

1982

Relationships between aspects of personnel recruitment programs and reasons given by teachers for accepting employment in shortage areas

Roger L. Nall
Iowa State University

Follow this and additional works at: <https://lib.dr.iastate.edu/rtd>

 Part of the [Educational Administration and Supervision Commons](#)

Recommended Citation

Nall, Roger L., "Relationships between aspects of personnel recruitment programs and reasons given by teachers for accepting employment in shortage areas " (1982). *Retrospective Theses and Dissertations*. 7063.
<https://lib.dr.iastate.edu/rtd/7063>

This Dissertation is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Retrospective Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact digirep@iastate.edu.

INFORMATION TO USERS

This was produced from a copy of a document sent to us for microfilming. While the most advanced technological means to photograph and reproduce this document have been used, the quality is heavily dependent upon the quality of the material submitted.

The following explanation of techniques is provided to help you understand markings or notations which may appear on this reproduction.

1. The sign or "target" for pages apparently lacking from the document photographed is "Missing Page(s)". If it was possible to obtain the missing page(s) or section, they are spliced into the film along with adjacent pages. This may have necessitated cutting through an image and duplicating adjacent pages to assure you of complete continuity.
2. When an image on the film is obliterated with a round black mark it is an indication that the film inspector noticed either blurred copy because of movement during exposure, or duplicate copy. Unless we meant to delete copyrighted materials that should not have been filmed, you will find a good image of the page in the adjacent frame. If copyrighted materials were deleted you will find a target note listing the pages in the adjacent frame.
3. When a map, drawing or chart, etc., is part of the material being photographed the photographer has followed a definite method in "sectioning" the material. It is customary to begin filming at the upper left hand corner of a large sheet and to continue from left to right in equal sections with small overlaps. If necessary, sectioning is continued again—beginning below the first row and continuing on until complete.
4. For any illustrations that cannot be reproduced satisfactorily by xerography, photographic prints can be purchased at additional cost and tipped into your xerographic copy. Requests can be made to our Dissertations Customer Services Department.
5. Some pages in any document may have indistinct print. In all cases we have filmed the best available copy.

University
Microfilms
International

300 N. ZEEB RD., ANN ARBOR, MI 48106

8221211

Nall, Roger L.

RELATIONSHIPS BETWEEN ASPECTS OF PERSONNEL RECRUITMENT
PROGRAMS AND REASONS GIVEN BY TEACHERS FOR ACCEPTING
EMPLOYMENT IN SHORTAGE AREAS

Iowa State University

PH.D. 1982

University
Microfilms
International 300 N. Zeeb Road, Ann Arbor, MI 48106

PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy.
Problems encountered with this document have been identified here with a check mark .

1. Glossy photographs or pages _____
2. Colored illustrations, paper or print _____
3. Photographs with dark background _____
4. Illustrations are poor copy _____
5. Pages with black marks, not original copy _____
6. Print shows through as there is text on both sides of page _____
7. Indistinct, broken or small print on several pages
8. Print exceeds margin requirements _____
9. Tightly bound copy with print lost in spine _____
10. Computer printout pages with indistinct print _____
11. Page(s) _____ lacking when material received, and not available from school or author.
12. Page(s) _____ seem to be missing in numbering only as text follows.
13. Two pages numbered _____. Text follows.
14. Curling and wrinkled pages _____
15. Other _____

University
Microfilms
International

Relationships between aspects of personnel recruitment
programs and reasons given by teachers for
accepting employment in shortage areas

by

Roger L. Nall

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY

Department: Professional Studies in Education
Major: Education (Educational Administration)

Approved:

Signature was redacted for privacy.

In Charge of Major Work

Signature was redacted for privacy.

For the Major Department

Signature was redacted for privacy.

For the Graduate College

Iowa State University
Ames, Iowa

1982

TABLE OF CONTENTS

| | Page |
|---|------|
| CHAPTER 1. INTRODUCTION | 1 |
| Need for the Study | 3 |
| The Problem | 4 |
| Hypotheses | 5 |
| Sources of Data | 6 |
| Delimitations of the Study | 6 |
| Organization of the Study | 6 |
| Definitions | 7 |
| Summary | 8 |
| CHAPTER 2. REVIEW OF RELATED LITERATURE | 9 |
| Recruiting Influences | 9 |
| In-District Recruitment Efforts | 10 |
| Out-of-District Recruitment Efforts | 16 |
| Summary | 21 |
| CHAPTER 3. METHODS AND PROCEDURES | 22 |
| Methods | 22 |
| Analysis of the Data | 25 |
| Summary | 25 |
| CHAPTER 4. FINDINGS | 27 |
| Teacher Instrument Data | 27 |
| Administrator Instrument Data | 40 |
| Analysis of the Combined Data | 50 |
| Summary | 54 |

| | Page |
|--|------|
| CHAPTER 5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS | 55 |
| Summary | 55 |
| Limitation of Study | 56 |
| Conclusions | 56 |
| Discussion | 60 |
| Recommendations | 64 |
| Recommendations for Additional Research | 73 |
| Summary | 73 |
| BIBLIOGRAPHY | 74 |
| ACKNOWLEDGMENTS | 77 |
| APPENDIX A. ADMINISTRATOR LETTER AND INSTRUMENT | 78 |
| APPENDIX B. TEACHER LETTER AND INSTRUMENT | 83 |
| APPENDIX C. FOLLOW-UP LETTER | 87 |
| APPENDIX D. LISTING AND LOCATIONS OF DISTRICTS IN SAMPLE | 89 |
| APPENDIX E. TABLE | 91 |

LIST OF TABLES

| | Page |
|--|------|
| Table 1. Bachelor degree starting salaries in related fields | 16 |
| Table 2. Employers' use of various recruiting sources | 17 |
| Table 3. Percentage rate of return for all teacher shortage areas sampled | 24 |
| Table 4. Percentage rate of return for all administrators sampled | 25 |
| Table 5. Mean importance in rank order of teachers' reasons for coming to districts | 28 |
| Table 6. Items with highest degree of current job satisfaction and dissatisfaction for teachers | 31 |
| Table 7. Comparison of teacher reasons for accepting employment influenced by district size | 34 |
| Table 8. Reasons for choice of employment by teaching discipline | 36 |
| Table 9. Teacher reasons for accepting employment by frequency of opportunity for interviews | 38 |
| Table 10. Difference between mean importance and mean use of recruitment activities as perceived by administrators | 42 |
| Table 11. Rankings of administrators' perceptions of the most important district recruitment activities | 44 |
| Table 12. Dollar amount spent per student on district recruitment programs by distance from a city of 20,000 or more | 47 |
| Table 13. Dollar amount spent per student on district recruitment programs by size of district | 48 |
| Table 14. Comparison of number of shortage area teachers hired during past three years to size of district | 49 |
| Table 15. Correlation between recruitment activities used and reasons teachers in shortage areas gave for position choices | 92 |

CHAPTER 1. INTRODUCTION

"Undoubtedly the most important influence on the quality of an instructional program is the collective competency of the professional staff, and the recruitment and selection of able personnel is the sine qua non in the development of a competent staff" (18, p. 147).

Although the school systems presently expend energies and resources in the areas of in-service, staff development courses and information, and provide administrative and consultant resources in support of upgrading the quality of the instructional staff, these can be an extremely ineffective use of districts' valuable and limited resources. A weak employee can be exposed to and participate in all the above areas and be virtually as ineffective as before his/her participation. This, then, is an ineffective use of valuable and limited resources (7, p. 2).

On the other hand, a strong person recruited brings effectiveness, strength, adequate perceptions, effective interpersonal relationships, and a desire for growth to the position. This decreases the need for the intensive "coaching and counseling" activities previously noted intended to upgrade competence and instead tends to increase the effectiveness and quality of in-service and staff development programs already available in districts' situations.

It is evident that personnel responsible for hiring prospective candidates in schools would be enhancing their districts' goals if strong candidates were attracted to their districts.

It is obvious that the only people we will be able to hire are those who have been attracted to our organization--in essence, recruited as a result of our effort. Good people are hard to find in tight as well as loose labor markets, and if an

organization is going to be successful in attracting quality people, it must launch and maintain a vigorous, energetic, and imaginative program (38, p. 42).

As indicated by Stanton, the problem of how to recruit strong candidates is very real in all situations and in all districts. It becomes an intense problem, however, when looking at shortage areas--particularly in small and medium sized school districts.

"Small schools get fewer applicants for teaching jobs than do large schools. Small schools consume more than their share of new teachers. Small schools increasingly get no fully qualified applicants for teaching vacancies and must resort to some form of provisional certification" (12, p. 205).

Dunathan further underscores the problem as it is related to small schools.

But now comes the teacher shortage. New teacher production has dwindled to little more than half what it was in 1972. There are critical shortages of mathematics, science, vocational/industrial, agriculture, and special education teachers. In a recent survey, rural school superintendents in nine midwestern states more often reported shortages than surpluses in all but two teaching subjects (12, p. 205).

Another writer from one of the five teacher shortage areas used in this study cited what he thought to be the three major interrelated reasons for the shortages.

There appear to be three major interrelated reasons for this current shortage of mathematics teachers. The principal causes are the declining attraction of teaching as a profession, the increased competition for well trained personnel by private industry, and the changing social expectations demonstrated in the changing attitudes of women's career choices (30, p. 173).

Need for the Study

It is apparent that recruiting candidates to small and medium sized school districts in certain shortage areas is a serious problem. More specific information for the need for the study in Iowa is provided by a summary of a study completed by Dr. Trevor Howe of the Educational Placement Office at Iowa State University.

There are critical shortages of teachers in the following areas: agriculture education, industrial education, mathematics, science, learning disabilities, and special education. In the science area, there are shortages in general science, earth science, physics, and chemistry.

Long range consequences of continued critical shortages on the total educational system can be extremely serious. Many math and science courses are being taught by less qualified teachers with minimal preparation in these subjects, while many schools will be forced to drop some mathematics and science offerings because of staff shortages.

In conclusion, the prospects for an easy or immediate solution to ease the supply of teachers in the subject areas with shortages seems improbable and will probably worsen in the next few years. As long as the economy remains stable, the competition from business and industry for the services of people with the skills desired will remain high (21, p. 5).

The need for this study has been identified not only nationally but on a statewide basis. People responsible for making recruitment decisions must understand the nature of the problem. In addition, they must understand the effect of their own recruiting efforts and the relationship these have to the reasons why teachers in shortage areas accept employment in the districts in which they teach. When these are understood, people responsible for district recruiting can put emphasis on appropriate strengths of the district in a manner that will legitimately attract prospective candidates to the district.

The Problem

The purpose of the study was to look at two areas of concern and their relationships. The first view was the nature of recruitment as it now exists in Iowa schools. The second identified reasons teachers in the shortage areas give for accepting employment in the districts in which they teach.

The specific questions which this study sought to answer were as follows:

1. Are the reasons which teachers in shortage areas give for accepting employment the same for small and for medium sized school districts?
2. Are there differences by teaching area disciplines in the reasons teachers in shortage areas give for accepting employment in the places they do?
3. Do those candidates who had the opportunity to interview four or more times give different reasons for accepting employment than those teachers who did not have the opportunity?
4. Do those districts nearer a city spend less on recruitment than districts farther away?
5. Do small and medium sized districts spend the same per student enrollment for recruitment activities?
6. What relationships, if any, exist between administrative efforts in specific recruitment activities and the reasons teachers give for accepting their present positions?

Hypotheses

Utilizing instruments described later which were designed to measure recruitment activities and to identify reasons teachers give for accepting employment, the null hypotheses related to these areas were generated as follows:

Hypothesis 1. There are no significant differences between reasons given by teachers accepting employment in small schools and reasons given by teachers for accepting employment in medium sized schools.

Hypothesis 2. There are no significant differences in respondents' reasons for accepting employment based on selected shortage area teaching disciplines: industrial arts, vocational agriculture, mathematics, science, and learning disabilities.

Hypothesis 3. There are no significant differences in responses on the teacher questionnaire between candidates who had an opportunity to have four or more interviews and those who did not.

Hypothesis 4. There is no significant difference in the dollar amount spent per student on district recruitment programs by districts more than twenty miles from a city of 20,000 or more and by districts less than twenty miles from a city of 20,000 or more.

Hypothesis 5. There is no significant difference between the average amount spent on recruitment program activities per student in both small and medium sized districts.

Question 6. Because of its broad scope and its exploratory nature, Question 6 on page 4 has not been formulated into a formal hypothesis. It will be answered instead using a descriptive format.

Sources of Data

With the exception of some demographic data on school districts which were obtained from Iowa Department of Public Instruction documents, all the data used in the completion of this study were gained from the administration of two interview forms.

The first, "District Personnel Recruitment Activities Inventory" (administrator instrument), was administered to the person designated to have major responsibility for recruitment by the district. The second, "Reasons for Accepting Employment Inventory" (teacher instrument), was administered to teachers accepting employment in shortage areas within the last three (3) years.

Delimitations of the Study

The study was limited to include a sample of 34 small and 34 medium sized school districts within the state of Iowa. These numbers were determined to accommodate the statistical analyses needed. Those numbers were selected in order to meet minimal requirements at N for the statistical tests.

In addition, selected samples of teachers in shortage areas were identified from those same school districts.

Organization of the Study

This study is reported in five chapters. The first contains the statement of the problem, the need for the study, hypotheses, sources of data, delimitations of the study, and organization. The review of related literature is contained in the second chapter. The procedures are

discussed in chapter three, and chapter four contains the findings. Chapter five contains summary, conclusions, and recommendations.

Definitions

1. Recruitment: A basic definition is supplied by Beach.

Recruitment is the development and maintenance of adequate manpower sources. It involves the creation of a pool of available labor from which the organization can draw when it needs additional employees. Since the selection process involves a screening out or elimination of those not considered suitable for hiring, it is clear that any company must have on tap a larger supply of people than it will actually hire (5, p. 210).

For purposes of this study, it is emphasized that an operational definition of recruitment includes all those things that attract a person to a particular school district's job.

2. Person with Major Responsibility for Recruitment: That educational administrator who has primary responsibility for the district's recruitment activities and who is designated to coordinate district efforts in this regard. Before the study was begun, it was assumed that in most cases surveyed, it would be the superintendent of the district schools.
3. Small School District: Those districts with 950 enrollment and under.
4. Medium School District: Those districts with 951 to 2,000 enrollment.
5. City Size: For the question pertaining to city size, the population figure of 20,000 or more was created. This was done after looking at Iowa's cities' populations and taking into consideration data used to support the Iowa Department of Public Instruction - Career Information System of Iowa.

Summary

Educational programs are limited by the competency of staff. If excellence in education is to be established and continued, competent staff must be recruited. Nowhere is the problem more acute than in the identified shortage areas in Iowa's small and medium sized school districts.

It was the purpose of this study to take a meaningful look at the relative importance and effectiveness of recruitment activities engaged in by people responsible for recruiting in these school districts. Currently the variety methods of recruitment are deemed to be minimal and based on intuitive judgments of administrators responsible. The probability of recruiting more effectively might be enhanced if administrators could be provided with more valid information upon which to make decisions regarding their own recruiting efforts.

The study was done by gaining not only information from districts regarding their various recruitment activities but, also, by identifying reasons given by teachers who accepted employment in shortage areas.

Hypotheses were formulated to compare recruitment activities and district demographic data to reasons given by the teachers in shortage areas for accepting employment.

CHAPTER 2. REVIEW OF RELATED LITERATURE

This chapter contains a review of the literature as it pertains to recruitment activities, which for the purposes of this study are grouped into two areas--in-district and outside-of-district. Although Richardson suggests other groupings including traditional and nontraditional and institutional and noninstitutional, it seems for the purposes of this study that the most natural would be the categories of in-district and outside-of-district efforts (34, p. 1). A discussion is also included about persons influenced by recruitment activities.

A person reading in the area of recruitment for the first time soon discovers that little has been written until relatively recently about more than a very few basic recruitment methods. A variety of information of a "how to" nature may be found in these categories. Many of the doctoral dissertations reviewed dealt with student recruitment, but the tendency was to deal with selected groups of people doing the actual recruiting and not the effect of their efforts. Little research can be found on the use or effectiveness of even the most frequently used recruitment activities.

Recruiting Influences

There are five groups of people who are influenced by recruiting efforts of a school district.

1. Those who respond, are interviewed, and subsequently hired.
2. Those who respond, are interviewed, and are not hired.
3. Those who respond but have no further contact.
4. Those who gain an impression of an organization even though they don't respond.

5. The family members and friends of prospective employees (15).

The general categories above are presented here to demonstrate how extensive recruiting can be and how it is "part of a larger picture which -- good, bad, or neutral -- may last a lifetime" (15, p. 12).

In-District Recruitment Efforts

Harris (18) and Beach (5), authors of personnel textbooks, have discussed several ways districts might go about the business of recruiting candidates. Most of these are to some degree practiced commonly by many school districts and are included here in the in-district category. Some appearing later in the list have been introduced more recently.

Brochures

Although brochures created for recruiting efforts range from informal "thumbnail" sketches to rather elaborately printed and bound booklets, their purpose remains the same--to present as much information as possible about the district by using a concise format which will be attractive to the candidate. Well-written brochures can be the beginning of an effective orientation program for those candidates eventually offered contracts within the district. One writer suggested the following information should be included.

A good, complete recruiting brochure with direct appeal assists in encouraging the right candidates to interview. The brochure should include information about the school system, its course of study, the types of positions available, and the qualifications and characteristics needed to fill those positions. A simple, brief statement on security and other benefits should be included.

Descriptions of community and recreation facilities should be secondary to information about the district.

Above all, the brochure should indicate that the candidate must have something to contribute and that he will be hired to do a job for the school district. Such a tactic will not lose people that the district is really interested in hiring (35, p. 80).

Perry, looking at results of various recruitment methods for gaining members in professional organizations, found a significant correlation between gaining new members and in placing the application blank within the recruitment literature (31). Extending this idea to education, it would seem that at least a request for an application could easily be designed into the initial district brochure.

Unsolicited applicants

Although used perhaps most frequently in larger districts and in teacher surplus areas, this would be the easiest of teacher recruitment methods to use. In this, the district would simply wait for the "right" application to arrive in the school mail. This would also include people phoning or simply walking into the district office wanting employment information.

Administrative support

One of the findings of a study by Perry (31) indicated that state membership director's activities had a significant correlation with increase in National Business Education Association membership in the "successful" recruitment states surveyed. If this is true, then it would seem that administrative support elicited in the process of finding good teachers in shortage areas would be a strong factor leading to success in the program for small and medium sized schools.

Prospective applicant visits to school district

It would be a rare occasion to have a prospective employee sign a contract without at least an initial visit to the school district. Tours of facilities, of communities, and meetings with various district personnel are common for first visits. The idea of a second visit was unique to one of the authors in recruiting. The author implied a second visit to be a natural outgrowth of the first, especially when the district has a continuing relationship with the candidate (19).

School policy

It would seem logical that a policy of approved recruitment techniques could be considered part of the total program of attracting candidates to the district. One writer suggested that systematic and logical procedures are necessary for an effective program (16). In many cases, policy formation is not done because of an apparent general surplus of applicants in the district (17).

Although other writers viewed policy as it dealt with recruitment twenty-five years ago, it appears the same statement could legitimately be made today.

As with personnel policies generally, there is wide variation in recruiting policies. Many variations may be attributed to regional or industry differences in recruiting patterns. There is reason to suspect, however, that the implications of recruiting policy have not received the same attention afforded policy on selection, training, and fringe benefits.

These same authors suggested that the following general areas be addressed when creating such policy: promotion from within, outside recruitment, responsibility, sources and techniques, and special limitations (39, p. 20).

A Utah study provided another perspective.

Writers in the personnel administration field were in agreement on the point that if policy is to be meaningful and consistent, it must be written. They pointed out, however, that the educational field has not followed the pattern of government and industry in developing policy, and especially written policy (17, p. 63).

This same author concluded in his study that during 1972-73, only 46 percent of the schools sampled had any written policy regarding teacher recruitment and selection (17, p. 65).

Use of school staff in recruiting

Nothing seems more effective in recruiting than the district's look within to find teachers interested in a change in assignments toward a shortage area. One writer indicated that in industry, "a very initial step in filling a management vacancy is the search for internal candidates for either promotion or lateral transfer" (36, p. 26). Even if individuals were not found in this manner, perhaps current teachers could give administration some leads to professional colleagues from other geographic areas who might be attractive candidates. One source made the suggestion that staff could be trained in helping to recruit minorities. Taking this idea one step further, it seems that staff could be trained in helping to recruit teachers in shortage areas (22, p. 14).

Employee referral is a common means of recruiting in industry (9, p. 23-5). Argyris, in writing of orientation process in industry, suggested a group process or "whole organization" approach to hiring. It seems appropriate here to use interested faculty members serving on a voluntary recruitment committee (3, p. 64).

Internal recruiting

A writer in industry reported a movement "in growing their own" prospective employees, especially in areas of high demand and low supply like engineering, industrial management, and other technical fields" (9, p. 23-5). Craig indicated, also, that if companies are expecting to fill these categories, they must be willing to substitute "qualifiable" for "qualified." Perhaps the district would even find it cost-effective to offer a scholarship to people within in an effort to help defray costs of a current employee obtaining certification in a shortage area. This would also increase the chances that each shortage area position might be backed up by at least one individual, particularly in larger districts.

Summer employment

Another idea which might be borrowed from industry would be the employment between the junior and senior years of a strong candidate in a critical shortage area who has indicated strong interest in the district. Although small and medium sized districts could not offer the candidate a great deal of compensation for work in a summer program, community support for housing and partial meal allowance might be provided.

Compensation

No discussion of recruitment would be complete without at least mentioning compensation. Traditionally within certain limits and now because of the impact of collective bargaining, teachers in shortage areas are locked into certain salary schedules. However, if schools want to attract strong candidates in the areas mentioned in this study, it is this

writer's opinion that they must pay at or near the "market price" to attract and retain qualified employees.

One of the goals in any sound compensation program includes the aspect of attracting qualified employees. This aspect, it would seem, is also viable in schools and public employment as it is in business and industry, even though the public sector is more traditionally known for providing greater security in jobs.

An extremely important measure of the effectiveness of an organization's procedures for establishing rates of pay for jobs is the extent to which those procedures produce rates of pay for the organization's jobs which are competitive with those existing in the labor market for the same jobs. While this measure of effectiveness can be quantified and measured in a reasonably objective way, many companies, particularly small ones, can rely upon indirect measures of how well they relate to the market by observing the supply and demand market impact upon turnover and employee morale.

The employer's goal is to pay what is necessary to attract, retain and motivate a sufficient number of qualified employees. This requires salaries that are responsive to the competitive market considerations that impact those people. An employer who wants the very best quality workforce may have to pay above the market average. The economics of the wage determination process mean should place jobs in a hierarchy that considers the market, whether it be local, regional, national or industry-wide. Over the long run few employers are immune to competitive pressures (15, p. 2).

These "competitive pressures" spoken of here can be seen more easily by looking at a current Northwestern University Placement Center Study which lists beginning salaries in related technical and professional fields (14, p. 4). These follow in Table 1.

These starting salary figures range from a high of \$1,864 per month for a beginning engineering graduate to a low of \$1,350 per month for a business administration graduate. A person with a teaching certificate in one of the shortage areas under study in this paper the same year (1980)

Table 1. Bachelor degree starting salaries in related fields

| Field | Average starting salary per month (1980) |
|-------------------------|---|
| Engineering | \$1,864.00 |
| Computer Science | 1,697.00 |
| Chemistry | 1,628.00 |
| Math - Statistics | 1,550.00 |
| Sales, Marketing | 1,435.00 |
| Accounting | 1,415.00 |
| Econ-Finance | 1,407.00 |
| Business Administration | 1,350.00 |

would have accepted a contract from an Eastern Iowa school district with a student enrollment of 1,000 for a beginning monthly salary of \$916. Data from the Career Information System of Iowa (Iowa Department of Public Instruction) validate this district's starting salary as being somewhat representative of Iowa school districts. The monthly salary range of \$817 to \$1,091 was listed for beginning bachelor degree teachers for 1980.

Out-of-District Recruitment Efforts

Newspaper ads

Many districts in Iowa use a very brief listing of the job in the want ads section of the Des Moines Register or in other regional/city newspapers.

Public employment agencies

Job Service of Iowa now has an office in all cities of 10,000 population and over and branches in many smaller ones. Although in the past Job Service listed primarily nonprofessional jobs, recently there has been an

emphasis on increasing numbers of professional and technical positions registered with their offices (2).

A study was conducted of the relative perceived effectiveness of various recruitment activities by Utah businessmen. The following results are listed in Table 2 (34, p. 51).

In Table 2, referrals were used most often as a recruiting source, with private agencies mentioned most infrequently by the people in the study.

Table 2. Employers' use of various recruitment sources

| Source | Percent using source |
|-----------------------------------|----------------------|
| Referrals | 61.0 |
| Department of Employment Security | 58.8 |
| Newspaper Ads | 48.2 |
| Unsolicited Applicants | 47.3 |
| Colleges/Universities | 20.9 |
| Private Agencies | 19.5 |

Schools and colleges

The educational placement office perhaps provides the most natural clearinghouse function for jobs in shortage areas. Contacts to and from the placement office might include the regular mailings of job vacancies listings, letters, phone calls, studies related to shortage areas, and campus visits and interviews.

Major professors

College professor advisors who have been assigned students soon to graduate in a shortage area would provide another link between prospective candidates and employer schools. Contact with campus student chapters of organizations, related to professional shortage areas could perhaps best be maintained through contact with major professors and faculty advisors.

Search consultants

Although currently utilized by school boards in their search for superintendents and utilized for middle and top management, use of search consultants would certainly be viewed as nontraditional as a way of recruiting candidates for critical shortage areas. Cronin gives five reasons why search consultants might be hired. First is the urgent need to resolve the matter quickly. The lack of time needed for top administration to travel and interview is second, with the third being the frequent need for total confidentiality. Fourth is the lack of effective recruiting apparatus, and fifth is the squeamishness about approaching people in other locations (10, p. 32). It is apparent that at least on the surface, small and medium sized districts in the state of Iowa fit at least four of the above five criteria when it comes to attracting candidates in shortage areas.

Raine provided a bit more of the larger picture when he implied that any proposal written for use by a search consultant contain all of the following: present situation, objectives, work plan, time to completion, staff which will actually do the work on the search, costs, and general conditions (33, p. 41).

Broadcast advertising

This method is particularly of valuable use in competitive fields and where needs for results are immediate. Television and radio ads can have good impact. According to Bredwell, the following objectives are at least misused and probably are erroneous. "It's too aggressive. . . . Our competitors won't like it" (6, p. 45). This same author suggested that broadcast advertising should be used when available print material is ineffective and "when the prime prospect is not reading" (6, p. 45). This might well describe those teachers in shortage areas.

Nonnewspaper

In this category is placed not only the creative writing of ads which appear in conventionally used newspapers but the placement of ads in professional journals and community publications. Stahl proposed that the recruiter use conventional help wanted ads and also "intensive cultivation of newspaper, radio, television outlets for news about public job opportunities, usually on a public service basis, but often supplemented by imaginative paid advertising" (37, p. 124).

Former employees

"The best means of advertising, because it is both the most effective and cheaper, is not done by the employment manager at all but is carried on by present or former employees who tell their friends that the firm is a desirable place to work" (22, p. 264).

Small district coalition

Several districts could band together to cooperate in attracting candidates for those member districts. One study dealing with college faculty recruitment made five specific recruitment procedures or generalizations which seem to support the concept of the recruitment coalition. The areas identified were: centralized registers, centralized procedures, use of department chairmen in the recruitment process, informational packets, and paid visits to interview (8).

Professional associations

Unions in some trades in major cities are helpful in that they actually provide workers in some areas. An example of this would be a call for a carpenter from a major construction company in a major city. They are mentioned here because they might be a further resource for a school to obtain names of candidates in shortage areas.

The following professional associations might also provide effective contacts for a school administrator in Iowa interested in recruiting candidates in a particular shortage area.

Iowa Council for Teachers of Mathematics

Iowa Association for Retarded Citizens

Council for Exceptional Children

Association for Children with Learning Disabilities

Iowa Industrial Arts Association

Iowa Vocational Association

Iowa Academy of Science

Professional journals

Although the following quote was first published in 1942, it seems just as current as if the book within which it was printed had a 1981 copyright. "American public personnel agencies have made surprisingly little use of selective advertising in trade papers, professional journals, and so forth" (29, p. 46).

Contact with state departments of public instruction

In Iowa, the list of state department contacts could be expanded easily by adding the appropriate area education agency. "Regardless of the policy found toward placement, state education departments are a good resource to tap" (4, p. 32). In the case of area education agencies, the list of substitute teachers desiring full-time work could also be a valuable resource for local school administrators.

Summary

This chapter contained information gained from library, periodicals, and dissertation searches, all of which dealt with aspects of recruitment activities which might be used by officials responsible for attracting teachers to their school districts in Iowa. Effects of recruitment have been stated, as well as in-district and outside-of-district activities. Summaries have been provided of studies of recruitment activities which deal with parallel concerns of student and organizational recruitment.

CHAPTER 3. METHODS AND PROCEDURES

Methods

Two separate instruments were developed for this study. An administrator instrument was designed to measure attitudes, commitment, and recruitment activities used by district administration and a teacher instrument designed to measure reasons teachers gave for accepting the positions where they are currently employed.

Administrator instrument (Appendix A)

The administrator instrument was generated for use in this study and included a wide variety of recruitment activities divided into two main categories: in-district and outside-of-district activities. Instructions were given to the person who had primary district responsibility for teacher recruitment and included two scales to be marked appropriately for each item under the headings of "Use in This District" and "Importance in This District." Some questions were posed to get at respondents' attitudes toward recruitment and other questions were designed to assess the amount of time and effort the district administrator spent in recruitment during the last year. The final question simply requested names of people who were hired within the last three years in that district in any of the following shortage areas: industrial arts, vocational agriculture, mathematics, science, and learning disabilities.

Teacher instrument (Appendix B)

This instrument was designed for use in this study and included a scale measuring degree of importance for a variety of possible reasons

which teachers might give for accepting employment in a particular place. For operational purposes of the instrument, these reasons were grouped in a less formal manner under the following headings: the job, financial, cultural, and personal values. Each respondent was asked to rate each reason's relative importance as a factor in determining his/her choice in coming to that particular district. A question was included to determine how popular the teacher was as a prospective candidate and included a response about the number of times the person was given the opportunity to interview for various openings while the candidate was seeking a job. The participants were also asked to rate the four things which are currently satisfying to them in their job and three things which are now unsatisfactory. In addition, a rather extensive check list was included asking how the teachers first heard of their present position being available. For those not responding within 10 days, the follow-up letter listed in Appendix C was sent along with a new questionnaire and return envelope. It is noted that the timeline for this mailing process began immediately upon receipt of the Iowa State University Human Subjects Research Committee's approval on April 10, 1981, and ended with the beginning of the analyses of the data on May 19, 1981.

Sample

From information gained from the Research Division of the Iowa Department of Public Instruction, samples initially were drawn to include 34 small and 34 medium sized districts. These districts were the only ones in which data were obtained. Student populations from small schools

samples ranged from 169 to 939. In medium sized districts, the range was from 955 to 1,982.

A sample for this investigation was drawn from among practicing school administrators who had primary responsibility in their districts for recruiting teachers in shortage areas. Although the initial point of contact within districts studied was the superintendent, it was not necessary that the superintendent respond personally, if in fact that office did not have the major responsibility for recruitment. Appropriate samples were also drawn from the same districts responding of those teachers accepting positions in shortage areas within the last three years. Table 3 shows rate of return for all teacher shortage areas sampled.

Table 3. Percentage rate of return for all teacher shortage areas sampled

| | Teacher shortage area | | | | | Total |
|-------------------|-----------------------|----------------------|------------------|---------|----------------------|-------|
| | Industrial arts | Vocational agric. | Mathe- matics | Science | Learning disabil. | |
| Small School | 77.8 | 90.0 | 63.6 | 29.4 | 73.7 | 75.0 |
| Medium School | 86.7 | 75.0 | 69.2 | 60.0 | 62.5 | 68.5 |
| Combined Total | 83.3 | 81.8 | 66.7 | 63.0 | 66.7 | 70.9 |

Industrial arts and vocational agriculture led the rate of return list with combined totals of 83.3 percent and 81.8 percent, respectively. The combined total for all shortage area teachers from both small and medium sized schools was 70.9 percent.

Table 4 lists rate of return for all administrators sampled in this study.

Table 4. Percentage rate of return for all administrators sampled

| Administrator returns | |
|-----------------------|------|
| Small District | 85.3 |
| Medium District | 94.1 |
| Total | 89.7 |

The total percentage rate of return for all administrators was 89.7 percent, which reflects a slightly higher rate of return for medium districts than for the small districts and well exceeds the response rate for the teachers.

Analyses of the Data

After punched cards were received from the Iowa State University Computation Center and verified, the Statistical Program for the Social Sciences program was used to analyze the data (28). The following statistical tests were among those selected for use with the data: t-tests, Spearman correlations and analysis of variance. Data were analyzed at the Computation Center, Iowa State University.

Summary

In this chapter, a description of the design of the study was given, including all methods, sampling, and data analysis. Brief descriptions of

the administrator instruments and the teacher instruments were also provided.

CHAPTER 4. FINDINGS

This chapter includes findings of all the statistical analyses done to test all hypotheses. The categories of statistical tests fall into three categories: those treating data from the administrative instruments only, those treating data from the teacher instruments only, and those correlational tests done on the data from both instruments. The specific statistical tests done with the data in preparation for writing Chapter 4 were as diverse and varied as were the nature of the hypotheses. The following tests of the data were used at various points in an effort to obtain the "best fit" between the data and the statistical treatment to test each hypothesis: t-tests, chi square, analysis of variance, and Spearman correlation. In the text, each hypothesis immediately precedes its supportive statistical data analysis.

Teacher Instrument Data

First to be dealt with was the information the teacher instrument revealed about the importance of reasons teachers gave for accepting employment in the places they did. On this instrument, teachers were asked to respond to each reason listed as follows: 0 - not important to 5 - great importance. Table 5 includes a summary of the mean importance for each item as perceived by teachers completing the instrument.

Before any statistical analyses were done, the data from Table 5 were reviewed to determine patterns which might be evident. Two points of interest emerged from this examination of the data. The first was seen by looking across all categories to find those reasons which had the highest degree of importance to the teachers responding. According to the means,

Table 5. Mean importance in rank order of teachers' reasons for coming to districts^a

| Item | Mean degree of importance |
|--------------------------------|---------------------------|
| The Job | |
| Friendliness of Administration | 3.70 |
| Discipline | 3.63 |
| Facilities | 3.41 |
| Philosophy of School | 3.31 |
| Teacher Load | 3.30 |
| Friendliness of Staff | 3.30 |
| Materials | 3.27 |
| Policies | 3.23 |
| Reputation of District | 3.06 |
| Status of the Job | 2.88 |
| District Size | 2.40 |
| Extra Duties | 2.08 |
| School Building Size | 2.05 |
| AEA Support | 2.02 |
| Teacher Association | 2.00 |
| Absence of Extra Duties | 1.78 |
| Coaching Assignment | 1.65 |
| Financial | |
| Salary | 3.50 |
| Medical Insurance | 3.13 |
| Cost of Living | 3.02 |
| Fringe Benefits | 2.99 |
| Housing | 2.81 |
| Personal Leave | 2.58 |
| Length of Vacation | 2.18 |
| Travel | 2.10 |
| Coaching/Extra Duty Pay | 1.86 |
| In-Service | 1.83 |
| Dental Insurance | 1.52 |
| Cultural | |
| City/Community Size | 2.83 |
| Near City | 2.76 |
| Church/Worship | 2.62 |
| Community Events | 2.50 |
| Cultural Events | 2.24 |

^aScale: 0 (not important), 1 (little importance), 3 (moderate importance), 5 (great importance).

Table 5. (continued)

| Item | Mean degree of importance |
|-------------------------------------|---------------------------|
| Personal/Values | |
| Personal Growth | 3.33 |
| Competence of Staff | 3.31 |
| Chance to Use Special Skill | 3.30 |
| Compatible Administrative Style | 3.13 |
| Chance for Advancement | 3.04 |
| Change of Pace | 2.91 |
| Chance to Continue Formal Education | 2.77 |
| Chance to Pursue Hobbies | 2.70 |
| Spouse's Job | 2.42 |
| Enriched Social Life | 2.30 |

the following reasons were most important in determining why teachers accept employment in the places they do: friendliness of administration (3.70), discipline (3.63), salary (3.50), facilities (3.41), personal growth (3.33), competence of staff (3.31), philosophy of school (3.31), teacher load (3.30), friendliness of staff (3.30), and chance to use special skill (3.30). Although not ranked so highly as the previous list, following are items ranked above the moderately important level by the teachers: materials (3.27), policies (3.23), compatible administrative style (3.13), medical insurance (3.13), reputation of district (3.06), chance for advancement (3.04), and cost of living (3.02).

The reader's attention is also called to those items receiving the lowest mean score, indicating reasons which were of least importance to teachers in coming to their present districts: dental insurance (1.52), coaching assignment (1.65), absence of extra duties (1.78), in-service (1.83), coaching/extra duty pay (1.86), teacher association (2.00), AEA

support (2.02), school building size (2.05), extra duties (2.08), and travel (2.10).

Although no statistical analyses could legitimately be done with the groups of unlike and subjectively placed items within the categories, the following is the resultant mean within each of the four categories: personal/values (2.9), the job itself (2.8), cultural (2.6), and financial (2.5). As indicated, the reasons generated to be placed on the teacher instrument initially were placed within each of the four categories logically but somewhat subjectively by the researcher to help participants deal with the larger number of reasons more easily. Additional supportive information was gained through unsolicited comments which support the idea of the spouse's job, where applicable, as being a major impact upon the ultimate acceptance of a job in a given location.

Teacher reasons for coming to the district which over time were still providing satisfaction (as well as those which now were unsatisfactory) appear in Table 6. It was created to impart more information to the reader than a simple listing might. Teachers were asked to rank four reasons from the list provided which were important to their present degree of satisfaction with their job in the district. They were, conversely, asked to rank three from the total list of reasons which were now most unsatisfactory in their present job. In each case, they were asked to respond with their highest degree of satisfaction or dissatisfaction beginning with rank one (1). Table 6, then, in order to project a clearer total picture of the responses, reflects the most frequently listed response for each ranking done by all teachers as well as the second, third, and fourth most popular response for that same item. During the researcher's experience in

Table 6. Items with highest degree of current job satisfaction and dissatisfaction for teachers

| Teacher reason | Most important (%) | Second most important (%) | Third most important (%) | Fourth most important (%) |
|--------------------------------|--------------------------|------------------------------------|-----------------------------------|------------------------------------|
| Satisfaction Items | | | | |
| Friendliness of Staff | 11.6 | 6.4 | 6.4 | 10.6 |
| Spouse's Job | 11.6 | 1.1 | 3.2 | 1.1 |
| Salary | 9.5 | 5.3 | 6.4 | 7.4 |
| Philosophy of School | 8.4 | 5.3 | 3.3 | 5.3 |
| Teacher Load | 4.2 | 8.5 | 5.3 | 4.3 |
| Chance to Use Special Skill | 5.3 | 7.4 | 2.1 | 0 |
| Discipline | 7.4 | 6.4 | 6.4 | 9.6 |
| Coaching Assignment | 1.1 | 4.3 | 8.5 | 2.1 |
| Dissatisfaction Items | | | | |
| Teacher Load | 8.8 | 3.3 | 4.9 | -- |
| Trust in District's Leadership | 7.7 | 4.4 | 7.3 | -- |
| Discipline | 7.7 | 3.3 | 8.5 | -- |
| Policies | 2.2 | 6.7 | 3.7 | -- |
| Cost of Living | 3.3 | 5.6 | 4.9 | -- |

evaluating in-service and workshop sessions, it appears that more usable information has been gained by requesting more positive reasons than negative. This was the reason for requesting four reasons on the satisfactory side and three on the dissatisfaction side. A representative sample of the many unsolicited comments in response to this item was found on a first-year learning disabilities teacher's returned instruments. "The main reason I took this job is because it was the only teaching job available close to the town my new husband works in." Another from a second year learning disabilities teacher underscores the importance of this reason. "Thank you for your inquiry. I checked only Number 40 (Spouse's job), because that is why I changed positions. Until my marriage I had an

excellent job in a large city." And finally, another teacher indicated that the "reason I applied for the job is because my husband set up his dental practice here. I wanted to pursue my career so interviewed for this position. If I was (sic) a senior in college looking for employment, I probably wouldn't necessarily look here."

Although the previously listed comments represent only a small number, it appears the female in the marriage partnership still follows the husband. Of course, this may just indicate teaching jobs are generally more readily available in more places than other possible career choices. In this instance, although the mean response of all respondents to this reason was not particularly high (2.42), in some instances it was all important.

An example of how Table 6 is to be read is seen by viewing the item "friendliness of staff." This item was mentioned as being the single most important reasons for coming to their districts which is still providing job satisfaction by 11.6 percent of the teachers in the study. This same item was listed by 6.4 percent of the teachers in the study as being the second most important reason which is still satisfying. The same item of "friendliness of staff" was listed by 6.4 percent of the teachers as being the third most satisfying reason, while 10.6 percent of the teachers indicated that this same item was the fourth most satisfying to them in their current jobs.

The reader's attention is called to the general pattern which emerges in terms of items still providing satisfaction to the teachers up to three years after accepting their jobs: friendliness of staff, spouse's job, salary, teacher load, philosophy of school, coaching assignment, and

discipline. Some of these same reasons can also appear when viewing the major sources of dissatisfaction for the teachers in their present jobs: teacher load, discipline, trust in district leadership, policies, and friendliness of administration. Obviously, it would be the negative side of any of these factors, such as excessive teacher load or discipline problems which would provide the irritant source for the dissatisfaction.

Focusing attention on just one of those frequently mentioned reasons for dissatisfaction, Lang, writing in 1968, indicated that "abuse of administrative decision making" might be detrimental to teacher recruitment (26, p. 17).

Most of the teachers responding indicated that the manner in which they first heard of their present job being open was either from a newspaper, placement office, a call from the district administrator, or from a professional colleague/friend.

Twenty-four and one-half percent of the teachers included in this study received invitations for one interview, 15.3 percent for two, 21.5 percent for three, and 38.8 percent had four or more invitations. Although this period represents an era of general teacher oversupply, the positions studied represent shortage area teachers only.

Hypothesis 1. There are no significant differences between reasons given by teachers accepting employment in small schools and reasons given by teachers for accepting employment in medium sized schools.

Table 7 reveals results obtained in an effort to compare if reasons teachers gave for accepting employment were influenced by district size. Table 7 consists only of those teacher reasons which proved to be statistically significant. For a complete list, the reader is referred to the Teacher Instrument in Appendix B.

Table 7. Comparison of teacher reasons for accepting employment influenced by district size

| Reasons | District size | N | Mean | SD | t |
|---------------------------------|---------------|----|------|------|---------|
| Philosophy of School | Small | 43 | 2.98 | 1.46 | |
| | Medium | 59 | 3.56 | 1.33 | -2.07* |
| Status of Job | Small | 43 | 2.42 | 1.56 | |
| | Medium | 59 | 3.22 | 1.32 | -2.72** |
| Friendliness of Administration | Small | 43 | 3.33 | 1.51 | |
| | Medium | 59 | 3.97 | 1.14 | -2.34* |
| Reputation of District | Small | 42 | 2.55 | 1.61 | |
| | Medium | 59 | 3.43 | 1.44 | -2.83** |
| Policies | Small | 43 | 2.74 | 1.45 | |
| | Medium | 59 | 3.58 | 1.10 | -3.16** |
| Discipline | Small | 43 | 3.09 | 1.54 | |
| | Medium | 59 | 4.02 | 1.06 | -3.39** |
| City/Community Size | Small | 43 | 2.42 | 1.88 | |
| | Medium | 59 | 3.14 | 1.42 | -2.10* |
| Administrative Style Compatible | Small | 43 | 2.79 | 1.52 | |
| | Medium | 59 | 3.37 | 1.31 | -2.02* |

*Indicates significance at the .05 level.

**Indicates significance at the .01 level.

All of the teacher reasons for accepting employment which appear in Table 7 were significantly more important to teachers in medium sized districts than for teachers in the small districts sampled. The reader's attention is focused at the differences of teacher reasons which were significant at the .01 level: status of job, reputation of district, policies, and discipline. Those reasons which were significant at the .05

level were philosophy of school, friendliness of administration, city/community size, and compatible administrative style.

The data used to test hypothesis number 1 indicated that in fact there were significant differences at both the .05 and .01 levels between reasons teachers from small schools gave for accepting employment and reasons teachers from medium schools gave for accepting employment. Hypothesis number 1 was rejected.

Hypothesis 2. There are no significant differences in respondents' reasons for accepting employment based on shortage area teaching disciplines: industrial arts, vocational agriculture, mathematics, science, and learning disabilities.

The next analyses were done to determine if teachers from the five different teaching disciplines gave reasons for accepting employment which differed significantly from one another. The teaching categories used were the original five: industrial arts, vocational agriculture, mathematics, science, and learning disabilities. When using the analysis of variance, there were few responses found to be significantly different at the .05 level. Table 8 contains those reasons teachers gave for accepting employment in which differences were found by teaching discipline at the .05 confidence level. The table shows only the significant differences found between teaching disciplines: those not significant can be seen by viewing all 44 reasons which appear in the Teacher Instrument in Appendix B. In Table 8, the numbers appearing in parentheses are the means of the reasons which the respondents of the disciplines gave for choosing employment in their respective districts.

An example is offered to help interpret the information contained in Table 8. The first reason, "travel," is discussed here to aid in the

Table 8. Reasons for choice of employment by teaching discipline

| Teacher reasons | Voc Ag and LD | Ind Arts and LD | Science and LD | Ind Arts and LD | Ind Arts and Science |
|------------------------------------|------------------------------|--------------------------------|-------------------------------|--------------------------------|-------------------------------------|
| Travel | X Voc Ag=3.12 LD =1.65 | | | | |
| Absence of Extra Duties | | X Ind Arts=2.44 LD = .91 | | | |
| AEA Support in My Teaching Area | X LD =2.97 Voc Ag=1.06 | | | | |
| Coaching | | | X Science=3.19 LD = .75 | X Ind Arts=2.39 LD = .75 | X Science =3.19 Ind Arts=2.39 |

Note: Table includes group means significantly different at the .05 level. (Industrial arts N=18, vocational agriculture N=18, mathematics N=17, science N=17, and learning disabilities N=32.)

interpretation of the table. Vocational agriculture teachers answered significantly differently on this reason from learning disabilities teachers, the former with a relatively high degree of perceived importance (mean 3.17) and the latter group with a relatively low degree of perceived importance (1.65). This tends to reflect that vocational agriculture teachers desire both permission and financial support to travel a great deal in their work not only within the district's communities but in taking students to regional and national conventions as well.

The data from Table 8 seem to be logical when viewing the "AEA support in my teaching area" reason. The fact that this reason is given most often by learning disability teachers is understandable. This is because, in Iowa, area education agencies provide strong support services to special education personnel but are at best inconsistent throughout the state in offering consultant and support services to other "regular" education personnel.

The data used to test hypothesis number 2 indicated that in fact differences in the manner in which each of the groups marked the instrument were not the same. This hypothesis was rejected at the .05 level.

Hypothesis 3. There are no significant differences in responses on the teacher questionnaire between candidates' opportunity to have four or more interviews and those who did not.

T-tests were run on the data from the teacher instruments to examine if the number of invitations a candidate was offered to interview was related to the relative importance of each of the reasons for accepting employment in districts. Results of these analyses appear in Table 9. It contains reasons teachers gave for accepting employment where they had plentiful opportunities (four or more) for employment elsewhere and when

Table 9. Teacher reasons for accepting employment by frequency of opportunity for interviews

| Teacher reasons | Number of opportunities for interviews | N | Mean | SD | t |
|--------------------------------|--|----|------|-------|---------|
| District Size | Less than 4 | 59 | 2.17 | 1.631 | |
| | 4 or more | 38 | 2.76 | 1.195 | -2.06* |
| School Building Size | Less than 4 | 60 | 1.77 | 1.430 | |
| | 4 or more | 38 | 2.47 | 1.289 | -2.53* |
| Facilities | Less than 4 | 60 | 3.17 | 1.317 | |
| | 4 or more | 38 | 3.82 | 1.227 | -2.48* |
| Friendliness of Staff | Less than 4 | 60 | 3.00 | 1.540 | |
| | 4 or more | 38 | 3.76 | 1.195 | -2.75** |
| Friendliness of Administration | Less than 4 | 60 | 3.47 | 1.420 | |
| | 4 or more | 38 | 4.08 | .997 | -2.50* |
| Materials | Less than 4 | 59 | 3.09 | 1.277 | |
| | 4 or more | 38 | 3.55 | 1.245 | -1.79* |
| Coaching Assignment | Less than 4 | 59 | 1.27 | 1.919 | |
| | 4 or more | 38 | 2.21 | 2.055 | -2.25* |
| Salary | Less than 4 | 59 | 3.36 | 1.186 | |
| | 4 or more | 36 | 3.86 | .961 | -2.27* |
| Coaching/Extra Duty | Less than 4 | 59 | 1.53 | 1.775 | |
| | 4 or more | 37 | 2.38 | 1.876 | -2.21* |
| Housing | Less than 4 | 60 | 2.55 | 1.751 | |
| | 4 or more | 38 | 3.18 | 1.291 | -2.06* |
| Near City | Less than 4 | 60 | 2.41 | 1.660 | |
| | 4 or more | 38 | 3.32 | 1.509 | -2.76** |
| Community Events | Less than 4 | 60 | 2.22 | 1.595 | |
| | 4 or more | 37 | 3.03 | 1.190 | -2.85* |
| City/Community Size | Less than 4 | 60 | 2.40 | 1.628 | |
| | 4 or more | 38 | 3.55 | 1.408 | -3.71** |

*Indicates significance at the .05 level.

**Indicates significance at the .01 level.

Table 9. (continued)

| Teacher reasons | Number of opportunities for interviews | N | Mean | SD | t |
|------------------------------|--|----|------|-------|---------|
| Church/Worship | Less than 4 | 59 | 2.32 | 1.776 | |
| | 4 or more | 38 | 3.03 | 1.174 | -2.35* |
| Spouse's Job | Less than 4 | 60 | 3.18 | 2.013 | |
| | 4 or more | 38 | 1.28 | 1.830 | +4.76** |
| Trust in District Leadership | Less than 4 | 60 | 2.82 | 1.513 | |
| | 4 or more | 38 | 3.40 | 1.220 | -2.08* |

they had fewer other opportunities (less than four). The rationale for doing this statistical analysis will be more completely explained at the conclusion of Table 9.

When beginning to generate ideas for the development of this study, the use of this question regarding the number of interviews a candidate was offered was included when it seemed apparent at that time that this question would target those most attractive candidates for further study. However, the investigator's work on that question since the beginning of the study leads to the present belief that this question does not deal with the overall "quality" of the applicant but perhaps with something else. After examining data from Table 9, a picture of candidates might be portrayed as wanting to be near a city, wanting a coaching assignment, and tending to be unmarried.

A more logical argument to support the fact that this question deals not with the quality of applicants was gained after an extremely informal conversation with several professionals the researcher identified at his place of employment as being "successful." The question regarding number

of chances to interview was colored by their responses which generally went something like "I rarely go after several jobs at once. I am very selective in the jobs I seek, go after them at the right time, and usually get them." After studying this issue at some length, it is posited here that the number of interviews a candidate had in this study, with the possible exception of very young candidates, could not be used further as a quality variable to judge the candidate.

The information in Table 9 does give a great deal of information, however, on the reasons candidates fortunate enough to have a number of interviews gave for coming to their present districts. The reasons presented in Table 9 are important to the people fortunate enough to have the opportunity for so many interviews. All of the reasons listed in Table 9 were reasons significantly different from those less fortunate (or choosing not to) have so many opportunities to interview.

In hypothesis 3, the data indicated that there were differences on teacher instrument responses between those who had been given an opportunity to have four or more interviews and those who did not. The third null hypothesis was rejected at the .05 level.

Administrative Instrument Data

Twenty of the selected fifty-seven districts were within twenty miles of a city with a population of 20,000 or more. The following categories were checked as being the positions with at least shared primary responsibility for recruitment in the district: superintendent (51 persons), high school principal (19 persons), junior high principal (14 persons), elementary principal (14 persons), and assistant superintendent (1 person).

In the sample, virtually all administrator instruments had the position of superintendent checked as having primary responsibility for recruiting. Those few which had checks in other boxes also had the superintendent position checked. This was understood by the researcher to mean that although the superintendent did not have sole responsibility for the district's recruitment program, the superintendent's office was vitally involved in the planning and implementing of the program through work with other administrators in the district. The results cited above coincide with the results of a Utah study done in 1976, in which 19 of 20 schools sampled had the superintendent as assuming primary responsibility (17, p. 110).

The items in the table which follows were listed on the administrator instrument, and each respondent was asked to assess each as to the item's use and its importance in the district recruitment efforts. The table indicates that the most commonly used activities, according to their respective means, were as follows: placing an ad in the Des Moines Register (4.80), bringing the candidate in for a visit (4.47), periodic contact with college/university placement officers (3.73), the assignment of one other person to help with the district tour (3.61), used professional contacts within the State of Iowa (3.09), and teaching job vacancies posted in district (3.09).

Although there was no great difference between any item's perceived importance and its use, those with the most discrepancy included the following: district brochure development, helping a currently employed teacher to obtain certification in a shortage area, long-term administrative

Table 10. Difference between mean importance and mean use of recruitment activities as perceived by administrators^a

| Item | Mean use in district | Mean importance in district |
|---|----------------------|-----------------------------|
| In-District | | |
| Bringing prospective teacher candidates into district for a visit | 4.47 | 4.73 |
| Assignment of one other person to help conduct district tour of prospective teachers | 3.61 | 3.60 |
| Teacher job vacancies posted in district | 3.09 | 2.58 |
| Helped a teacher within the district to gain certification in a shortage area | 2.87 | 3.56 |
| Have adopted board policy on recruitment of teachers | 2.80 | 2.57 |
| Asked teachers currently employed for recommendations of prospective teacher candidates | 1.98 | 2.35 |
| Bringing prospective teacher candidates back for a second visit | 1.98 | 2.29 |
| Gave a descriptive brochure about the district to prospective teachers | 1.84 | 2.57 |
| Administrative team has done long term planning (2 years or more), in the area of recruitment of teachers | 1.67 | 2.27 |
| Worked with teachers' associations in teacher recruitment activities | .47 | .68 |
| Assign currently employed teachers to help with recruiting activities of teachers | 1.65 | 2.02 |
| Administrator has had some formal contact with the local Future Teachers of America Chapter | .38 | .48 |
| Out-of-District | | |
| Placed ad for teachers in <u>Des Moines Register</u> | 4.80 | 4.75 |
| Periodic contact with placement officers from more than two colleges/universities | 3.72 | 3.91 |
| Generally, used professional contacts within the state of Iowa | 3.09 | 3.57 |
| Contacted another district's administrative team in search for teacher candidates in shortage areas | 1.80 | 2.20 |

^aScale: 0 (not important), 1 (little importance), 3 (moderate importance), 5 (great importance).

Table 10. (continued)

| Item | Mean use in district | Mean importance in district |
|---|-------------------------------|--------------------------------------|
| Teacher recruiting visits to college or university campuses | 1.62 | 2.00 |
| Contacted Dept. of Public Instruction and/or Area Education Agency about listings of teacher candidates in shortage areas | 1.41 | 1.81 |
| Teaching jobs posted in community | 1.13 | .94 |
| Generally, used professional contacts outside Iowa | 1.06 | 1.28 |
| Asked teacher candidates to apply who had not applied for a position | 1.02 | 1.42 |
| Placed Ad for teachers in local paper | .96 | .98 |
| Formed a district coalition with at least one other district to attract teacher candidates | .42 | .52 |
| Placed Ad for teachers in trade journal | .14 | .30 |
| Produced video media ad for teachers | .05 | .18 |
| Hired a consultant to help in recruiting teachers | .07 | .11 |
| Produced radio ad for teachers | .02 | .10 |

planning, contact with Department of Public Instruction and Area Education Agencies, and contact with another district's administrative team.

A question was also included on the administrators' instrument which asked for a ranking of the three (3) recruitment activities which the district has found to be most important, with one (1) being most important. These results appear in Table 11. As in the design of Table 6, Table 11 has been created to impart more information to the reader than a straight ranking. As an example, the item "ad placed in The Des Moines Register" is used to indicate how the table may read. Out of the 27 possible recruitment activities listed to choose from on the questionnaire, 89.5 percent of the administrators in this study indicated that this one item regarding the

Table 11. Rankings of administrators' perceptions of the most important district recruitment activities

| Recruitment activity ^a | Most important (%) | Second most important (%) | Third most important (%) |
|--|--------------------|---------------------------|--------------------------|
| Ad Placed in <u>Des Moines Register</u> | 89.5 | 7.1 | 0 |
| Contact with Placement Office | 5.3 | 69.6 | 6.0 |
| Contacted Another District's Administrative Team | 0 | 3.6 | 24.0 |
| Bringing the Candidate in for a Visit | 5.3 | 1.8 | 6.0 |
| Generally, Used Contacts within Iowa | 0 | 5.4 | 18.0 |

^aA total of 27 recruitment activities were offered from which the administrator respondents could choose (see Appendix A).

ad placed in the Register was the single most important recruiting activity in their districts. A much lesser number (7.1%) of administrators in the study indicated that the "ad placed in The Des Moines Register" was their district's second most important recruitment activity, while none indicated that it was their third most important district recruitment activity. Only the most frequently mentioned recruitment activities appear in the table.

As can be seen from the table, the Des Moines Register ad, contact with placement offices, and contact with another district's administrative team were listed by the administrators in the first, second, and third ranking positions, respectively. Also noteworthy, although used much less, were the practices of bringing the candidate in for a visit and the use of other contacts generally within the State of Iowa.

In terms of how important the administrators felt recruitment efforts in the district were in relation to the quality of teachers eventually employed, their average response was 4.45 on a 1 (not important) to 5 (very important) scale. Although they thought recruitment activities were extremely important, the data which were supplied in terms of administrative time and expense do not support the previous statement. Little actual "effort" was seen when compared with this very high perceived importance of recruitment activities.

The district administrators drove an average of 225.5 miles during the last year, spent \$89.37 on postage and supplies, and \$86.20 on phone calls for teacher recruitment. Time spent during the last year on recruitment activities was designated in three areas: secretarial staff (23.0 hours), other administrative staff (42.0 hours), and administrator (28.2 hours).

Hypothesis 4. There is no significant difference on the amount spent per student on recruitment by districts more than twenty miles from a city of 20,000 or more and by districts less than twenty miles from a city of 20,000 or more.

Next, the data summary on the administrative instruments was reviewed carefully before the analysis was made in providing data to support or reject the hypotheses. The first such analysis was done by taking the variable of distance the district was from a city of 20,000 or more and comparing it to the amount of money districts spent in recruitment. It was originally hypothesized by the researcher that more isolated districts would have more formalized recruitment methods simply because they would have to "work harder" to attract candidates than their counterpart districts nearer cities. This assumption was tentatively made after discussion of

the problem with two large city personnel officers in charge of recruitment and after doing general reading in the area of health career recruitment.

Before the first statistical test was made, a variable was created called "total dollars" (Tot\$) which was an attempt to place a dollar amount on those efforts by districts to recruit teachers. Specifically, this category included phone cost, mileage, administrative team time, and the time of the person completing the instrument which in most cases was the superintendent. Twenty cents was the figure used per mile in an effort to convert mileage to dollars, and administrators' time was multiplied by \$17 per hour. This figure was arrived at by a research assistant who in 1981 calculated an approximate average hourly salary paid to Iowa's administrators. A summary of the above information results in the following equation.

$$\text{TOT\$} = (\text{Administrative Time} + \text{Your Time}) \times \$17 + \$.20 (\text{Miles}) + \text{Phone}$$

The development of this variable provided the information necessary to complete the statistical analyses in Table 12. Table 12 includes information in terms of cost of recruitment program activities per student enrolled (SAV\$) related to a district's distance from a city of 20,000 or more. The costs shown in Table 12 reflect money spent by the districts in all recruitment activities per student enrolled and not just costs to attract candidates in the shortage areas only. The reader is advised to note carefully the broadened scope of these particular data.

The t-test was not significant at either the .05 or the .01 levels. As Table 12 indicates, dollar cost of district recruitment programs per student for districts within 20 miles of a city of at least 20,000 people was less than for those districts farther away from the cities. Mean

Table 12. Dollar amount spent per student on district recruitment programs by distance from a city of 20,000 or more

| Distance-group | N | Mean dollars spent per student | SD | t |
|--|----|--------------------------------------|------|-------|
| Schools within 20 miles of a city of 20,000 or more | 16 | 1.36 | 1.42 | -1.20 |
| Schools not within 20 miles of a city of 20,000 or more | 19 | 2.09 | 2.16 | |

amount for districts closer to cities was \$1.36, while the mean amount for districts farther away was \$2.09.

The data used to test null hypothesis number 4 indicated that there was no statistical significant difference in the amount of money spent on recruitment in those districts which were within 20 miles of a city of 20,000 or more and those that were not. There was a difference, however, of \$.73 per student more being spent by outlying districts. Hypothesis number 4 was not rejected.

Hypothesis 5. There is no significant difference between the average amount spent on recruitment per student in small and medium sized districts.

The dollar amount spent per student (SAV\$) on district recruitment programs was compared by size of districts. Table 13 contains this information.

It was found that small schools spent an average of \$3.02 per student per year on district recruitment program activities, while medium sized districts spent an average of \$.92 per student per year on recruitment

Table 13. Dollar amount spent per student on district recruitment programs by size of district

| Recruitment-group | N | Mean dollars spent | SD | t |
|-------------------|----|--------------------|------|-------|
| Small School | 14 | 3.02 | 2.32 | 3.26* |
| Medium School | 21 | .92 | .77 | |

program activities. The differences found in Table 13 indicate a significance level of .01.

Data used to test null hypothesis number 5 indicated that there was a significant difference at the .01 level between the average amount spent on recruitment per student. Hypothesis number 5 was rejected.

After observing the larger numbers of shortage area teachers hired in medium sized districts and the smaller numbers employed in the smaller districts during the past three years, two analyses were done to compare the number of teachers in shortage areas hired during the past three years when related to the size of the district. Table 14 contains the results.

A Spearman Correlation was calculated comparing district enrollment and numbers of teachers hired during the past three years with a resulting correlation coefficient of $r=.17$, significant at the .05 level. This, like the previous table, indicates that as the size of the district (as measured by district enrollment) increases, so does the number of teachers hired during the past three years in the shortage areas. Although the data from Table 14 indicate that the larger districts do hire more shortage area teachers, another idea emerged after simply performing some arithmetic

Table 14. Comparison of number of shortage area teachers hired during past three years to size of district

| Number of teachers hired | Size of district | | Row total |
|--------------------------------|---------------------------------|----------------------------------|-----------|
| | Number of small districts | Number of medium districts | |
| 1 | 0 | 6 | 6 |
| 2 | 12 | 4 | 16 |
| 3 | 11 | 8 | 19 |
| 4 | 7 | 12 | 19 |
| 5 | 4 | 13 | 17 |
| 6 | 9 | 3 | 12 |
| 7 | 0 | 10 | 10 |
| Column total | 43 | 59 | 102 |

calculations on the proportions of number of teachers hired during the past three years to district enrollment. This was done by developing a simple ratio for each district by taking the number of shortage area teachers hired in the district within the last three years and dividing by student enrollment. The average ratio for small districts was .007. For medium sized districts, it was .003. The ratios suggest that smaller districts hired more shortage area teachers per student enrollment than did medium sized districts sampled.

This is not at all surprising when other variables are taken into consideration. First, special education legislation enacted in Iowa during the past 5 years has made it possible for tremendous expansion of learning disability programs. Although many schools of larger size already had ongoing programs, small schools in particular would have been seeking these candidates in greater numbers during these last three years. Secondly, it

would seem logical that the smallest schools would have the largest teacher to student ratios. This would even apply to any administrator to district enrollment ratio, which would tend to be rather large. What this means to the data, then, is that smaller schools would simply have proportionately more teachers in all areas.

Summary data have not appeared in this chapter for both the teacher and the administrator instruments. Attention is now focused on the combined data which were used to generate the correlational analyses.

Analysis of the Combined Data

The treatment of the data reflects the three main purposes of this study. The first purpose was to examine current recruitment activities practiced by Iowa school administrators in small and medium sized school districts. The second purpose of the study was to examine the strength of some reasons shortage area teachers give for accepting employment in the places they do. The first and second purposes of the study were accomplished by working with the data from the teacher and administrator instruments separately.

The third purpose of the study was to determine if administrators' efforts in selected recruitment activities "make a difference" in the kinds of candidates attracted to their districts as reflected by the strength of the reasons candidates give for accepting employment. It is this third purpose which the remaining data support in Chapter 4. It is emphasized, however, that no cause-effect relationship is assumed.

Question 6. What relationships, if any, exist between administrative efforts in specific recruitment activities and the reasons teachers gave for accepting their present positions?

Spearman Correlations were run on all of the recruitment activities (both in-district and outside-of-district) used by administrators with all of the reasons teachers gave for accepting employment in the places they did. The correlations include a comparison of each administrator's ranking with the average ranking of all teachers in the administrator's school. Table 15 (see Appendix E) includes all those correlations with a significance of .05 or higher. Because of its excessive length, Table 15 was placed in the Appendix; however, the most important information has been drawn from it and appears in the three paragraphs which follow.

The highest correlations between teacher reasons and district recruitment activities are presented in an effort to highlight important information from Table 15. In each of the pairs, the first item is the teacher reason and the second item is the district recruitment activity. Following each pair is their correlation. The highest positive correlations appear in the following list: teacher load and bringing candidate in (+.400), district size and university visits (+.437), building size and university visits (+.346), teacher load and assignment of another teacher (+.325), cultural events and teacher recruitment (+.290), vacation and contacts in F.T.A. (+.276), and districts' leadership and bringing candidate in (+.248).

Those items most negatively correlated were as follows: in-service and job posting (-.293), spouse's job and use of currently employed teachers (-.271), policies and local paper (-.236), AEA support and contacting another administrator (-.235), districts' leadership and local paper (-.233), building size and job posting (-.228).

Positive relationships indicate that as use of a recruitment item increases, so does the reasons item. As one increases, the other tends to

increase, too, and vice versa. The negative correlations are those in which one variable increases as the other tends to decrease and vice versa. Attention is called to the fact that actual recruitment activities and not their perceived importance are used in comparing the strength of teacher reasons for accepting employment.

The remaining paragraphs in this section have been written only for those individuals desiring a more complete explanation of the development and of the interpretation of Table 15, which appears in Appendix E.

In preparing data for Table 15, categories of items which were marked infrequently by respondents were not included because it was felt that their correlations would provide invalid information. An example of one item from the administrator instrument which was discarded was the activity dealing with the production of a video tape which could be used in the district's recruitment efforts. Because so few of the districts indicated it was used, it would have yielded no valid data.

Table 15 was developed so that the reader might gain knowledge of all of the strong, significant relationships, regardless of their sign. Positive relationships are indicated by a (+), negative by a (-). In both cases, the asterisk indicates significance at the .01 level. If only a sign appears, without an asterisk, this indicates significance at the .05 level. In an effort to help the reader in interpreting the table in a more specific manner, two examples are presented. The symbol "+*" appears where the "teacher load" from the teacher reasons line and where the "bringing candidates in" from the administrator recruitment activity column intersect. Because an asterisk indicates significance at the .01 level, these two items have a relatively high degree of significance. In this study,

administrators who made strong use of bringing candidates in to their district tend to get teachers in shortage areas who say that teacher load was an important consideration in their choice of jobs.

A second example is presented in an effort to aid the reader in the interpretation of the table. Administrators who made strong use of university visits in their recruitment programs tended to get candidates who indicate that building size was an important consideration in accepting employment. This can be seen by the "+" appearing at the intersection of the "University visits" column and the "district size" line in Table 15.

It is to be expected that in a table with so many possibilities for correlations which might be significant, some may appear by chance factors alone. It is important for the reader to view Table 15 in that light by first looking for general patterns which exist. One such way might be looking for rows and for columns in which there are many significant correlations revealed. Of these patterns for the recruitment activities listed at the top of the table, several stand out: development of a district brochure, use of local paper, teacher recommendations, and use of university placement offices each had many significant correlations to various reasons teachers gave for accepting employment. On the teacher reasons for accepting employment lines extending from the left of the table, there are also patterns which can be seen of reasons which are correlated with several of the district recruitment activities: teacher load, worship/church, in-service, and personal growth.

Further research may be necessary to fully substantiate the practical use and capabilities for the findings this last table portrays. If further research validates correlations between certain recruitment activities and

teacher reasons given for accepting employment, district strengths could be used effectively to attract candidates whose professional needs could be met by individual districts.

The data used to answer Question 6 indicated that there were significant relationships at both the .01 and the .05 level between recruitment activities and the reasons teachers gave for accepting employment. These significance levels occurred in 15.3 percent of all correlations.

Summary

All data and analyses which could support or reject the hypotheses have been included in this chapter. Data, for the purpose of this chapter, have been presented in three sections: data from the teacher instrument, data from the administrator instrument, and data from the combined instruments.

CHAPTER 5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

In this chapter, the data presented in Chapter 4 are used to reject or to fail to reject each hypothesis presented in Chapter 1. Also presented are limitations of the study, conclusions, discussion, and recommendations for additional research.

Summary

Purposes

There were three main purposes of the study. The first purpose was to examine current recruitment activities practiced by Iowa school administrators in small and medium sized school districts. The second purpose was to examine the reasons shortage area teachers give for accepting employment in the places they do. The third purpose was to determine if administrators' efforts in selected recruitment activities "make a difference" in the kinds of candidates attracted to their districts as reflected by the reasons candidates give for accepting employment.

Method

Thirty-four small districts (under 950 enrollment) and a like number of medium sized Iowa school districts (951-2,000 enrollment) comprised the sample population. Although the administrators' instruments contained a variety of demographic information, it was designed to measure district use of an array of recruitment activities. Shortage area teachers hired in the same districts during the last three years were asked to respond to an instrument designed to measure the strengths of reasons which they had for accepting employment in the district in which they work. Five shortage

area teaching disciplines were studied: industrial arts, vocational agriculture, mathematics, science, and learning disabilities.

Analyses

Data from the teacher instruments were first analyzed separately. In a similar manner, data on the administrative instruments were analyzed. The combined data were used in obtaining the correlational analysis for the two groups.

Limitation of Study

Thirty-four small and thirty-four medium sized school districts were sampled. The study did not include any data from large districts. Although the problem of recruiting shortage area teachers in large cities is at worst a mild problem, comparative data might have given the study an added dimension.

Conclusions

Hypothesis 1. There are no significant differences between reasons given by teachers accepting employment in small schools and reasons given by teachers for accepting employment in medium sized schools.

Data from Table 7 indicated that status of the job, reputation of the district, policies, and discipline were reasons teachers gave for accepting employment which were found to be significantly more important at the .01 level for medium sized districts than for small sized districts. The same table shows that philosophy of school, friendliness of administration, city/community size, and compatible administrative style were found to be more important at the .05 level of significance for medium sized than for small sized school district teachers.

The data used to test hypothesis number 1 indicated that in fact there were significant differences at both the .05 and .01 levels between reasons teachers from small schools gave for accepting employment and reasons teachers from medium schools gave for accepting employment. Hypothesis number 1 was rejected.

Hypothesis 2. There are no significant differences in respondents' reasons for accepting employment based on selected shortage area teaching disciplines: industrial arts, vocational agriculture, mathematics, science, and learning disabilities.

Data appearing in Table 8 revealed that vocational agriculture teachers perceived travel as being significantly more important (at the .05 level) than did learning disability teachers.

Industrial arts teachers indicated that "absence of extra duties" was significantly more important than did the learning disability teachers. "AEA support in my teaching area" was significantly higher for learning disabilities teachers than for vocational agriculture instructors.

The "coaching" reason question elicited more differences significant at the .05 level than any other single reason. Science teachers indicated that this reason was significantly more important than did learning disability teachers; industrial arts teachers indicated that the reason was significantly more important than for learning disability teachers; and science teachers indicated that the reason was significantly more important than did industrial arts teachers.

The data used to test hypothesis number 2 indicated that differences do exist at the .05 level of significance as to the reasons shortage area teachers give for accepting employment where they do. This hypothesis was rejected.

Hypothesis 3. There are no significant differences in responses on the teacher questionnaire between candidates who had an opportunity to have four or more interviews and those who did not.

Data appearing in Table 9 showed that friendliness of staff, near a city, and city/community size were all significantly more important at the .01 level for those people who had the opportunity to interview four or more times. Spouse's job was also significantly different at the .01 level but was more important for the people who did not have the opportunities for four or more interviews. District size, school building size, facilities, friendliness of administration, materials, coaching assignment, salary, coaching/extra duty, housing, community events, church/worship, and trust in district's leadership were reasons which were also significantly more important for the group with four or more opportunities to interview at the .05 level.

In hypothesis 3, the data indicated that there were differences at the .05 level on teacher instrument responses between those who had been given an opportunity to have four or more interviews and those who did not. The third null hypothesis was rejected.

Hypothesis 4. There is no significant difference in the dollar amount spent on district recruitment programs per student by districts which are more than twenty miles from a city of 20,000 or more and by districts less than twenty miles from a city of 20,000 or more.

Data from Table 12 indicated that schools within 20 miles of a city of 20,000 or more spent an average of \$1.36 per student per year on recruitment activities. Schools further away from a city of 20,000 spent an average of \$2.09 per student per year for recruitment activities. Although school districts further away from cities of 20,000 or more did spend an average of \$.73 per student enrollment more for recruitment than did

districts closer to cities, the difference was not statistically significant at the .05 level. Hypothesis number 4 was not rejected.

Hypothesis 5. There is no significant difference between the average amount spent on recruitment program activities per student in both small and medium sized districts.

Data from Table 13 indicated that small sized schools spent an average of \$3.02 per student per year on recruitment activities, while medium sized schools spent \$.92 per student per year. All schools spend a minimum amount for basic recruitment activities such as advertising openings. This results in a relatively greater per student cost for smaller districts.

Data used to test null hypothesis number 5 indicated that there was a significant difference at the .01 level between the average amount spent on recruitment per student. This hypothesis was rejected.

Question 6. What relationships, if any, exist between administrative efforts in specific recruitment activities and the reasons teachers give for accepting their present positions?

Table 15 contained all of the recruitment activities and reasons teachers gave for accepting employment which were significant at both the .05 and .01 levels. The highest correlations between teacher reasons and recruitment activities are presented in an effort to highlight important information from Table 15. In each of the pairs listed, the first item is the teacher reasons, and the second item is the recruitment activity. The number following each pair is the Spearman correlation coefficient for the pair. The highest positive correlations appear in the following list: teacher load and bringing the candidate in (+.400), district enrollment size and university visits (+.347), building enrollment size and university visits (+.346), teacher load and assignment of another teacher (+.325), cultural events and teacher recruitment (+.290), vacation and contacts

in F.T.A. (+.276), and districts' leadership and bringing candidate in (+.248).

Those items most negatively correlated were as follows: in-service and job posting (-.293), spouse's job and use of currently employed teachers (-.271), policies and local paper (-.236), AEA support and contacting another administrator (-.235), districts' leadership and local paper (-.233), building enrollment size and job posting (-.228).

The data used to answer question 6 indicated that 15.3 percent of all correlations between recruitment activities and the reasons teachers gave for accepting employment had significant levels at the .01 and .05 levels.

Discussion

It is hoped that the data revealed by the testing of all six hypotheses will contribute meaningfully to the body of knowledge of educational administration in general and specifically to teacher recruitment. Because little research had been done on most of the information about which this paper has been written, the researcher had few preconceived notions or expectations about the nature of the results.

There was one surprise, however, contained in the information in Tables 5 and 7 which were used to treat data to test hypothesis number 1. The item "friendliness of administration," which was the most important reason given by teachers in shortage areas for accepting employment, was almost deleted by the researcher at the last minute before sending the instrument to teachers. At that moment, the item seemed almost too "folksy" to be included in a study as to why teachers accepted employment

in the places they did. Now that the results of this item's importance are known, it now assumes great importance. In education in 1982, it is particularly easy to overlook the tremendous importance of interpersonal relationships, of the desire for understanding and acceptance, and the importance of mutual respect. The fact that "friendliness of administration" was judged so very important by teachers rather dramatically underscores the importance of the "people" relationships in jobs.

Interpretation of data in Tables 5 and 7 would also suggest that it is important to an effective recruitment program to note that discipline, salary, facilities, personal growth, competence of staff, philosophy of school, teacher load, friendliness of staff, and the chance to use special skills are all important reasons teachers give for accepting employment. For the medium sized school district administrators, it is also very important to realize that status of the job, reputation of the district, policies, and discipline were all more important reasons given by teachers who they will attempt to recruit than if they were administrators in small sized districts.

Another outcome of the study was a lower mean importance of the "salary" reason by the teachers sampled than was expected. Although it was an important reason teachers gave for coming to their present districts, it was not the single most important. Friendliness of administration and discipline were listed as more important reasons than salary. It should, perhaps, be pointed out here that when "discipline" is mentioned as a reason throughout this study, it should be understood that if a teacher finds that to be important, it is with the presumption that discipline is not seen as particularly a difficult problem in that district.

In terms of recruiting for each specific discipline studied, the data in Table 8 used to test hypothesis 2 seem to have some value to administrators. "AEA support in my teaching area" was, of course, more important to learning disability teachers. The relationship they would have with area education special education personnel such as psychologists, social workers, media personnel, and special education supervisors would be much more important to their day-to-day teaching than would any instructional services consultant be to the other teaching disciplines studied. Where coaching assignment is important to an individual in the categories of industrial arts, science, or perhaps math, much attention must be given to coaching assignment as a legitimate recruitment tool. Opportunity for travel is apparently an effective recruitment item for use with prospective vocational agriculture teachers. Data from this study would lead to the belief that industrial arts teachers do not want to be assigned to a lot of outside activities. Although not in conflict with past experience in working with a variety of teaching disciplines, all but the first of the differences listed in this paragraph were not anticipated.

In preparing to test hypothesis 3, it was discovered that the data revealed many more reasons than expected which were answered significantly differently by teachers who had the opportunity for four or more interviews. Apparently if one has several opportunities for jobs, that person will be much more discerning about work conditions.

Also, unanticipated was the highly significant difference on the question dealing with "spouse's job." Teachers with less than four opportunities to interview indicated that "spouse's job" was more important to them than to those who had four or more opportunities to interview. This

item, when coupled with all the other information contained in Table 9, may relate to a sense of selectivity within individuals having fewer opportunities to interview. The items relating to friendliness of staff, near city, city/community size, community events, and coaching/extra duty were significant in the direction of those with most frequent opportunities to interview. This may mean that people with most opportunities to interview were highly motivated to seek out a variety of career options for themselves, or it simply may mean that they tended to be younger, more outgoing or perhaps unmarried. Assuming the latter, instead of expending energies on coaching, extra duty, attending community events, and socializing with staff, the people with fewer opportunities to interview may be forced to expend extra energies in maintaining a family or home.

Data generated to test hypothesis 5 indicate that small schools spend a significantly larger dollar amount per student enrollment for recruitment activities than do medium sized districts. Small districts have at least an equal need for the most effective recruitment activities possible, yet they may have fewer resources and fewer budget dollars to direct toward the creation of an effective recruitment program. Small districts simply do not have the drawing power or the opportunities to attract applicants who have many chances for employment. What must happen, then, is for the administration in small and perhaps outlying districts to use each dollar marked for recruitment programs as effectively as possible. Specific recommendations follow in the recommendation section which appears later in Chapter 5.

Related information gained from asking administrators exactly how they do recruit shows a great lack of creativity and lack of divergence in how most districts recruit. Data from this study would suggest that many administrators place an ad in the Des Moines Register, contact a couple of university/college placement offices, and wait on prospective calls to come in from prospective candidates.

Although not one of the main focuses of the study, it is also important in the recruitment process to attempt to keep shortage area teachers generally satisfied with their jobs so that the costly aspects of recruitment do not occur any more than is minimally necessary. Friendliness of staff, spouse's job, salary, philosophy of school, teacher load, and chance to use special skill were all reasons which were listed as satisfying to teachers already employed. Conversely, teacher load, trust in district's leadership, discipline, policies, and cost of living were items listed by currently employed teachers as causing dissatisfaction with their jobs. It would seem that a strong administrator would emphasize the former list, while seriously considering the latter as things which perhaps could be improved in the district with the probable exception of cost of living.

Recommendations

The statistical supportive data from Chapter 4 and information from the review of literature, along with the personal experience the writer has gained in educational consulting with administrators, lead to the following twelve (12) suggested plans of action presented for individual school districts desiring improvement in their recruiting program efforts.

1. Continuous effort. It is suggested that many of the items regarding a district's recruitment program should not all occur just in April and May but should be planned to occur throughout the school year. Contact with universities, helping teachers to obtain certification in a shortage area, and long term planning by the administrative team could all be carried out over much of the school year. Hansen's study indicated that less than 30 percent of the schools surveyed by him described their recruitment programs as continuous (17).
2. Commit the administrators' recruitment plans to paper. A written plan of action for recruitment, agreeable to all administrators in the district, is important; it helps to focus energies and resources on specific actions. This plan need not be formal, board adopted policy but a simple series of statements focusing on recruitment and each administrator's major responsibility in it.
3. Budget. In many schools a haphazard and sporadic approach is taken in recruitment budgeting. It is suggested that a budget be set aside each year in an effort to ensure more continuous efforts. In another writer's descriptive study, it was indicated that "Without exception, the literature reviewed for this study pointed to the particular paradox in education of budgeting such a small amount of money . . . for recruiting and selecting the professional staff which is the largest single investment and the most important in the school's operation" (17, p. 72).

Although the idea of continuous budgeting was not one of the questions asked of administrators completing the instruments for this study, there were several things which tend to support the above quote.

First, on several of the instruments returned from administrators was something to the effect that "We didn't have to do any recruiting this last year because none of our staff resigned." Secondly, the first four of the top five recruitment activities done by administrators are "reactive" to the problem of finding a candidate for a position presently open. They were not seen by this researcher as continuous activities. Table 11 lists all of the top five activities: ad placed in the Des Moines Register, contact with placement office, contact with another districts' administrative team, bringing the candidate in for a visit, and generally using contacts within Iowa.

4. Awareness of teacher reasons for accepting employment. Administrators in small and medium sized districts who have teacher recruitment responsibilities should be aware of the main reasons teachers give for accepting employment in the places they do, particularly at the initial visit with prospective candidate. The influence of spouse's job (where it applies) as well as awareness of other strong reasons would seem to be helpful in planning: friendliness of administration, discipline, salary, facilities, personal growth, philosophy of school, competence of staff, chance to use special skill, friendliness of staff, and teacher load were all shown to be important in this study.

5. Use a currently employed teacher to help during a candidate's initial visit. Administrators should consider the possibility of using a currently employed teacher to help with a candidate's initial visit for at least two main reasons. First, a carefully selected currently employed teacher will tend to enhance the image of the friendliness of administration and staff which was judged to be an extremely strong reason shortage area teachers

gave for coming to their districts. This would be a natural outcome if the currently employed teacher could take the prospective candidate around informally on a building tour. In addition, the helping teacher could also discuss during the visit any other strengths the district has which might relate to reasons teachers in this study gave for accepting employment initially: discipline, salary, facilities, personal growth, philosophy of school, competence of staff, chance to use special skill, and teacher load.

Secondly, the currently employed teacher could also emphasize those reasons which this study found were still providing satisfaction to teachers after they were employed by their districts: friendliness of staff, philosophy of the school, teacher load, discipline, coaching assignment, and the chance to use a special skill. Any currently employed teacher willing to agree to lead a building tour would probably feel generally positive about the district, its community, and its leadership and would speak to things which were currently satisfying to them.

6. Look inside the district first. The results of this study suggest that the schools could well spend more effort in using their own resources and staff first. Although three of the areas presented in the following list are elaborated upon in other recommendations which follow, the list presented here is representative of those within district activities which could profitably be focused on by district administration.

- Develop a good district brochure
- Help a currently employed teacher to obtain certification in a shortage area
- Long term administrative planning
- Contact with another district's administrative team, the Department of Public Instruction, or an area education agency
- Regularly visit placement offices on college/university campuses
- Enlist help of currently employed teachers in the district's recruitment program

Ask currently employed teachers for recommendations
Seek out candidates to apply for a position who had not applied in the district

7. Develop a good district brochure. Through following an outline based on information found in Chapter 3, administration would be advised to develop a complete, carefully planned brochure. There seems to be three outcomes in addition to the most obvious outcome of imparting information of a general nature about the district to prospective candidates. First, a brochure presents a strong initial impression of a district administration who cares enough to spend time creating a high quality brochure. Second, it allows administration a concise format in which to present not only a picture of its school and the surrounding communities but to present the challenge of the job, its opportunities, and the district's expectations of its employees. Third, a prospective candidate can begin to weigh information from the brochure about which of his/her reasons for accepting employment might be met if employment in the district were accepted.

8. Help a currently employed teacher to gain certification in a shortage area. Although this idea was presented for discussion purposes at a program of studies meeting by committee member Dr. Norman Boyles, the idea has received further validation in this study. Unless the boundaries determined by negotiated master contracts would prohibit it, a stipend could be provided in which a portion of all tuition, fees, and university room and board could be provided by the district for a teacher wanting to obtain certification in a shortage area. In return, the teacher could agree to remain in the district which is paying these expenses for a specific period of time after completion of the course work. It would seem that both the teacher and the district would benefit from such an arrangement.

In terms of helping create interest of currently employed teachers in the shortage areas, perhaps a one- or two-day experience with a teacher in one of the shortage areas in a situation very similar to "job shadowing" would be helpful. It would give the prospective teacher in the shortage area a real "feel" for the job and in so doing give an experience to that teacher which would enable him/her to test real skills and also to determine new skills which would have to be learned.

In addition to the job shadowing experience mentioned above, use of the Career Information System of Iowa on a voluntary basis by presently employed teachers might also provide not only additional job related information to the prospective teacher discipline area changer but would be helpful in providing valuable information about strengths and aptitudes which might be applicable in the changer's next position. Although the Career Information System of Iowa is proving to be an increasingly valuable job counseling tool for adults, it is mentioned because it is already available and in use in either the manual or computer delivery modes in virtually every public and private school district in the state. In the seven county area which is served by this researcher, only one of thirty-nine public school districts is not a subscriber to this service. This, then, would be a completely cost free tool for districts to use as they search for currently employed teachers who may want to become certified in a shortage area.

9. Try to keep currently employed shortage area teachers within the district. The reader is reminded that friendliness of staff, philosophy of the school, teacher load, discipline, chance to use special skill, and salary were mentioned most frequently by teachers as those items providing

the greatest degree of job satisfaction after accepting employment in the district. It would seem that the above items would weigh heavily on the minds of shortage area teachers contemplating a possible move from the district. Administrative energy could be focused into areas such as those mentioned above in an effort to enhance the currently employed teachers' satisfaction with the district.

10. Share responsibilities for recruiting with other districts. It is not uncommon for two Iowa school districts to share vocational agriculture or learning disability teachers. A natural outgrowth of the shared teacher concept would be for the districts to begin working jointly on recruitment activities.

There are trends which will make cooperative efforts in teacher recruitment more attractive to smaller districts in the future. The financial stress placed on districts generally by declining enrollment will create a more favorable climate within which cooperative efforts may grow. Information from this study indicates that smaller districts use a larger proportion of their actual budgets (per student) for their recruitment programs than do larger districts. Not only is the need for shortage area teachers expected to remain strong, but proportionately more must be spent of diminishing resources for recruitment activities. This, indeed, presents a difficult dilemma for small school district administrators. Forming a multi-district recruitment consortium either by size or geographic location of districts in an effort to combine recruitment program efforts might prove to be effective in the future.

11. Long term planning. Few of the districts surveyed indicated that they did long term planning, even though they described this item as important.

It is suggested that information from this study might well provide the springboard for discussion with district's administrative staffs. Generally, it is suggested that materials in the forms of tables from Chapter 4 and summary information presented in Chapter 5 in this study may be valuable to focus discussion upon for improving an administrative team's teacher recruitment program. Following is a list of nine (9) suggested question areas which might help to begin such an effort.

1. Which administrator will coordinate recruitment efforts for the district?
2. Has administration effectively and realistically identified the strengths of this district? In other words, what does the local district have to offer a prospective candidate?
3. What recruitment activities are being used now? Which of these tend to be underused? Which tend to be overused?
4. Are there activities which, if infused into the total recruitment program, would make it more effective in attracting candidates the districts want and need?
5. When is the optimum time to begin each activity? How often should each occur? Which activities should be continuous throughout the entire year and which should be cyclical? In other words, who is to contact the university/college placement offices and how often are they to do it?
6. Have all the resources been identified? Are there additional staff, business leaders, service club representatives, community and other volunteers who could provide assistance to the recruitment team in the

future? Have adequate administrative team time and adequate budget been set aside?

7. Who will assume major responsibility for each activity?
8. How will the person with responsibility report progress to other team members? How will the team report to its constituents?
9. When will the administrative team meet to evaluate its progress? How will progress be measured in the district?

A quote from industry on long term planning lends further support to the ideas presented in this section.

The fact that a good company has a carefully planned recruitment program is as good a sign of effective management as almost any other single index. The reason for this broad statement is that poor management cannot produce a good recruitment program. Effective recruiting means that there has been a determination as to further needs; that the kind of people required have been ascertained, the value of positions has been determined, contacts have been established, material has been prepared; and the whole process of demand and supply, as well as company policies and management attitudes, is constantly under study (27, p. 37).

12. Build an ethical framework for viewing the information presented under the previous headings. Apparent relationships do exist between certain district recruitment activities and the reasons teachers in the areas sampled gave for accepting employment in the district.

The results would tentatively seem to support the idea that districts should not treat recruitment activities equally but should use instead particular patterns of recruitment activities which take into consideration the district's strengths and limitations, as well as the kind of a candidate who is sought. The reader is cautioned to understand that as with any study which is on the "edge" of comprehending a larger picture, it should not be used to begin to tailor a finely tuned recruitment program with

great certainty that its use will assure the attraction of candidates with just the "right" attributes.

Recommendations for Additional Research

1. The question of whether or not candidates with opportunities for four or more interviews are actually stronger candidates as measured by external criteria such as academic standing seems to be a fruitful area for further study.
2. Further study might focus on job turnover rates for shortage areas and other teaching disciplines as related to district size.
3. In the future, the variables of sex and age might be considered as they relate to many of the same hypotheses found in this study.
4. Future study of the correlational data revealed in Chapter 4 should help in validating more finely those specific activities which attract particular kinds of teachers. This could then be taken with various forms of external quality variables to produce an extremely effective "recruitment grid."

Summary

"Recruitment should be considered as a long term investment in human capital. The significant payoff might not come for five years" (35, p. 80). Nothing in this study contradicts the importance of recruitment activities and certainly there is evidence to support the possibility that in future years more precise control over the areas of recruitment activities would significantly improve local districts' teacher recruitment programs.

BIBLIOGRAPHY

1. Annual Statistical Report to Iowa School Districts. Research Department, Grant Wood Area Educational Agency: Cedar Rapids, Ia.: November, 1980.
2. A Resource Handbook of Fact and Figures for Cedar Rapids: A Guide to Iowa Department of Job Service Statistics. Iowa Department of Job Service: Cedar Rapids, Ia., 1980.
3. Argyris, Chris. Integrating the Individual and the Organization. John Wiley and Sons: New York, 1964.
4. Arnold, Anne Jurma. Where the Jobs Are: Learning, Vol. 9, No. 9, April-May, 1981, p. 28-31.
5. Beach, Dale S. Personnel: The Management of People at Work. Macmillan Publishing Co.: New York, 1980.
6. Bredwell, Jo. Here Are Why's and How's of Putting Your Recruiting Message on the Air. Personnel Administrator, Vol. 26, No. 2, February, 1981, p. 45-50.
7. Butler, M. and Paisley, William. Factors Determining Roles and Functions of Educational Linking Agents with Implications for Training and Support Systems. Far West Lab: San Francisco, January, 1978.
8. Cameron, Vernon Wayne. The Development of Faculty Recruitment and Retention Guidelines for Departments of Music in Selected University & Colleges Supported by the Southern Baptist Convention. Unpublished Dissertation. University of Alabama, 1978.
9. Craig, Robert L. Training and Development Handbook: A Guide to Human Resource Development. McGraw-Hill: St. Louis, 1976.
10. Cronin, Richard J. Here Are Some Pros and Cons of Using Executive Search Consultants. Personnel Administrator, Vol. 26, No. 2, February, 1981, p. 31-34.
11. Davis, Donald E. and Nickerson, Jr., Neal C. Critical Issues in School Personnel Administration. Rand McNally and Company: Chicago, 1968.
12. Dunathan, Arni T. Teacher Shortage: Big Problem for Small Schools. Phi Delta Kappan, Vol. 62, No. 3, November, 1980, p. 205-206.
13. Elements of Sound Base Pay Information. American Society for Personnel Administration, 30 Park Drive, Berea, Ohio, 1981.

14. Endicott, Frank S. The Endicott Report 1981. Placement Center: Northwestern University, 1980.
15. Foltz, Roy G. Recruiting Communications. Personnel Administrator, Vol. 26, No. 2, February, 1981, p. 12-14.
16. Green, Edward J. and Kohn, Nathan. Selection, Hiring, and Training of Dental Auxiliaries. W. B. Saunders Co., Philadelphia, 1970.
17. Hansen, Cecil Ray. Practices and Procedures Used by Selected Utah Public School Districts in the Recruitment & Selection of Teachers. Unpublished Dissertation: Educational Administration. Brigham Young University, April, 1976.
18. Harris, Ben et al. Personnel Administration in Education: Leadership for Instructional Improvement. Allyn and Bacon: Boston, Mass., 1979.
19. Harris, Nancy. Recruiting and Selecting a Superintendent As Viewed by a School Board President. Educational Research Service: Arlington, Virginia, 1977.
20. Herzberg, Frederick. One More Time: How Do You Motivate Employees? Harvard Business Review, Vol. 46, No. 1, January-February, 1968, p. 53-62.
21. Howe, Trevor. Up-dated Summary Report of Teacher Supply and Demand in the 1970's for Iowa Public Schools. Iowa State University, Educational Placement Office, April, 1980.
22. Human Relations: Current Trends in School Policies. National School Public Relations Association, 1201 Sixteenth Street, N.W., Washington, D.C., 1972.
23. Iowa Educational Directory 1980-81 School Year. Department of Public Instruction: Des Moines, October, 1980.
24. Jucias, Michael L. Personnel Management. Richard Irwin, Inc.: Homewood, Illinois, 1975.
25. Kingsley, J. Donald. Recruiting Applicants for the Public Service. Civil Service Assembly: Chicago, 1942.
26. Lang, Carroll L. Teacher Recruitment - Problems, Promises, and Proven Methods. Prentice Hall, Inc.: Inglewood Cliffs, 1968.
27. Mandell, Milton J. Recruiting & Selection Office Employees. Research Report Number 27. American Management Association: New York, 1956.

28. Nie, Norman and Hull, C. H. Statistical Package for the Social Sciences. McGraw Hill Book Company, Second Edition: New York, 1975.
29. Orr, Fred L. A Descriptive Study of Selected Organizational Variables in Undergraduate Student Recruitment. Unpublished Dissertation. Ohio University, 1976.
30. Paul, Clyde. The Mathematics Teacher Shortage - Some Solutions. Mathematics Teacher, Vol. 74, No. 3, March, 1981, p. 173-178.
31. Perry, John Fletcher. Common Membership Recruitment Practices Characterizing the States That Had Been Most Successful in Increasing Memberships from 1973-1979. Unpublished Dissertation. University of Arkansas, 1979.
32. Pigors, Paul and Meyers, Charles. Personnel Administration. McGraw Hill: New York, 1961.
33. Raine, Ronald V. Selecting the Consultant. Personnel Administrator, Vol. 29, No. 12, December, 1980, p. 41-43.
34. Richardson, Reed C. and Stubblefield, Barbara. Recruiting, Selection, and Retention Practices of Small Business Firms in Utah. College of Business, University of Utah, 1963.
35. Sandberg, John. How Schoolmen Can Recruit Teachers More Effectively. Nations' Schools, Vol. 83, Vol. 6, May, 1969, p. 80-82.
36. Sells, Allen. Viewing Advancement on a Corporate Wide Plane. Personnel Administrator, Vol. 25, No. 12, December, 1980, p. 25-27.
37. Stahl, O. Glenn. Public Personnel Administration. Harper and Row: New York, 1976.
38. Stanton, Irvin S. Successful Personnel Recruiting and Selection. Amacom: New York, 1977.
39. Stone, C. Harold and Kendall, William E. Effective Personnel Selection Procedures. Prentice Hall, Inc., Englewood Cliffs, N.J., 1956.
40. Telford, Fred. The Principles of Public Personnel Administration. University of Delaware, Newark, Delaware, 1976.

ACKNOWLEDGMENTS

Appreciation is expressed by the researcher to all people who provided assistance during the preparation of this dissertation. Iowa school administrators and teachers completing the instruments included in the study have earned gratitude from the researcher.

In addition, committee members Dr. Norman L. Boyles, Dr. Ross A. Engel (major professor), Dr. Paul M. Muchinsky, Dr. Anton J. Netusil, and Dr. Clifford E. Smith provided valuable assistance through critical questioning during the planning of this study. Dr. Netusil's help was invaluable in preparing for statistical treatment of the data. Mrs. Carla Jacobson's suggestions regarding format for the final copy of the manuscript have also been helpful.

Special acknowledgment is given to my major professor, Dr. Ross A. Engel, for his generous and unselfish gifts of time and assistance during the writing of the study.

I also recognize and appreciate the sacrifices which my family has made so that I might have the opportunity to study at Iowa State University. I thank them for allowing me the freedom to choose.

APPENDIX A: ADMINISTRATOR LETTER AND INSTRUMENT

IOWA STATE
UNIVERSITY

College of Education
Professional Studies
201 Curtiss Hall
Ames, Iowa 50011

Telephone 515-294-4143

Dear Colleague:

Teacher shortages in critical areas are creating serious problems for Iowa schools. This is particularly an acute problem for small and medium sized school districts.

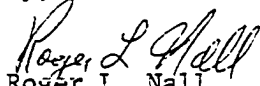
We ask that you please complete the attached information about your district's recruitment efforts as they relate to shortage areas. This confidential information will then be combined with information gained from surveying teachers in these areas in an effort to determine their reasons for accepting employment in the places they did. Because of the limited number of schools sampled, your answers are extremely important, and we are hoping your responses could be returned promptly.

Although the information is being collected for the completion of the requirements leading to the Ph.D. in Educational Administration at Iowa State University, the results of this study could provide your district with valuable information upon which to build a strong and effective recruitment program. If you have any questions regarding the procedures, please contact me at the address below.


Participation in this study is totally voluntary. If you participate and desire to receive the results of this study, please note this in the spaces provided. A summary of the results will be mailed to you in an effort to help you in tailoring a recruitment program for your district.

Sincerely,

(Researcher)


Roger L. Nall
Specialist Consultant
Grant Wood Area Educational Agency
Cedar Rapids, Iowa
(800-332-8488)

Major Professor:


Dr. Ross A. Engel
Professional Studies
in Education
Iowa State University
Ames, Iowa

Please check the Position(s) of Person(s) primarily Responsible for Recruiting in your district.

80

- _____ Superintendent
- _____ High School Principal
- _____ Junior High (Or Middle School) Principal
- _____ Elementary School Principal
- _____ Head Teacher
- _____ Other _____

District Name _____

Address _____

City where mail is received _____

K-12 Enrollment _____

Many diverse teacher recruitment activities have been identified. Please check those that your district has been involved in during the last calendar year. Please answer by circling the appropriate number on each item pertaining to your district's use and your judgement of that item's importance.

| | <u>Use in This District</u> | | | | | <u>Importance in This District</u> | | | | | | |
|--|-----------------------------|-------------|-----------------|--------------|---|------------------------------------|--------------|----------------|-------------|---|---|---|
| | Not Used | Little Used | Moderately Used | Greatly Used | | Not Important | Little Value | Moderate Value | Great Value | | | |
| | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| <u>IN-DISTRICT</u> | | | | | | | | | | | | |
| Bringing prospective teacher candidates into district for a visit. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Bringing prospective teacher candidates back for a second visit. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Assignment of one other person to help conduct district tour of prospective teachers. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Teacher job vacancies posted in district. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Assign currently employed teachers to help with recruiting activities of teachers. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Have adopted board policy on recruitment of teachers. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Helped a teacher within the district to gain certification in a shortage area. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Asked teachers currently employed for recommendations of prospective teacher candidates. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Worked with teachers' associations in teacher recruitment activities. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Administrator has had some formal contact with the local Future Teachers of American Chapter. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Gave a descriptive brochure about the district to prospective teachers. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Administrative team has done long term planning (2 years or more), in the area of recruitment of teachers. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Other _____ | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |

| Use in This District | | | | | Importance in This District | | | | | |
|----------------------|-------------|-----------------|--------------|---|-----------------------------|--------------|----------------|-------------|---|---|
| Not Used | Little Used | Moderately Used | Greatly Used | | Not Important | Little Value | Moderate Value | Great Value | | |
| 0 | 1 | 2 | 3 | 4 | 0 | 1 | 2 | 3 | 4 | 5 |

OUT-OF-DISTRICT

| | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|
| Placed Ad for teachers in <u>Des Moines Register</u> . | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Placed Ad for teachers in local paper. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Placed Ad for teachers in trade journal. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Produced video media ad for teachers. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Produced radio ad for teachers. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Periodic contact with placement officers from more than two colleges/universities. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Contacted Dept. of Public Instruction and/or Area Education Agency about listings of teacher candidates in shortage areas. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Contacted another district's administrative team in search for teacher candidates in shortage areas. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Teaching jobs posted in community. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Formed a district coalition with at least one other district to attract teacher candidates. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Asked teacher candidates to apply who had not applied for a position. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Teacher recruiting visits to college or university campuses. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Hired a consultant to help in recruiting teachers. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Generally, used professional contacts within the state of Iowa. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |
| Generally, used professional contacts outside the state of Iowa. | 0 | 1 | 2 | 3 | 4 | 5 | 0 | 1 | 2 | 3 | 4 | 5 |

Of those activities listed above, which three (3) has your district found most important?
Please list in rank order with one (1) as most important.

- (1) _____
- (2) _____
- (3) _____

How much effort has been spent in your district during the past year on teacher recruitment? What is your best estimate of:

- A. Mileage _____ Miles.
- B. Postage/Supplies \$ _____.
- C. Phone Calls \$ _____.
- D. Time of Secretarial Staff _____ Hours
- E. Time of Administrative Staff _____ Hours
- F. Your Time _____ Hours (Do not include in E)

How important do you feel recruitment efforts in your district are in relation to the quality of teachers eventually employed?

Please check one.

- 1 _____ 2 _____ 3 _____ 4 _____ 5 _____
 (Not Important at All) (Moderately Important) (Very Important)

Please submit the names of any teachers hired in your district within the last three (3) years in any of the following shortage areas. (Those who are still employed.)

Industrial Arts

Vocational Agriculture

Mathematics

Science

Learning Disabilities

Please supply the following information only if you would like to receive a summary of this study.

NAME _____

ADDRESS _____

APPENDIX B: TEACHER LETTER AND INSTRUMENT

IOWA STATE
UNIVERSITY

Telephone 515-294-4143

Dear Colleague:

Critical teacher shortage areas are creating serious problems for Iowa schools. This is particularly true for small and medium sized school districts.

We are asking that you please take some time from your busy schedule and help identify some reasons teachers in shortage areas give for accepting employment in the places they do. The data you provide will remain confidential. It is planned that with this information, recruitment activities in districts can be more effective in helping to attract candidates to places where their services are so badly needed. This research study is being done for my dissertation at Iowa State University.

Your participation in this study is totally voluntary. If you choose to participate in this special study and you request the information, a summary of the results will be mailed to you. It is hoped that these results might be of assistance to you and other teachers in the future.

If you have any questions concerning the procedures, please contact me at the phone number and address below. If you participate we hope your responses could be returned promptly. Thank you in advance for your cooperation.

Sincerely,



(Researcher) Roger L. Nall
Specialist Consultant
Grant Wood Area Education Agency
Cedar Rapids, Iowa
(800-332-8488)



Major Professor: Dr. Ross A. Engel
Professional Studies
in Education
Iowa State University
Ames, Iowa

A diversity of reasons have been identified as to why people might accept employment in the places they do. Please mark those that were important in your decision to take your current job. Please circle the appropriate response number for each item.

| | Degree of Importance | | | | | | Degree of Importance | | | | | | |
|------------------------------------|-------------------------|---|---|---|---|-----------------|--|-------------------------|---|---|---|---|---|
| | Not Important Little | 1 | 2 | 3 | 4 | | 5 | Not Important Little | 1 | 2 | 3 | 4 | 5 |
| | | | | | | | | | | | | | |
| <u>THE JOB</u> | | | | | | <u>CULTURAL</u> | | | | | | | |
| 1. District Size | 0 | 1 | 2 | 3 | 4 | 5 | 30. Near City | 0 | 1 | 2 | 3 | 4 | 5 |
| 2. School Building Size | 0 | 1 | 2 | 3 | 4 | 5 | 31. Cultural Events | 0 | 1 | 2 | 3 | 4 | 5 |
| 3. Philosophy of School | 0 | 1 | 2 | 3 | 4 | 5 | 32. Community Events | 0 | 1 | 2 | 3 | 4 | 5 |
| 4. Teacher Load | 0 | 1 | 2 | 3 | 4 | 5 | 33. City/Community Size | 0 | 1 | 2 | 3 | 4 | 5 |
| 5. AEA Support in My Teaching Area | 0 | 1 | 2 | 3 | 4 | 5 | 34. Church/Worship | 0 | 1 | 2 | 3 | 4 | 5 |
| 6. Facilities | 0 | 1 | 2 | 3 | 4 | 5 | <u>PERSONAL/VALUES</u> | | | | | | |
| 7. Status of Job | 0 | 1 | 2 | 3 | 4 | 5 | 35. Change of Pace | 0 | 1 | 2 | 3 | 4 | 5 |
| 8. Friendliness of Staff | 0 | 1 | 2 | 3 | 4 | 5 | 36. Administrative Style Compatible with Mine | 0 | 1 | 2 | 3 | 4 | 5 |
| 9. Friendliness of Administration | 0 | 1 | 2 | 3 | 4 | 5 | 37. Competence of Staff | 0 | 1 | 2 | 3 | 4 | 5 |
| 10. Reputation of District | 0 | 1 | 2 | 3 | 4 | 5 | 38. Chance for Advancement of Career | 0 | 1 | 2 | 3 | 4 | 5 |
| 11. Materials | 0 | 1 | 2 | 3 | 4 | 5 | 39. Chance to Continue Formal Education | 0 | 1 | 2 | 3 | 4 | 5 |
| 12. Policies | 0 | 1 | 2 | 3 | 4 | 5 | 40. Spouse's Job | 0 | 1 | 2 | 3 | 4 | 5 |
| 13. Discipline | 0 | 1 | 2 | 3 | 4 | 5 | 41. Chance to Use Special Skill | 0 | 1 | 2 | 3 | 4 | 5 |
| 14. Teacher Association | 0 | 1 | 2 | 3 | 4 | 5 | 42. Trust in District's Leadership | 0 | 1 | 2 | 3 | 4 | 5 |
| 15. Coaching Assignment | 0 | 1 | 2 | 3 | 4 | 5 | 43. Enriched Social Life | 0 | 1 | 2 | 3 | 4 | 5 |
| 16. Extra Duties | 0 | 1 | 2 | 3 | 4 | 5 | 44. Personal Growth | 0 | 1 | 2 | 3 | 4 | 5 |
| 17. Absence of Extra Duties | 0 | 1 | 2 | 3 | 4 | 5 | 45. Chance to Pursue Hobbies | 0 | 1 | 2 | 3 | 4 | 5 |
| <u>FINANCIAL</u> | | | | | | | | | | | | | |
| 18. Salary | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | |
| 19. Fringe Benefits | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | |
| 20. Personal Leave | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | |
| 21. Dental Insurance | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | |
| 22. Medical Insurance | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | |
| 23. Travel | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | |
| 24. Coaching/Extra Duty | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | |
| 25. Length of Vacation | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | |
| 26. In-Service | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | |
| 28. Housing | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | |
| 29. Cost of Living | 0 | 1 | 2 | 3 | 4 | 5 | | | | | | | |

Please check the following answer which applies to you.

86

I had _____ one
_____ two
_____ three
_____ four or more

Invitations to interview for a position during the time I was seeking a job.

Knowing what I know now about the district, which four (4) from the lists on page 1 would I still consider to be important to me in my present degree of satisfaction with my job in this district?

Please rank these four (4) with your highest degree of satisfaction in space one (1) by copying the numbers preceding your choices from the list.

(1) _____
(2) _____
(3) _____
(4) _____

Of the same previous list the three (3) which are most unsatisfactory to me now are:

Please rank these with most unsatisfactory beginning in space one (1) by copying the numbers preceding your choices from the lists on page 1.

(1) _____
(2) _____
(3) _____

Which of the following best describes the way you first heard of your present job being open?

Please check all that apply.

- _____ College/University Placement Office
- _____ Professor
- _____ Commercial Placement Agency
- _____ Newspaper - Printed Ad
- _____ Call From District Administration
- _____ Professional Organization
- _____ Professional Colleague/Friend
- _____ A Former Employer
- _____ A Family Member
- _____ I didn't know. I just wrote a letter to the district administrator.
- _____ Other _____

If you would like a copy of the summary of this study, please fill in the following information.

NAME _____
ADDRESS _____

APPENDIX C. FOLLOW-UP LETTER

Dear Colleague:

Because my records indicate I have not heard from you, I am providing you with another questionnaire in case the first one has been misplaced or lost in the mail.

Your participation in this study is totally voluntary; however, because of the limited number of teachers surveyed, your answers would be extremely valuable. The results will be mailed to you if you participate and request them.

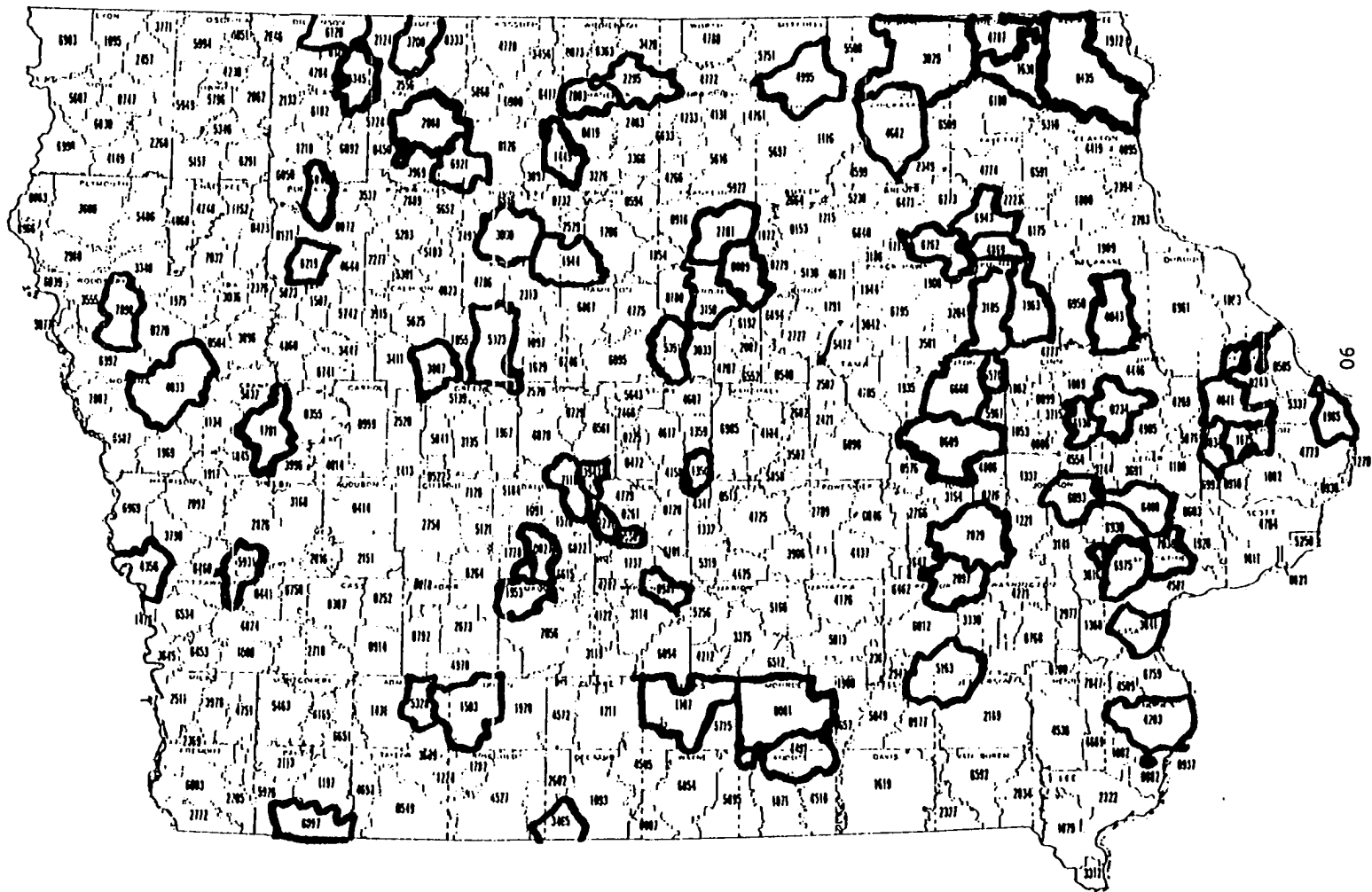
If you plan to participate, please reply by May 15, 1981. Thank you for your cooperation.

Sincerely,

APPENDIX D. LISTINGS AND LOCATIONS OF DISTRICTS IN SAMPLE

| <u>Small Districts</u> | <u>Approx. Size</u> | <u>Small Districts</u> | <u>Approx. Size</u> |
|-------------------------|---------------------|-------------------------|---------------------|
| Ackley Geneva | 700 | Prairie Community | 760 |
| Collins | 172 | Radcliffe | 330 |
| Corwith Wesley | 308 | Shelby | 360 |
| Delwood | 439 | Sioux Rapids-Rembrandt | 380 |
| Earham | 555 | Springville | 625 |
| English Valleys | 490 | Terrill | 322 |
| Lamoni | 460 | Urbana | 366 |
| Lincoln Central | 260 | West Burlington | 580 |
| Lost Nation | 290 | Williamsburg | 925 |
| Madrid | 600 | Woden-Crystal Lake | 240 |
| Maple Valley | 848 | Woodburn Central | 536 |
| Unnamed | 430 | Woodward Granger | 700 |
| Pekin | 608 | | |
| | | | |
| <u>Medium Districts</u> | <u>Approx. Size</u> | <u>Medium Districts</u> | <u>Approx. Size</u> |
| Allamakee | 1,958 | Independence | 1,850 |
| Adel-Desoto | 1,115 | Iowa Falls | 1,600 |
| Albia | 1,579 | Johnston | 1,270 |
| Anamosa | 1,560 | Louisa Muscatine | 1,127 |
| Benton | 1,396 | Maquoketa | 2,000 |
| Carlisle | 1,426 | Maquoketa Valley | 1,033 |
| Chariton | 1,604 | Mediapolis | 1,010 |
| Creston | 1,900 | Missouri Valley | 1,186 |
| Decorah | 1,800 | New Hampton | 1,774 |
| Denison | 1,800 | Osage | 1,350 |
| Eagle Grove | 1,247 | Saydel | 1,580 |
| Emmetsburg | 1,051 | Spirit Lake | 1,325 |
| Forest City | 1,409 | Storm Lake | 1,560 |
| Hampton | 1,230 | Tipton | 981 |
| Humboldt | 1,420 | Vinton | 1,578 |
| Howard Winneshiek | 1,790 | West Liberty | 1,120 |

PUBLIC SCHOOL DISTRICTS
Iowa Department of Public Instruction
1960 Analysis and Statistics Section



APPENDIX E. TABLE

Table 15. Correlation between recruitment activities used and reasons teachers in shortage areas gave for position choices

| Teacher reasons | Recruitment activities | | |
|--------------------------------|---------------------------|------------------------|----------------|
| | Bring candidate in | Assign another teacher | Job posting |
| District Size | | + ^a | - ^a |
| Building Size | | (.202) | (-.228) |
| Teacher Load | +* ^b (.400) | +* (.325) | |
| AEA Support | | | |
| Facilities | | | |
| Status of Job | | | |
| Friendliness of Staff | | | |
| Friendliness of Administration | | | |
| Reputation | | | |
| Policies | | | |
| Discipline | | | |
| Teacher Association | | | |
| Absence of Extra Duties | | | |
| Salary | | | - (-.184) |
| Fringe Benefits | | | |
| Personal Leave | | | |
| Dental Insurance | | + (.199) | |

^a(+) or (-) indicate significance at the .05 level.

^b(+*) or (-*) indicate significance at the .01 level.

| Recruitment activities | | | | | |
|--|----------------------|------------------------|------------------------|--------------------|----------|
| Use currently employed teachers | Recerti- fication | Teacher recruitment | Teacher association | Contacts F.T.A. | Brochure |
| | + | | | | + |
| | (.185) | | | | (.230) |
| | | | | | + |
| | | | | | (.144) |
| | + | | | | |
| | (.182) | | | | |
| | | | | | + |
| | | | | | (.229) |
| | | + | + | | + |
| | | (.261) | (.184) | | (.177) |
| | + | + | | | + |
| | (.172) | (.181) | | | (.163) |
| | | | | | + |
| | | | | | (.213) |
| | | | | | |
| | | | | | + |
| | | | | | (.186) |
| | | | + | | |
| | | | (.169) | | |
| | | | | + | |
| | | | | (.186) | |
| | + | + | | + | |
| | (.170) | (.167) | | (.167) | |
| | | + | | + | |
| | | (.167) | | (.208) | |

Table 15. (continued)

| Teacher reasons | Recruitment activities | | |
|--------------------------------|------------------------|----------------|---------------------|
| | Long term planning | Local paper | Placement office |
| District Size | | | |
| Building Size | | | |
| Teacher Load | + | - | |
| | (2.14) | (-.202) | |
| AEA Support | | | |
| Facilities | | - | |
| | | (-.197) | |
| Status of Job | | | + |
| | | | (.181) |
| Friendliness of Staff | | | |
| Friendliness of Administration | | - | |
| | | (-.191) | |
| Reputation | | | |
| Policies | | - | |
| | | (-.236) | |
| Discipline | | | + |
| | | | (.235) |
| Teacher Association | | | |
| Absence of Extra Duties | | | |
| Salary | + | - | |
| | (.185) | (-.199) | |
| Fringe Benefits | | - | |
| | | (-.211) | |
| Personal Leave | | | + |
| | | | (.211) |
| Dental Insurance | | | + |
| | | | (.212) |

| Recruitment activities | | | | |
|----------------------------|-------------------|-------------------|-------------------|------------------------|
| Another administrator | Community posting | Sought candidates | University visits | Activities within Iowa |
| | | | +* (.347) | |
| | | | +* (.346) | |
| | | + (.170) | | + (.179) |
| _* ^b (-.235) | | | | |
| | | - (-.171) | | |
| | | | + (.176) | |
| + (.173) | | | | |

Table 15. (continued)

| Teacher reasons | Recruitment activities | | |
|---------------------------------|--------------------------|------------------------------|----------------|
| | Bring candidate in | Assign another teacher | Job posting |
| Medical Insurance | | | |
| Vacation | | | -* |
| Inservice | | | (-.293) |
| Cost of Living | | | |
| Cultural Events | | | |
| City Size | | | - |
| Worship/Church | | | (-.175) |
| Compatible Administration Style | | + | |
| Staff Competency | | (.217) | |
| Advancement | | | |
| Spouse's Job | | | |
| District's Leadership | + | | |
| Enriched Social Life | (.248) | | |
| Personal Growth | | | |
| Hobbies | | | |

| Use currently employed teachers | Recruitment activities | | | | |
|--|------------------------|------------------------|------------------------|--------------------|----------|
| | Recerti- fication | Teacher recruitment | Teacher association | Contacts F.T.A. | Brochure |
| | + | + | | | |
| | (.210) | (.189) | | | |
| | | | | ++ | |
| | | | | (.276) | |
| | | | ++ | + | |
| | | | (.242) | (.211) | |
| + | | | | | |
| (.207) | | | | | |
| | | ++ | | | |
| | | (.290) | | | |
| | | + | | | |
| | | (.182) | | | |
| | | + | | | |
| | | (.232) | | | |
| | | | | | |
| | | | | | |
| -* | | - | | | |
| (-.271) | | (-.187) | | | |

Table 15. (continued)

| Teacher reasons | Recruitment activities | | |
|---------------------------------|------------------------|----------------|---------------------|
| | Long term planning | Local paper | Placement office |
| Medical Insurance | | | + (.203) |
| Vacation | | | + (.171) |
| Inservice | | | +* (.231) |
| Cost of Living | | - (-.179) | |
| Cultural Events | | | |
| City Size | + (.203) | | |
| Worship/Church | + (.194) | | + (.225) |
| Compatible Administration Style | + (.219) | - (-.204) | |
| Staff Competency | | | + (.210) |
| Advancement | | - (-.217) | + (.272) |
| Spouse's Job | | | |
| District's Leadership | | -* (-.233) | |
| Enriched Social Life | | | |
| Personal Growth | - (-.176) | -* (-.200) | + (.172) |
| Hobbies | | | |

| Recruitment activities | | | | |
|------------------------|-------------------|-------------------|-------------------|------------------------|
| Another administrator | Community posting | Sought candidates | University visits | Activities within Iowa |
| | | | + | |
| | | | (.197) | |
| | - | | | |
| | (-.175) | | | |
| | | | + | |
| | | | (.211) | |
| | | | - | |
| | | | (-.190) | |
| - | | | | |
| (-.193) | | | | |
| -* | | | | |
| (-.191) | | | | |
