of them while a trainee is under their guidance, and what they should expect from the intern. Most feel that for a training assignment to be worthwhile to the trainee and to the employing office, the intern must produce useable, necessary work. However, some see a training assignment as a teaching/learning situation

only. They expect no immediate, useful services from the intern and consider their supervisory or teaching efforts as a long range investment in future NASA management. Still others expect no return to NASA-- short or long range - they simply consider Headquarters' participation in the MI program as "doing out part" in a government wide endeavor.

Two of the officials interviewed expressed doubts that Headquarters should continue its MI program, because, in their opinions, "we don't need it."

The supervisors offered specific suggestions for improving and revitalizing the Headquarters' program.

They were:

- o Ascertain from top management whether or not they endorse the MI program, and if they do, communicate this endorsement to supervisors at all levels of management.
- o Convey to supervisors at all levels (via top management) that the responsibility for training management interns is part of their basic job.
- o Persuade high level officials to devote more effort to planning training assignments and more time for consulting with interns.
- o Improve coordination between the Training Office and the offices to which interns are assigned.

- o Formalize follow-up of post-interns for approximately five years to assess their progress and guide them toward appropriate position vacancies.
- o Whenever possible, assign interns to supervisors who are former interns.
- o Schedule each intern for a period in the Executive Secretariat.

At the Manned Spacecraft Center, interviews with a cross-section of immediate supervisors and managers upward to Division Chief levels indicate a good deal of satisfaction with the program and program products. Each interviewee seemed to fully subscribe to the objectives and methodology of the program. They revealed that they have participated actively in the program, in both the planning and execution.

The managers feel rather strongly that MSC should guard against MIs and ex-interns being cast into "Crown Prince" roles. They are interested in providing opportunity for all their employees, not just ex-MIs.

Most agree that the six months of orientation and rotation substantially benefits the MI in readying him for his later permanent assignment. Most do not feel that the MI makes significant contribution during the rotation period, but feel that the training is certainly



worth maximum effort on their part. The rotational program is considered excellent for observing the MI at work in the organizations.

Most see the biggest single benefit to MSC to be that the program provides a good source of mission oriented administrative people, very anxious to prove themselves, and with a relatively high degree of potential to do a good job quickly.

Some interviewees felt that MSC MIs should have specific academic training e.g. Public Administration, Business Administration etc., with some courses in Science or Engineering. However, others stated that nearly any type of liberalized education would suffice. More important, however, is the prospect's attitude toward aligning himself in a support function subordinate to a technical and scientific effort.

Overall, the higher level managers are cognizant of MI program objectives, program conduct, and results to be expected. At lower levels, the organizations differ substantially in technique of handling the rotational program in their area, however, they seem to compliment each other's efforts quite well.

b. From the Former MI Viewpoint

A cross-section of NASA Headquarters former interns were interviewed, three of whom have transferred to other agencies.

The comments and suggestions of those interviewed were quite similar. It was concluded after twelve interviews that these interviewees could reasonably be considered typical of the entire group.

In general, they spoke highly of the Headquarters program. They seemed to agree that the program provides an excellent opportunity to orient to Government and NASA operations; to quickly establish personal contacts with operating officials, and to observe managers in action. They appreciate the flexibility of rotational assignments and especially like field center assignments.

Most of them felt that they had been given challenging and meaningful work projects. They indicated that some routine work which had seemed pointless at the time has since proved to be useful background for more substantive undertakings.

There were a few reports of isolated instances of intern misuse during rotational assignments such as menial task assignments, no assignments at all, conflicts in schedule, etc.

Several interviewees mentioned that while the work projects they had been given had been at an interesting and stimulating level, they had not always been given enough of those projects. Some considered minimum program structuring to be a distinct advantage because of the flexibility it permits in adapting work projects to an intern's particular aptitudes or interests. Others felt that training projects should be formally and carefully planned in advance, but that such plans should be flexible enough to adapt to individual circumstances.

Although most of the former interns evaluated the program as being quite good, several of them stress the point that it does not go far enough in providing management training, per se. They felt they were not permitted enough opportunity to observe complex problem solving and decision making at the higher levels of management.

In order to strengthen the management training aspects of Headquarters' program, it was suggested that interns be placed as near as possible to the top of the organizations to which they are assigned, and that they be allowed to attend program office staff meetings, program reviews, and so on.

A number of interviewees believe that while a Headquarters intern benefits substantially from the program, the Headquarters does not benefit correspondingly. They think this happens because Headquarters does not follow up on the intern's progress after training to assure that he does not get stalled in a dead end assignment; that he is in fact being utilized in the type position for which he was trained, and that his productive services are retained for a period long enough to return NASA's investment in the program.

Many point out that if a basic objective of the program is to train administrative-managers to fill future Headquarters positions then the lack of follow up is a glaring omission.

Interviews were held with two or more Manned Spacecraft Center former interns from each of the five MSC classes.

Each of the interviewees were quick to point out that knowledge of the mission, organization, and key people are the most important results of the MI program. Most interviewees felt that they did not contribute much to MSC during the rotation period but received a great

deal. Elements of MSC rotation training which seem to impress the interns most were their attendance at staff meetings, program reviews, and negotiation meetings, working on significant projects, making presentations, working directly in the main stream of the organization's work, and being held responsible for their actions by both the various immediate supervisors and the Program Director.

Problems that they see in management interning are numerous and tend to be rather individualistic, as follows; not enough assignments, paper shuffling in some organizations; too much MI self-importance; rotational assignments too long or too short; job shopping by MIs; recruiting by different organizations during rotation; and, the initial adjustment to the MSC organization. The groups reacted favorably to MI seminars and meetings though they feel more could be done with respect to quality. They thought the meetings with top NASA Headquarters officials and officials from other agencies were highly beneficial.

The MSC MIs had scattered reaction to the earlier rotation training at Cape Kennedy. Some thought it valuable; some didn't. Most felt a purposeful, well designed, week long briefing and seminar series in NASA

Headquarters and other selected agencies in Washington would be highly beneficial to them and hopefully, to their work.

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