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Selection factors related to satisfaction, persistence, and job performance for technical writers at the Iowa State University Child Welfare Project

Mary Jean Loven
Iowa State University

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Selection factors related to satisfaction, persistence, and job performance for technical writers at the Iowa State University Child Welfare Project

by

Mary Jean Loven

A dissertation submitted to the graduate faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Education (Higher Education)

Major Professor: Daniel C. Robinson

Iowa State University

Ames, Iowa

1998
Graduate College
Iowa State University

This is to certify that the Doctoral dissertation of

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has met the dissertation requirements of Iowa State University

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CHAPTER I. INTRODUCTION

A growing trend in colleges and universities is to expand the public role of the institution to include cooperative agreements with other governmental agencies. Iowa State University (ISU) has, through its Department of Human Development and Family Studies in the College of Family and Consumer Sciences, contracted with the Iowa Department of Human Services, Bureau of Collections (BOC). The resulting Cooperative Reimbursement Program Extension Agreement is part of the Child Research and Training Project and assists BOC by providing economical training and other administrative services.

Background

As part of this agreement, Iowa State University recruits, hires, and maintains staff to provide technical writing assistance for development of policies and procedures for the department's employee manual, specifications for the computer system, and necessary and essential administrative support services (BOC/ISU, p. 2). Technical writers play a major role in the development of policy and system enhancements while working as part of a team.

Bureau of Collections

The Bureau of Collections, Iowa Department of Human Services, is the single state agency responsible for administration of the Title IV-D program of the Social Security Act, which provides for child support establishment, enforcement, and modification services. BOC serves individuals who are currently receiving public assistance (Family Investment Program, Medicaid, or Foster Care). It also serves individuals who are former recipients of public assistance and support is still owed to the state or federal government for public
money spent. Other individuals who are not or were not on public assistance may also apply for services.

BOC has 20 area offices statewide with a total caseload of over 150,000 child support cases. It employs a highly complex and sophisticated automated data processing system, the Iowa Collection and Reporting System (ICAR) to assist in providing efficient services to customers. ICAR provides valuable assistance in tracking, recording, and triggering case actions, based on information received from other automated data sources, from recording of payments, or from worker actions recorded on the system. BOC provides the following services with the ultimate goal of securing on-going support for children:

- Location of custodial and non-custodial parents
- Establishment of paternity through a judicial process and an administrative process
- Establishment of medical and child support orders through an administrative process, a judicial process, and through registration of another state’s support order
- Review and modification of support obligations
- Enforcement of child support obligations through income withholding, tax offsets, levies of bank accounts, license sanctions, seek employment orders, referrals to credit agencies, contempt of court actions, and garnishment actions
- Receipt of child support payments
- Credit of support to the non-custodial parent’s account
• Determination of who or what entity receives the support
• Suspension and reinstatement of child support obligations
• Monitoring accounting records
• Filing required federal reports.

Members of the public are able to contact child support offices to secure information. An audio response unit is available for parents to call and learn the date and amount of their last child support payment. A specialized customer service unit, located in Des Moines, receives and answers telephone inquiries. Caseworkers mail correspondence, forms, and status letters to families to keep them informed and to seek information necessary for case action.

The central office, located in Des Moines, Iowa, provides program direction, policy development and oversight, and automated data system development and coordination. It also receives and distributes child support enforcement referrals from other states. The Collection Services Center receives and distributes child support payments.

**ICAR computer system**

The ICAR system includes screens that aid workers in recording, tracking, and identifying actions needed in location, establishment, and enforcement processes utilized in the operation of the IV-D program. The system assists workers to meet demanding time frames established for managing an increasingly demanding caseload. Screens are organized to coincide with various functions performed by staff. Four features, especially, help staff perform case work.
Calendar Flags. A prioritized list of all actions that need to be taken on a worker’s caseload includes calendar flags, which are generated by on-line entries and batch programs. They describe an action that is needed on an identified case.

Narratives. A case history includes information about actions taken by the worker and by the system. Each entry is called a narrative.

Forms. ICAR includes over 100 forms which are used during case management. These are automatically generated through batch programs or through worker action.

Status reports or letters. Parents must be informed of actions taken on their cases. The system automatically generates these status updates which are a quick method to generate a request for information, a reminder, or a simple informational note.

**Job functions for ISU technical writers**

ISU technical writers work as part of team to develop and implement child support policy. Specific job functions include the following activities:

1. Assist in researching federal and state laws, administrative rules, regulations, policies, and procedures which affect the child support program and make recommendations regarding changes and actions necessary to ensure compliance of Iowa’s program with the federal Family Support Act.

2. Assist in developing, writing, and revising administrative rules to implement new policies, laws, or regulations or to make changes to current policies, laws, and regulations.
3. Assist in developing, writing, and revising the Department Employee Manual, forms, and general letters to implement new or revised policies, procedures, laws, or regulations.

4. Assist in developing, writing, and revising computer system user requirements and coordinate with data processing staff to ensure that the computer system meets the requirements of the federal Family Support Act.

5. Assist in writing test plans, developing test data, and perform user acceptance testing for computer system programs.

6. Solicit, collect, and summarize information about current state practices on a variety of child support issues in order to understand the impact that policy and procedural changes will have on the persons responsible for implementing changes.

7. Assist in developing and preparing studies or reports, collecting data, recommending plans or solutions to problems within the Bureau of Collections.

8. Research and write responses regarding the impact of proposed federal regulations.

9. Review program changes and draft procedural directives for implementation of the changes and answer questions regarding the procedures.

10. Participate as a member of an assigned team so that a variety of perspectives regarding implementation issues are addressed.
Other Team Members

The Bureau of Collections employs other individuals in the following roles:

1. **Team Leaders.** Nine Program Planner 3’s and three Management Analyst 3’s (State of Iowa employees) have been hired since January 1994. These individuals coordinate the work assigned to each of their teams. They are required to have excellent facilitation, organizational, and problem-solving skills. They perform many of the same functions as the technical writers, but also review written materials, provide feedback on field office issues, and meet with management personnel to set priorities, provide task progress updates, and resolve problems and conflicts.

2. **Program Planner 2.** This position is very much the same as the technical writer position; however, these individuals are State of Iowa employees. BOC focuses more on computer skills and experience working in a field office when hiring PP2’s. Of the eight individuals who have been hired for this position since January 1994, seven had previous child support field office experience.

**ISU supervisor role**

Iowa State University hires and maintains a supervisor who is responsible for the activities of the technical writers. This supervisor also participates in committee and policy meetings with BOC staff.
**BOC staff role**

BOC staff provide review and comment on manual material, policies, procedures, and other written material; provide review and comment on computer specifications; provide access to the on-line computer system; and provide necessary equipment and supplies.

**Contract features**

The current contract between Iowa State University and the Bureau of Collections, Iowa Department of Human Services, runs from October 1, 1996, through September 30, 2001. This was an extension of a contract begun prior to the hiring of the first technical writers in January 1994. The arrangement with ISU allowed BOC to hire technical writers who had the education and work experience required to perform the duties of the position. It had been difficult to attract persons with the required background through regular recruitment methods. Since contracting with ISU, many highly qualified individuals have been interviewed and hired for technical writer positions.

**Recruitment methods**

Iowa State University advertises its openings in the university's Job News bulletin which is read by individuals state- and nation-wide in other universities and college placement offices and human resource departments. Many individuals ask the university to send its list of job openings each week so they can keep up with openings that arise. ISU also lists its job openings on its web site (www.iastate.edu). ISU advertises regularly in the *Des Moines Register*, the state’s largest newspaper, which has a comprehensive and widely-read employment section in its Sunday edition.
The technical writer position title is Human Service Specialist II - Technical Writer. The Employing Unit is Human Development and Family Studies. The listing indicates that the position is located in Des Moines, that it is a term appointment until 9/30/2001, and that continuation beyond that date depends upon contract renewal. See Appendix A for a complete Notice of Vacancy.

**Position Description:**
Under general supervision, work as part of a team on analysis and development of policies and procedures for Child Support Recovery. This job includes a wide variety of writing assignments and styles, including writing the Department of Human Services Employee’s Manual for the Child Support Recovery Unit and developing data processing specifications to assure the mainframe computer system meets Federal requirements. Tasks include analysis of how each step in the new data processing system fits within Federal and State regulations and determining if the new enhancements are in compliance with the regulations. Written policies and procedures are based on Federal regulations, the Code of Iowa, and the Iowa Administrative Code. Two of these positions will focus on Child Support’s receipt and distribution system. Candidates wishing to apply for these two positions should possess a degree or a strong background in economics.

**Qualifications:**
Required: Bachelor’s degree in Human Services, Public Administration, or related field with emphasis in writing, researching, and interpreting policies. Must have excellent verbal and written communication skills and the ability to work as part of a team. Must have at least three years experience in compiling, reporting, examining, and/or editing technical materials.

Interested individuals are encouraged to apply by sending a letter of application, resume, and names and phone numbers of three references to the project manager at Iowa State University. When the project manager receives the applications, she forwards them to the policy supervisor at the Bureau of Collections for review. BOC staff review the applications once the due date has passed and proceed with the hiring process.
**Hiring process**

BOC staff proceed by sending a letter to each of the applicants, asking them to provide a summary of their qualifications in relation to six key areas:

- Communication skills (oral and written)
- Problem-solving skills
- Team player ability
- Organizational skills
- Computer user requirements
- Role of the agency

After receiving the summaries, BOC staff score the application materials. A Technical Writer Application Screening Chart is completed for each individual who has replied to the request for a summary (See Appendix B). Staff use this screening mechanism to assign points for background elements including education; experience (within child support, within the Department, or within other human service organizations); qualifications related to those listed on the summary; and the actual application materials (resume, letter, and summary). Then BOC staff determine how many applicants to interview (depending upon the number of openings and the amount of staff time available to spend on the interviewing process) and call in the highest scoring individuals.

**Interviewing**

The interview process consists of two parts. First, BOC staff interview the individuals according to an established format. Interviewers begin by giving a short history of child support recovery in Iowa, describing the extent of Iowa’s program, describing the
technical writer position, and discussing salary and benefits (see Appendix C). Then they continue with a standard list of questions asked of each candidate (see Appendix D). This normally takes about an hour, depending upon the number of questions asked by the candidate. During the interview, candidates are asked to sign a release of information so that BOC staff can contact references.

The second part of the interview process begins when the candidate completes a writing exercise. This may consist of writing a response to a customer who is unhappy about circumstances surrounding a child support payment (see Appendix E). The interview process is complete when the individual finishes the writing exercise (usually about an hour) and turns it in to the designated individual.

Following the interview, BOC staff analyze the interview by scoring each individual question according to benchmark answers that have been developed that indicate desired work qualities and experience. They also analyze the writing exercise and score it according to established criteria (see Appendix F). Scores are given on the mechanics of the written product, including spelling, grammar, and punctuation. The exercises are also rated on completeness of answers, conciseness, appropriate language level and use of words, and a clear and logical progression of the argument.

BOC staff tally the scores for each individual on the interview and on the writing exercise. Staff contact references for the highest scoring individuals (see Appendix G). Reference information is used mainly to confirm the results of the interview or to help spot red flags that were not uncovered during the course of the application or interview process.
BOC staff analyze the results considering strengths and weaknesses, work styles, and job history. BOC staff make recommendations to the Iowa State University Project Manager concerning which individuals they’d like to hire. After receiving all paperwork from BOC staff, ISU proceeds with the final stages of the hiring process including the final offer and establishment of the start date. The individuals are employees of Iowa State University, with their job site being the BOC office. ISU provides personnel services, benefits, wages, an orientation to ISU employment, and ongoing training. BOC staff provide resources, direction, training, supervision, and evaluations.

**Statement of the Problem**

The first three technical writers were hired in January 1994. Since then twenty others have accepted positions. Ten of these individuals are still technical writers. Five individuals have left the position as technical writer but have moved into other positions with the Bureau. Four others have left and are working for the state in other departments or for ISU. Four individuals have left ISU and state government entirely.

The problem to be examined in this study is the relationship between several variables and the satisfaction, persistence, and job performance of ISU technical writers working for the Bureau. No organized study of this nature has been performed since the beginning of the contract between ISU and BOC. This study will inform future hiring decisions for technical writers by identifying the factors most affecting satisfaction, persistence, and job performance.

The subjects of the study are 17 of the 23 technical writers hired between January 1994 and January 1997. Data were gathered by examining the application materials provided
by each individual to the interviewer (application, letter, summary), the written exercise completed during the interview, references, results of a survey completed by each individual, a face-to-face interview with the researcher, and rankings by the policy or operations supervisor.

Eighteen of the twenty individuals working as PP3's, PP2's, and MA3's during the same time period were also studied. The process for hiring these employees is varied and often unstructured compared to the highly structured and detailed process of interviewing and hiring technical writers. Available information was gathered and analyzed to compare how well factors used in each process predict persistence, satisfaction, and performance. Of the 20 individuals hired into the state positions, 15 are still with the Bureau, 2 have left state government entirely, 2 are working in other state positions, and 1 person works in another ISU position on campus.

Although the numbers in this study are small (17 technical writers and 18 BOC employees), they are representative of many small institutions or departments within larger ones. Thirteen technical writers and five BOC employees left their positions between January 1994 and April 1998. This means that it was necessary to recruit, interview, hire, and train eighteen new people to perform their duties, causing an expense that might have been lower if closer attention had been paid to pre-employment conditions. The technical writer and program planner positions at the BOC have very complex duties and require a high level of skill in writing, problem solving, communicating, and using the computer. Since these positions require such advanced skills, it is important to retain people once they have developed the required competencies.
**Purpose of the Study**

The purpose of this study was to see if there was a significant relationship between the variables studied and whether the individual persisted, was satisfied with the position, and performed well. Another purpose was to see if there were significant differences in mean scores on pre-employment variables between technical writers and state BOC staff. Since the sample size for technical writers was small (n=17), the researcher elected to add a qualitative aspect to the study by asking each individual to complete a survey (Appendix H) and to answer several questions in a face-to-face interview (see Appendix I). These techniques were also used to gather information about the other BOC employees in the comparison group.

**Definition of Research Variables**

The following variables were used to investigate the relationship between pre-employment, interview, and follow-up variables with *persistence, satisfaction*, and job *performance*.

- College major. Individual resumes were examined to determine college major.
- Technical writing educational background and experience. Resumes were examined and follow-up questions were pursued during the interview to determine related experience and education.
- Teamwork experience. Information provided on the summary related experience within a teamwork atmosphere.
- Computer knowledge. Information provided on the resume and on the summary related the level of computer knowledge.
- Problem solving ability. A question during the interview asked this question, plus information was provided on the summary.

- Child support or human services experience. The resume and application provided this information which indicated the depth and breadth of experience in similar agencies.

- Organizational skills. Responses to a question during the interview and an item on the summary provided this information.

- Strength of the resume, application, and summary. BOC staff rated each of these items on the Technical Writer Application Screening Chart prior to inviting individuals in for interviews.

- Scores on the interview and written exercise. BOC staff scored each question on the interview according to benchmarks established prior to the interview. Likewise, written exercises were scored according to pre-established criteria.

- Identity of the interviewer(s). The interviewer of all candidates was not the same person. An item on the survey asked for a subjective rating of the effect the interviewer had on the dependent variables in question.

- Reference score. This score is the cumulative score of the individual references checked on each of the candidates.

- ISU employee status. A question on the survey asked individuals to rank the importance of being an ISU employee related to each of the dependent variables.

- Initial training. A question on the survey asked individuals to rank the training received at the beginning of their tenure in relation to the dependent variables.
• Job site. Since the position is located in the Hoover Building in Des Moines, a question was asked regarding the effect of the location on individuals' persistence, satisfaction, and performance.

• Team leader. Depending upon the work process teams needing assistance at the time the individuals began their positions, they were assigned to various teams. Each team has a team leader. Individuals were asked to rate the effect of the team leader to whom they were assigned related to the dependent variables.

• Supervisor. Individuals were asked to rate the effect of the BOC supervisor in relation to their persistence, satisfaction, and performance.

• Orientation activities. Various orientation activities occur when a new technical writer starts at BOC. Individuals were asked to rate the effect these activities had on their own persistence, satisfaction, and performance.

Assumptions

For the purpose of conducting this research, a general assumption was made relating to the hiring and subsequent tenure of technical writers at the Bureau of Collections: that each individual went through basically the same pre-interview process consisting of responding to the position opening, interviewing with at least one BOC staff member, performing a written exercise, and beginning work at the Hoover Building work site.

Research Hypotheses

The purpose of this study was to see if there were significant relationships between the various variables and the technical writers' persistence, satisfaction, and job performance. The comparison group study was conducted to determine if the interview and
selection process for technical writers produced more accurate predictions of the relationship between pre-employment factors and the writers' persistence, satisfaction, and performance.

There are five primary research questions.

- The first is, "Is there a significant difference in persistence, satisfaction, and performance scores between individuals who were hired for technical writer positions and individuals who were hired for state Bureau positions?"

- The second is, "Is there a significant difference in mean scores for application score, education in years, child support experience, human service experience, other related experience, interview score, reference score, summary score, and writing score recorded between individuals who were hired for technical writer positions and individuals who were hired for state Bureau positions?"

- The third is, "Is there a significant relationship between application score, education in years, child support experience, human service experience, other related experience, interview score, reference score, summary score, writing score and persistence (the length of time the technical writer remained employed by ISU as a technical writer)?"

- The fourth is, "Is there a significant relationship between the selection variable (application score, education in years, child support experience, human service experience, other related experience, interview score, reference score, summary score, and writing score and the level of satisfaction each individual felt)?"

- The fifth question is, "Is there a significant relationship between application score, education in years, child support experience, human service experience,
other related experience, interview score, reference score, summary score, writing score) and the job performance of the individual as ranked by the BOC supervisor?"

**Significance of the Study**

This study is significant because it is the first time anyone at the Bureau of Collections or Iowa State University has conducted research on the hiring of technical writers to work at the Department of Human Services, Bureau of Collections. It is the intent of this researcher to provide information to both the Bureau of Collections and ISU evaluating the effectiveness of current practices in hiring technical writers who are ISU employees but who are contracted to do work for the Bureau of Collections.

The information provided will assist both parties as they try to improve the process to more accurately predict which individuals will perform job requirements well, which individuals are likely to continue employment, and which individuals will be satisfied with their positions as technical writers. Understanding the interrelationships and strengths of variables is important to increasing hiring officials’ ability to choose the best candidates and prevent costly hiring mistakes.

It is also the intent of this researcher to discover some of the qualities of the position which cannot be uncovered by statistical analysis, but which can be discovered through subjective, naturalistic methods. Face-to-face interviews will provide much of this “rich” description of the atmosphere and employee interaction at the Bureau of Collections.

One of the aims of the higher education program at Iowa State University is to provide graduate instruction and leadership development in higher education administration.
The higher education curriculum includes courses in college personnel policies and procedures, financing higher education, and college organization and administration. This project aligns with curriculum goals since it will inform the researcher, ISU, and BOC about the human resources administrative function within higher education institutions, especially those with cooperative agreements with other agencies.

This study addresses many of the topics covered in those classes, including hiring and performance appraisals. Higher education administrators must be concerned about "hiring the best people" for its positions. This is a critical function in any environment, and equally important in a higher education context.

The research cited in Chapter II helps the reader to identify the importance of sound selection practices for organizations, to examine various techniques for choosing individuals who can handle the work as well as the culture of the organization, and to understand the relationship between pre-employment activities and ultimate performance, satisfaction, and persistence. This researcher has produced solid inquiry which will contribute to the body of literature on the topic of employee selection and retention.

This research focuses on current and previous employment selection for these university employees and informs readers how to make current hiring processes even better, avoiding costly mistakes when an individual is chosen who doesn't have the skills, knowledge, or stamina for the position.

Chapter III describes the research design and methodology used in this situation to illustrate ways for readers to construct their own research about selection procedures in their own organizations. Chapter IV describes the population studied and the findings of this
research project. Finally, in Chapter V, the researcher has summarized the results of the data analysis and offers implications for ISU, for the Bureau of Collections, for the higher education community, and for any other organizations that want to ensure they hire the best people.

Another increasingly visible topic of interest in higher education institutions is the desirability of forming alliances with businesses and other government agencies. The Iowa State community prides itself on reaching out to translate knowledge into action and to serve as a resource for strengthening and enhancing the social, economic, and physical environment of the state, the nation, and the world (General Catalog, 1997). Since the university has made the effort to reach out to the community in this way, by cooperating with the Department of Human Services through the Child Research and Training Project, it is logical to assume that investigations into its effectiveness are worthwhile and appropriate.

Finally, it is the intent of this researcher to formulate questions for further research.

Definition of Terms

The following definition of terms will help the reader understand this study:

- **Bureau of Collections.** BOC is a bureau within the Iowa Department of Human Services which is responsible for child support recovery services in the state of Iowa.

- **Child Welfare Research and Training Project.** This project is part of the Department of Human Development and Family Studies in the College of Family and Consumer Sciences at Iowa State University. The Cooperative
Reimbursement Extension Agreement entered into by ISU and the Bureau of Collections is a part of this project.

- **Child Support Recovery.** The Bureau of Collections is responsible for meeting federal and state requirements for provision of services to families to ensure that child support obligations are paid to children.

- **Iowa Collection and Reporting System.** ICAR is the mainframe computer system used by the Bureau of Collections to support the child support recovery program.

- **ISU.** Iowa State University is an Iowa Regents institution located in Ames, Iowa, a central Iowa city.

- **Performance.** An individual’s rating on a scale of 1 to 5 of how well the individual performs the duties assigned. Technical writers and state Bureau staff are scored on writing, analysis, coordination, computer, and task management skills.

- **Persistence.** An individual rating of length of service as a technical writer or as a Bureau employee.

- **Satisfaction.** An individual’s self-rating of job satisfaction.
CHAPTER II. REVIEW OF LITERATURE

Published information on hiring procedures is widespread. Information is available on predicting performance, techniques for effective hiring, fairness in employee selection, turnover, job satisfaction, and interviewing skills. Therefore this researcher felt it was necessary to narrow the focus of the literature search to include information most relevant to the current study.

The literature search was carried out by obtaining various books, journal articles, ERIC documents, and reports. A search of the ERIC (Education Resources Information Center) database revealed several current articles and reports. A search of the Iowa state computerized card catalog (ICAT) yielded several resources on the topic of personnel selection and interviewing. Another search of the periodicals index revealed many articles on similar topics related to this study. This literature has been divided into relevant topics: (1) interviewing, (2) applicant scoring, (3) employee satisfaction and persistence, (4) job performance, and (5) predictors of success.

Several theories influence much of the body of literature including:

- **matching paradigm**—there is a “goodness of fit” between individuals and organizations’ needs and possibilities (Boerlijst & Meijboom, 1989)
- **modern systems theory**—certain inputs (raw materials, people, information) produce certain outputs (products, services) within a certain kind of environment (political, competitive, social) (Howell & Dipboye, 1982)
• *performance*—actions or behaviors that are relevant to the organization’s goals and that can be measured in terms of proficiency (Campbell, McCloy, Oppler, Sager, 1993)

• *predictor constructs*—some aspect of a person which, if assessed, has relevance to predicting future behavior (Klimoski, 1993)

• *employee tenure*—organizations benefit from an individual’s increased productivity as long as the individual stays (Cascio, 1993)

• *selection criteria*—measuring the contribution of the individual to the overall efficiency of the organization by criterion development and job analysis (Greuter & Algera, 1989)

• *interviews and applicant attraction model*—emphasis on recruitment versus selection flows from the labor market (Rynes, 1989)

• *job satisfaction measures*—motivational and need theories look at the objects and needs that motivate people and their dependence on economic and human relations considerations (Howell & Dipboye, 1982)

There are serious implications for organizations who do not pay close attention to hiring procedures, not only for technical writers, but for all employees. The future of higher education depends upon the ability of institutions to create a community that encourages learning, seeing interrelationships, and interpreting patterns. Those institutions must recruit, hire, and retain individuals who can understand and work within systems. Problem-solving ability is important for technical writers at the BOC—it is a critical need in tomorrow’s “learning organizations” as well (Senge, 1990). More and more people believe that there
will be dramatic changes in the ways organizations are structured in the next century. Large, hierarchical organizations are likely to be ineffective and out of date. Sharing of information and interpretations will be essential activities as well as a focus on values, invention, and continual learning (especially technology).

The future will bring "reframing" of organizations ("re-engineering" is the term chosen by the Iowa Department of Human Services). There will be an increased focus on maintaining mission and integrity through culture, environment, and community striking a balance between the organization's core values and elastic strategies (Bolman & Deal, 1991).

**Interviewing**

Interviews are held with individuals who are interested in a position with the company. An interview is essentially an interactive process between someone applying for a position and a member of the organization that is hiring (Prieto, p. 221). The goal is to gather information about applicants that will provide the decision maker with a way to avoid surprises in job performance. It can also determine whether the personal chemistry between applicants and co-workers will be satisfactory.

One of the most important decisions in the entire management process is the selection of personnel (Cooper & Garmon, 1990). They state that too often, hiring decisions are made too quickly by too few people. The "holistic" approach to hiring involves reviewing every aspect of a candidate's qualifications from various points of view. An evaluation sheet is helpful to use during reading of the applicants' documents. Then a letter should be sent asking for extensive additional information. This is a tool for self-screening—many
applicants do not take the extra time needed to complete the written project. Once an interview is scheduled and held, a follow-up debriefing should occur within 24 hours. This enables all interviewers to contribute recent information and impressions, help select the front-runners, and provide input to other decision-makers. Basing a hiring decision on facts and collective good judgment rather than hopefulness and guesswork assists in hiring competent staff. Uris (1996) cautions interviewers against making false assumptions and against interviewing without a "plan."

A study by the General Accounting Office (1991) examined employment practices in 130 large private U.S. companies. The most important factors used to hire entry-level staff included personal interviews, work experience, and grade-point average.

Research on job analysis, predictor measurement, validity, and utility issues focuses mainly on improving accuracy in predicting job performance (Singer, 1993). Another big concern in the selection process is that of the fairness of the procedures and the fairness of the outcome. Analyses by Hartigan and Wigdor (1989); Hunter and others (1977); Schmidt and others (1984); and Schmitt (1989) indicate that organizations must be concerned about fairness also because the procedures that are fair are also the procedures that yield the highest utility value (i.e., in terms of organizational productivity and effectiveness).

Candidates consider honest and thorough communication from the organization about the job, involvement of competent and impartial interviewers, avoidance of bias, and a thorough search of applicants' qualifications involving applicant input as the most critical determinants of a fair selection practice (Singer, 1993). Singer states that candidates given realistic job information tend to develop realistic expectations about the job and are more
likely to survive on the job. Other studies have concurred that realistic job previews could impact turnover rates and satisfaction with the job (McEvoy & Cascio, 1985; Meglino & DeNisi, 1987; and Premack & Wanous, 1985).

The effects of allowing individuals to “make a case” for themselves by providing information orally and in writing, along with careful cross checking, include work satisfaction and organizational commitment (Singer, 1993).

According to Thornton, (1993) the employee selection practices employed by an organization affect an applicant’s perceptions of how the organization may be a suitable place to work. Recruiter behavior, the application process, interviewing conditions, organizational climate as observed through the interviewer and others with whom the individual comes into contact, self-confidence, and mood—all are factors affecting one’s impressions of the organization and whether or not the employer is acceptable.

Those who psychometrically evaluate selection components assume that the main purpose of recruitment and selection is to predict the individual’s successful job performance. However, there are many facets to an application procedure, not the least of which is the importance of the personal relationship between the interviewee and the interviewer. Impressions of the organization are developed through the interaction with the interviewer. Applicants’ impressions of the interviewer affect the individual’s perceptions of the organization and willingness to pursue a job with the company (Thornton, 1993). An aspect of this interaction is the effect of the organization’s attempt to appear attractive on the applicant’s overall impression of the organization.
Most interviews involve the interviewer and the interviewee. However, the team approach is sometimes used. Usually the latter approach is used to save time and to be able to compare impressions of applicants. According to Arthur (1986), factors to consider when making the final decision rest with the entire team instead of one individual. Besides checking references, decision makers should review their objectives; review concrete requirements, duties, and responsibilities; review the applicants’ qualifications; evaluate applicants’ reactions to specific work issues; take salary requirements into consideration; and consider the applicants’ potential for moving into other positions.

Traditionally, interviewers’ decision-making processes have been studied. Excellent summaries of how interviewers gather, integrate, and evaluate information about applicants are available. Less research has been done on the process the interviewee goes through to gather information, evaluate interviewers, and make decisions about organizations (Thornton, 1993).

Premack and Wanous (1985) and McEvoy and Cascio (1985) concluded that when an applicant gets a realistic look at the organization, it is more likely that the individual will choose correctly whether or not to become employed at the organization. Realistic job previews tend to lower initial expectations and turnover, while increasing self-selection, organizational commitment, job satisfaction, and performance (Thornton, 1993). It is important to relate the individual’s work needs to the ability and desire of the organization to fulfill those needs. Individual work needs include aspects of the position such as autonomy, achievement, stability, intellectual stimulation, and worthwhile work. An effective organization concentrates on spending extra time and effort finding out what an applicant
values most and providing information about those aspects of the job and organization (Thornton, 1993).

Smither and others (1993) studied applicant reactions to selection procedures because the effects of applicant reactions on organizational attractiveness can influence pursuit or acceptance of job offers. Also, applicant reactions may be related to the likelihood of litigation and such reactions may affect validity and utility. One of their conclusions was that applicant reactions to selection procedures were related more to job pursuit, job choice, or post-hire behavior. It may be that what really matters is whether the person gets hired or not; they may be indifferent to the way they were hired (Smith, 1990).

Social rules and attributions were studied by Ramsay, Gallois, and Callan (1997). They concluded that within the interview, interviewers should communicate information about the organization and their expectations for the selection procedures to the applicants. They also stated that the involvement of experienced selection interviewers added to the validity and applicability of the findings.

Interviewer reliability and validity were studied by Zedeck, Tziner, and Middlestadt (1983). They concluded that interviewee qualities such as oral communication, decisiveness, and manner of self-presentation (self-confidence) may be the most predictive of performance. Falcone (1996) states that questions interviewees ask “go a long way toward identifying traits in potential employees—some desirable, others not” (page 15). Their questions should reveal insights into their goals and values as well as knowledge and abilities. Questions such as “How long have you been with the company and what initially attracted you to the firm?” are good ways for an interviewee to find out more about the
interviewer as well as the company. It may be an indication of how astute the individual is and how well s/he has done his/her homework. Koonce (1997) suggests several areas about which an interviewee can ask questions to help determine if the job is a good fit with his or her background, skills, and temperament.

Latham and Finnegan (1993) studied selection interview effectiveness by looking at how practical, reliable, and valid they were. They studied interviewing from the point of view of the interviewer or manager, the applicants or interviewees, and the attorneys who are called upon to defend an interview procedure. They concluded that the results of the interview need to make sense to decision makers and must be fair and appropriate. They discovered that some applicants were accepted because of the way the interview was conducted, the amount of information the interviewer was able to give, the type of questions asked, and interpersonal skills of the interviewer. Applicants looked at the organization and interview situation practically—they wanted to know the extent to which the organization is able to help them to achieve their objectives.

Three interviewing methods were studied: the unstructured, the structured or patterned, and the situational interview. The unstructured interview, usually a free-flowing conversation, is preferred by students because it is more real and more relaxing. The structured interview follows the same pattern because all interviewees are asked the same questions. Its validity is usually higher. The situational interview consists of applicants describing how they would handle certain hypothetical situations. This type is generally most practical and most valid (Latham & Finnegan, 1993).
Rynes, Bretz, and Gerhart (1991) studied recruitment experiences. They reported that the first direct contact applicants have with a potential employer often conveys a misleading impression about the organization. The first individuals the applicant meets add "flesh and blood" to the reality of the organization. Many times recruiting policies fall short of applicant expectations. Enthusiastic, informative, and credible representatives who view applicants as customers and manage the recruiting and interviewing process help ensure that the individual will seriously consider employment with the organization.

Ralston and Brady (1994) reported that applicants are more satisfied with interviews in which they present their qualifications and themselves favorably, where job-relevant issues are addressed, and where the conversation is enjoyable.

Schuler, Farr, and Smith (1993) suggested that the selection process is important from both the organization and individual applicant's point of view. Both are trying to attract each other. Candidates experience selection methods and have opinions about the organization based upon the positive or negative impressions they have developed.

Schuler (1993) developed the concept of social validity which includes independent variables which influence participants' experience of and reactions to selection situations (p. 13-14). His model includes the following:

**Information:** about the job, organizational goals and tasks, culture and style of the organization (e.g., interaction, leadership), and career development possibilities.

**Participation:** development of the selection situation or instruments, decision process, and exerting control over one's own behavior and freedom from coercion.
Transparency: degree to which an applicant can clearly see or deduce the objectives of various aspects of a selection situation.

Feedback: degree to which applicants receive information about their performance in a selection situation.

Applicants are hired because the personnel supervisor (or other decision maker) expects them to have the skills required to team up satisfactorily while working together for the unit's goals and purposes. Teamwork has become an important part of successful organizations and effective performance is understood as a constructive effort within the work group in the present job. Work is viewed as a collaborative goal-seeking activity (Prieto, 1993).

Individual levels of job performance are affected by several conditions surrounding the position such as organizational characteristics, environmental safety, life-span variables, job location, personal habits, commercial efficiency, or feasibility of goods and services (p. 224).

Peter Senge (1990) discussed performance related to systems theory by proposing that organizations learn only through individuals who learn. Commitment to learning increases job performance. Personal mastery goes beyond competence and skills through spiritual growth, to living life from a creative viewpoint. Dr. Senge emphasizes the importance of human values and that vision, purpose, alignment, and systems thinking are essential to reaching potential.

The effective team is one in which each member is, according to Bass (1982) highly interdependent, coordinated, and cooperative in their efforts. One of the most significant
contributions to successful job performance is having the right persons teamed at the right time (Prieto, 1993). Applied psychologists are aware that team effectiveness arises out of matching role assignments with individual differences.

New hires are selected not only on personal merits but on the extent to which they are likely to be easily assimilated into the organization, avoiding underproduction (Waterman, 1982). Together they begin a training program aimed at developing and enhancing both group solidarity and consciousness. (Prieto, 1993).

Outstanding outcomes arise from team-building attitudes and from the quality of group problem-solving activities. So group process, social intelligence, and interpersonal skills are the criteria that are often demanded and rewarded in the context of team effectiveness. Such behavioral abilities forecast group-level outcomes of work groups with interdependent tasks. Interpersonal skills and performance factors affect team performance (Prieto, 1993):

- Person-interpretation skills, self-presentation, listening, communicating, and persuasion;
- Providing feedback, running a group meeting, problem analysis, stress tolerance, decisiveness, decision making;
- Flexibility and adaptability to deal with people’s needs, failures of achievements, joint problem solving, understanding of goals, roles, norms, and conformity measures.

According to Prieto (1993), newcomers display team proficiency when showing mastery of five functions (p. 231):
1. Knowing how to gain group acceptance
2. Increasing group solidarity
3. Being aware of group consciousness
4. Sharing the group identification
5. Managing others' impressions of him/her.

**Applicant Scoring**

Employers could hire all applicants for 6 months and then select the best workers for retention, but this is a very costly way to do business. Employment tests offer the employer a shortcut (Wigdor & Sackett, 1993). Test scores are an imperfect indicator of what we are really interested in, and this is job performance (p. 196).

Organizations must make an effort to quantitatively review and judge a candidate's resume including developing qualifications/criteria, developing a rating scale, and determining values for the criteria (Blackwell & Carlson, 1995). Another important aspect of the selection process is checking references, which can verify information you already have about an applicant. The interview has widespread usage. Interviewers should have a plan, follow a logical sequence, take notes, write a summary, and learn from each experience. Evaluate candidates on twelve key areas: adaptability, competence, experience, manageability, interpersonal skills, attitude, initiative, maturity, stability, emotional control, integrity, and values. Scoring the interview should include factors such as resume, information gathered from references, and interview questions and answers. It is essential that scoring schemes should be fair, eliminate bias, obtain an average, and contain all factors.
Experienced personnel managers caution against putting too much emphasis on the interview since it is a brief exposure to an applicant who may not have developed good interview skills but who may be highly qualified (Patterson et al., 1994). However, the interview scores can be used along with other ratings in an overall selection process.

According to Nevo (1989), there are three main reasons to gather information about and reactions to testing:

1. Moral—we should know the effects of our practices
2. Useful—are they giving us the results we need
3. Theoretical—it is interesting to know their validity.

There are many explanations for testing results including physical conditions, the behavior of the examiner, adequacy of time, face validity, method of preparation, and prior knowledge of testing procedures to be used (Thornton, 1993). Testing procedures may have an influence on applicant perceptions of the organization. It is certainly valid to wonder if they are accurate in their ability to reveal how well applicants can do the job. In a survey of applicant reactions, Adams and Thornton (1987), discovered that interviewees thought the interview was most helpful. It is also interesting to note that the general reason test, generally considered the most valid predictor, was the least preferred among the applicants. What industrial psychologists would consider the least valid, the interview, was most favored by applicants (p. 63).

Rynes and Gerhart (1990) studied organizational and individual outcomes in relation to person-environment fit (Holland, 1973) and their effects on individual attitudes, intentions, and behaviors. The concept of fit has increasingly been used in organizations in
relation to personnel selection. Individuals are assessed in terms of their fit with the organization's culture, norms, and values. The researchers investigated three questions concerning interviewer assessment of fit: 1) how do assessments of fit differ from assessments of general employability? 2) to what extent do assessments of fit reflect something other than idiosyncratic recruiter preferences? And 3) what kinds of trait evaluations are associated with assessments of fit, holding “objective” qualifications and assessments of employability constant? They found that assessments of interpersonal skills, future goal orientation, and personal appearance all influenced fit assessments. They also found that recruiters and hiring managers must receive consistent, systematic information about organizational priorities and preferences in order to make “better” hiring decisions.

Job analysis is the precursor to effective interview assessment. There are legal reasons for job analysis to prove that a selection process was valid. Jobs need to be analyzed so management can effectively manage the work behaviors, tasks, products, services, and processes required (Clifford, 1994). Mr. Clifford listed a number of fundamental principles concerning jobs and the process of analyzing them:

1. All jobs can be analyzed and recorded.
2. Job analysis can enhance communication.
3. The process of analyzing jobs can easily accommodate change.
4. The process can be clear enough so employees and employers can understand and contribute to the process.
5. The process can be designed so that all major personnel decisions can be based on the resulting data.
6. Skill, knowledge, and ability can be defined in operational terms.

7. Job analysis based on observable behaviors and work products contributes to efficient human resources management.

8. Nearly everything that needs to be written to explain the work of a job is already written.

Job analysis identifies critical tasks and those requiring high level skills. Selection activities and assessments can be built around those skill areas. Training programs can be built to develop those skills. A job analysis process can improve communication, should accommodate change, should contribute to improved human resource management and should be cost effective (Clifford, 1994).

A job sample "test" is a common tool to assess the presence of necessary job skills and to determine suitability for a particular job (Downs, 1989). It is a method available to selectors which increases the chance of making reasonable selection decisions.

Peter Herriot (1989) stated that the interview is the most frequently used and most popular tool for personnel selection because it is a face-to-face encounter. Many decision-makers believe that that is the only way they can discover if an applicant will fit into the organization.

Since organizations are changing and individuals are needed who have good technical skills plus teamwork abilities, are able to use computers, can manage heavy workloads, and can master many tasks, they are looking for "super employees" with multiple skills who can work in a demanding environment (Graves & Karren, 1996). Although the interview is the most frequent selection device used, it doesn't always yield good decisions.
Since different interviewers make decisions differently, there are differences in how well employee performance can be predicted. If different applicants are treated differently, they may feel discriminated against. Ultimately, organizational performance is affected. Better interview practices will help improve organizational effectiveness.

"What a person will do in the future is best predicted by what he or she has done in the past (Drakely, 1989)." Making use of information about past events is a basic premise of "biodata." Hunter and Hunter (1984) used "meta-analysis," a set of techniques for accumulating independent validity coefficients that statistically account for sampling error and reported that the three best predictors of entry level job performance (as assessed by supervisors' ratings) were ability tests, job tryouts, and biodata. Biodata were used to predict turnover more frequently than any other predictor and were the second best predictors of performance ratings (Drakely, 1989).

Demographic characteristics such as sex have been studied to determine if sex similarity affected interview outcomes (Graves & Powell, 1996). They found that sex similarity tended to have both direct and indirect effects on interview outcomes. Female interviewers, more often than male, however, reported more positive interview experiences with same-sex candidates. This may be due to males' heightened sensitivity to the problem of sex discrimination.

Checking references can yield information that may not have surfaced through other phases of the selection procedure. Checking at least three references allows the company to compare comments for consistency (Barada, 1994). If the questions are job-performance-
related and cover a time period within the last seven years, the information gained is most relevant.

**Employee Satisfaction and Persistence**

Predicting employee turnover and job satisfaction has been the subject of many research studies. Individual studies have linked turnover and intent to leave with job satisfaction and organizational commitment. Tett and Meyer's 1993 study showed that satisfaction and commitment each contribute independently to the prediction of intention to quit. Turnover intention is the strongest predictor of turnover, followed by organizational commitment, then job satisfaction.

The employee selection process is really a matching process between the individual and the organization. The aim is match the person's abilities and capabilities with the requirements of the position. If the match is a good one, good job performance is the consequence. Another matching process is to match the individual's needs and job wants with the organizational climate or culture. If the match is a good one, the consequence is employee retention-related attitudes such as job satisfaction, organizational commitment, and retention (Wanous, 1993).

The role of individual "work attitudes" such as job satisfaction and organizational commitment along with "withdrawal cognitions" (that is, thoughts of leaving or intentions to quit) have been studied more than has the job search itself (Blau, 1993). Hom and Griffeth (1991) found that withdrawal cognitions and job search had direct effects on turnover. Mobley (1977) predicted that intention to quit was the most direct cause of turnover.
Zeffane (1994) studied job satisfaction in the Australian telecommunications industry. He assessed six independent variables: demographic characteristics, structural characteristics, computer technology skill, task characteristics, the degree of certainty about future outcomes and directions of the organization, and the perceived level of work-group performance. He discovered that the workers were more satisfied when the task variety was higher, they were able to participate in decisions, they were more certain about future outcomes and directions of the organization, and they felt comfortable in the work-group.

A study of women entering and leaving state and local government jobs indicated growth of female representation among officials and administrators, but little improvement for the workforce as a whole (Dometrius & Sigelman, 1997). The researchers discovered that 39.7% of the people who left their jobs in 1980 were women. By 1990, 48.4% were women. This alarming figure indicates a high turnover rate which merits further research to determine the reasons for this effect.

Newcomer orientations have, as broad objectives, to help newcomers become better "matched" to the organization in both meanings of the term. One of the primary objectives is to help newcomers cope with the stress of trying to enter a new organization. Coping skills as well as general support are desirable activities during an orientation. These result in less absenteeism, greater productivity, and less training. Therefore, both performance and retention-related attitudes-behavior should be improved by an effective orientation program (Wanous, 1993).

Shuler's (1993) concept of social validity refers to a quality of a selection process that makes it acceptable to participants. The social impact of a selection process on an
applicant's well-being, decision making, and behavior make it worth considering. There are four components:

1. Information about tasks, jobs, organizational characteristics, and chances for career advancement
2. Participation by the applicant in the development and execution of the assessment
3. Transparency of the situation such that participants understand the selection process and can see its relevance to the organization's requirements
4. Honest and considerate feedback.

It is important to get an idea of applicant reactions to selection procedures (Rynes, 1993). These reactions may translate into withdrawals from the application process, negative public relations to friends and other applicants, turn-downs, dissatisfaction with the company, or complaints. Poor first interviews or recruiting delays may be early warning signals to individuals. The selection process used can impact employee tenure, employee flow in and out of the company, performance levels, and other payoffs such as sales and efficiency (Cascio, 1993).

Whole-person measurement (Offerman & Gowing, 1993) is emphasized for personnel selection today and in the future. The U.S. Department of Labor (1990) developed a list of core proficiencies when it established its Secretary’s Commission on Achieving Necessary Skills (SCANS). Those skills include reading, writing, and mathematics, problem-solving, knowing how to learn, individual responsibility, self-management, and sociability. Another change in focus is the increasing reliance of workers
to work within teams. Selection procedures should include an increased emphasis on assessing past activities that may predict team effectiveness.

Job satisfaction is normally measured by some sort of self-report questionnaire. There are many facets of satisfaction such as satisfaction with pay or with supervision, along with whether or not to consider the situation currently or how it compares with how it should be (Howell & Dipboye, 1982). Research has shown that self-report measures of satisfaction are related to absenteeism and turnover. Human relations theorists argue that organizations should be concerned about job satisfaction because satisfaction directly controls performance (the happy worker is a productive worker). Others believe that satisfaction is a result of good performance (the organization should provide opportunities to perform well and provide feedback). The authors conclude that satisfaction and performance are related in a very complex fashion.

It is not always easy to determine a supervisor’s effect on satisfaction or performance. According to Howell and Dipboye (1982) there are three main ideas about leadership: that leaders are born, not made (trait theory); that there are effective and ineffective ways to manage that almost anyone can learn (behavioral-style theory); or that anyone can win with a winner (situational theory).

House and Mitchell (1971) have presented a path-goal theory to predict the effect of leader behavior on subordinate satisfaction and motivation. They state that an essential function of a leader is to enhance the motivation and job satisfaction of subordinates by increasing subordinate expectancies that the exertion of effort will lead to effective performance and valued outcomes, and by increasing the appropriateness of the outcomes.
Predictions were developed from leader behavior: leader directiveness, leader supportiveness, leader participativeness, and achievement orientation.

**Job Performance**

Performance appraisals are integral to the successful operation of most organizations (Dickinson, 1993). They should be thoughtful and reasonable summaries of employees contributions to the organization. Employees have strong attitudes about performance appraisals, especially if their pay increases, job security, or self-esteem may be threatened.

It is no easy job to measure performance accurately. There are several methods to evaluate and gauge how well a person is doing a job. A job description spelling out work roles and duties is a prerequisite for evaluating performance. Determining the rate of pay for a position is also a critical procedure, one which reflects how much the job is worth to the organization and how much the person is worth in the job (Howell & Dipboye, 1982). A dependable measure of performance should include an index of quantity of output, quality of output, learning ability, work habits and attitudes, interpersonal skills, and judgment or problem-solving ability. It also should include important unique features of particular positions and people. Objective measures (such as quantity of output) should be combined with subjective measures (attitudes) to evaluate job performance.

Lawler (1967) found that attitudes about fairness and acceptability are major factors in the validity of the appraisals (p. 142). It can be an important part of an ongoing program, based on knowledge of the employee’s performance. It allows employees to express feelings, and leads to action plans to eliminate weaknesses (Dickinson, 1993).
It is also important to understand that the perceived level of the performance rating relative to expectations and the opportunity for employees to participate in a performance appraisal discussion of plans and objectives provides relevancy to the process (Dipboye & dePontbriand, 1981).

Characteristics of the person rating the employee (95% of the time, the immediate supervisor) has an effect on employee satisfaction with the performance appraisal process, according to an estimate by Lazer and Wilkstrom (1977). Some organizations include peers in the rating system. According to McEvoy and Buller (1987), this works best when the identity of the peer rater is confidential.

Studies of the appraisal process have found that most often appraisees' performance is evaluated on the basis of specific competencies such as behaviors, skills, abilities, personality characteristics, results, goals reached, and targets attained (Dulewicz & Fletcher, 1989).

Predictors of Success

Success, for personnel selection, means that positions in the organization are being filled. More importantly, it means that those people that are being hired are contributing to the success of the organization (Dyer & Holder, 1988).

Studies of the predictive ability of personnel selection techniques and activities include information on how decisions about hiring employees should be based on predicting future performance. DeWolf (1993) argues that the prediction paradigm concentrates on prediction only, but is a useful tool despite other aspects of personnel selection such as interpersonal skills, teamwork experience, and knowledge of computer applications not
being considered. The decision-making process during employee selection also involves deciding if the vacancy should be filled, where to recruit for applicants, and what type of interaction between staff and applicants there should be.

The prediction paradigm also assumes that outcomes are determined by traits that can be measured (DeWolff, 1993). Other variables are important, however, such as motivation, and training. Motivation is thought to have an important impact on performance and persistence.

Terpstra and Rozell (1993) reported a study of the relationship of selected staffing practices to levels of performance. They found a significant positive relationship between organizations' use of the five staffing practices and both annual profit and profit growth. The five practices included: the use of follow up studies of recruiting sources, the use of validation studies for the predictors used in selection, the use of structured, standardized interviews for selection, the use of cognitive aptitude and ability tests for selection, and the use of biographical information blanks (BIBs) and weighted application blanks (WABs) for selection. BIBs and (WABs) are used by approximately 11% of the organizations sampled by the Bureau of National Affairs (1983). Cascio (1976) also stated that "compelling evidence exists that when appropriate procedures are followed, the accuracy of biographical data as a predictor of future behavior is superior to any known alternatives" (p. 576).

Personnel specialists are often required to develop selection devices and systems. Understanding what a device measures helps them explain why it works as part of the selection practice (Klimoski, 1993). Predictor constructs mean some aspects of a person which, when measured and studied, have become predictors of future performance. It is also
important to measure aspects that transcend situations and individuals in order for it to meaningful. Usually it is a combination of traits that leads to an individual’s performance, so it is important to not lend too great prominence to only one trait.

According to Montgomery (1996), most people fail in a job because of inadequate interpersonal skills, an inability to communicate, or because they didn’t fit in with the organizational culture. It wasn’t because they lacked education or job experience. He goes on to say that while a candidate’s work credentials are important, personal credentials may be even more predictive of success. Factors such as likability, sense of humor, and ability as a team player were five times as likely to predict that a person would or would not be rehired as other objective factors.

Sources from which individuals are recruited into an organization can affect their persistence. Informal sources provide more realistic information which results in more realistic expectations and less turnover. Formal sources may cause applicants to believe they have more mobility (Caldwell & Spivey, 1983). They concluded that careful use of sources can lead to increased employee success.

Seiss and Jackson (1970) think that a favorable impression in an interview may be due to the person’s match with three models of suitability, 1) the “good person,” 2) the “good employee,” and 3) the “good candidate.” However, hirability for the position and employability with the company are two separate issues which lead to employment when both are satisfied. A person may have the skills necessary for the tasks to be completed, but may not have the interpersonal skills or work ethic necessary to be successful working with
others in the company. The theory and practice of personnel selection start with wanting to predict and understand performance of individuals (Klimoski, 1993).

Once major tasks and duties are clarified for a particular job, traits relevant to performance must be identified. Common predictor “constructs” include measures of personality such as authoritarianism, conformity, need for achievement, socialization/moral judgment, social sensitivity, and field independence (Gough, 1976). Biographical information is also used in personnel selection, usually because they indicate a “sample” of the behavior of the individual. The interview measures worker requirements such as motivation, stability, and communication skills. Assessment centers attempt to measure cognitive and personality traits.

Issues affecting predictability include maintaining the integrity of the trait being measured (Klimoski, 1993). Adequate sampling, consistency in administering measures, and characteristics of those being measured may compromise the validity of the measurement.

A predictive validation study was conducted by Cesare and others (1991) looking at the relationship between selection instruments and job performance criteria. The written test used was a valid predictor of job performance, but the application and interview did not predict job performance. It was interesting to note that they found the written test to have an inverse relationship with tenure and a significant relationship with turnover (in other words, the better the individual scored on the test, the shorter period of time he or she remained in employment. The authors stressed in their recommendations that employee performance has much to do with other factors in the organization also, not just initial selection procedures.
Interviews, though highly subjective, are the most widely used method of personnel selection. Dipboye and Gaugler (1993) stress that higher prediction is obtained with interviews that are more structured. Standardized questioning, job analysis, information about job requirements, information about the applicant, note-taking, delayed evaluation, well-defined rating scales, separate ratings of various dimensions, multiple interviewers, and trained interviewers contribute to the higher level of success for structured interviews.

Cesare (1996) suggests that the interview be properly designed by basing it on a job analysis. Then align the rating instrument to the job- and skill-related questions asked in the interview. It is important that interviewers receive training on the use of the interviewing tool in order to maintain its effectiveness and increase its validity and predictive value.

Suggested procedures, based on studies of the effectiveness of the interview as part of the selection process, are detailed by Lowry (1994). Since definitive standards or guidelines for interviews are needed, he proposes that all applicants be asked the same questions and that all applicants be provided job information and requirements. He also stresses extensive training of the interviewers and raters. Questions should be based on a job analysis so the appropriate skills, knowledge, and abilities are assessed. If one of the job requirements is to complete reports, it is appropriate to ask the applicant to complete a report based on a hypothetical situation. The author also states that the process must be consistent for each applicant. The use of multiple interviewers also increases reliability and reduces the chance of biases. Scoring should include comparing the answers to examples of good and bad answers related to the skills and job requirements.
Dipboye (1989) describes three phases of the interview process. The pre-interview phase includes paper credentials. The interview phase consists of the face-to-face conversation. The post-interview phase is when the interviewer forms impressions and renders decisions. It is important to know the extent to which the second phase, the interview, can predict applicant success. It was found that post-interview impressions tended to conform with pre-interview impressions. It was also found that the pre-interview phase had a huge effect on the post-interview phase. Then the question was, why interview at all? It seemed that the interviewer had expectations of the applicant or high scores on the pre-interview phase caused the applicant to appear highly qualified in the interview. Interviewers who have favorable attitudes toward an applicant may show signs of approval and fewer signs of disapproval in their verbal and nonverbal behavior (Dipboye, 1982; Dipboye & Macan, 1988).

Ralston and Brady (1994), report that a self-fulfilling phenomenon may also influence applicants. They suggest further research into the relationship between interview communication satisfaction and recruitment tactics. Phillips and Dipboye (1989) explored the relationship between interviewers’ pre-interview evaluations and later events in the selection process. Pre-interview impressions were predictive of interview outcomes. Structuring pre-interview assessments of biographical data improves the validity of the decisions made at that stage. It may help to train interviewers to form “hypotheses” about the candidates and test them through the interview process.

Cognitive ability is reflected in interview evaluations because the interviewee’s intelligence is often a focus, along with answers to ability-loaded questions and background
characteristics (Huffcutt, Roth & McDaniel, 1996). Their findings indicate that interviews which correlate higher with ability also tend to be better predictors of job performance.

Sudzina (1991) stressed the importance of the information provided by applicants in response to a solicitation for applications. She mentions that candidates who had the advantage were those who had responded specifically to the advertisement and presented professional-looking documents. Committee members assumed that lack of attention to detail and professional presentation during the application process would predict the same behavior in the work situation.

A common recommendation to improve interview predictability is to standardize the interview process regarding evaluation criteria, sequencing of questions, and interview length (Washburn & Hakel, 1973). Having a guide or framework to structure the interview helps improve the validity of the results.

Cronshaw and Wiesner (1989) describe the employment interview as an "interpersonal interaction of limited duration between one or more interviewers and a job applicant for the purpose of identifying interviewee knowledge, skills, abilities, and behaviors that may be predictive of important job criteria such as job performance, training success, promotion, and tenure." They concluded higher predictive ability when a structured interview was used. "Structure" refers to any effort to improve the reliability and validity of the interview. They also stressed the need to be specific about the constructs being assessed in the interview (e.g., past job-related behavior, behavioral intentions).

A full understanding of job performance depends on having a clear idea of what the organization goals are and how an individual employee can contribute to reaching those
goals. Campbell, McCloy, Oppler, and Sager (1993) define performance as synonymous with behavior. Performance is what the organization hires one to do, and do well (p. 40). Jobs are complex activities and for any job there are a number of major components. The authors explain performance as consisting of eight factors (any one job may not have all eight):

1. Job-specific task proficiency
2. Non-job-specific task proficiency
3. Written and oral communication task proficiency
4. Demonstrating effort
5. Maintaining personal discipline
6. Facilitating peer and team performance
7. Supervision/leadership
8. Management/administration

Organizations can improve performance of newly hired individuals by having effective training, working conditions, and communication.

According to Sackett and Arvey (1993), job analysis is essential for determining the important components of a job and how to measure them. It is also important to develop predictors such as structured interviews, job knowledge tests, and work sample tests.

Trost and Kirchenkamp (1993) presented a study which involved answering the question, “What are the relations between aptitude and achievement measures as well as self-reports of work habits and extracurricular activities obtained at the end of secondary school and during higher education on the one hand, and the choice of occupation together
with some criteria of job success and satisfaction on the other hand?” (p. 303). Predictor variables included the score on a general scholastic aptitude test, study habits at school, extracurricular activities, career plans and aspirations, average marks in school, self-ratings of study habits, progress, and satisfaction at the university, and results of final exams. Although these particular variables will not be studied in the current study, the criterion variable, overall job satisfaction, will be. A question asked in the Trost/Kirchenkamp study was, “If you had the chance to start anew, would you choose your present occupation again?” (p. 309). This is a valid question for every employee to ponder.

In summary, the review of literature supports the position that it is important to study current practices to inform management of successes and failures in hiring. Since the purpose of this study was to determine the relationship between pre-employment variables and satisfaction, persistence, and performance, research cited reinforces the magnitude of the problem—administration must evaluate selection procedures to ensure they sustain and nourish the organization’s goals.

- The literature on interviewing restates the importance of asking the right questions to uncover traits and abilities that have been present in past and current employees who have stayed with the organization, who have been satisfied with their positions, and who have been high performers.

- The literature on applicant scoring stresses objective analysis of employment data, checking references, using fair and unbiased techniques, and using a variety of practices within the overall hiring process.
• Employment satisfaction and persistence literature studied stressed making a good match between an individual's abilities and capabilities. A successful match results in increased satisfaction and commitment.

• Job performance literature stressed the importance of performance appraisals, job analysis, attitudes, and quantity of output.

• Predictors of success sources studied emphasized the importance of validation studies for predictors used in selection and the use of structured, standardized interviews. It is important to understand the various factors being weighed in hiring decisions and how strong the relationships are with outcomes such as performance, persistence, and satisfaction.
CHAPTER III. METHODOLOGY

Research Design

The research design for this study incorporates quantitative as well as qualitative methods. Objective evaluations of quantitative data were made to test knowledge claims or hypotheses about relationships between several variables. Descriptive statistical techniques summarize and analyze the population, group the information, and provide mean scores and frequencies for variables. These techniques describe the situation as it is. This study also includes correlational methods to discover relationships between variables and investigate the null hypotheses.

The research design also includes qualitative methods which aim to gather information about individuals in a more “holistic” manner. The information gathered is less generalizable but is essential to the understanding of the interactions, climate, and culture of the organization in which the individuals work every day. This type of research tries to study elements in their “natural” setting in order to better understand the reality of the environment, daily interactions, and worklife issues. Qualitative methods of gathering data such as observations and interviews are used because they are more suited to discovery and uncovering social and organizational information. The information gathered through qualitative methods was also used to develop further ideas and hypotheses about the topics of selection and retention of employees.

Permission to conduct this study was granted by the Bureau of Collections/Iowa Department of Human Services and Iowa State University as well as the ISU Human Subjects Review Committee. The Information for Review of Research Involving Human
Subjects approval form was submitted and approved (See Appendix J). The researcher guaranteed the confidentiality of participants' personal files and other information. Each participant signed a consent form granting the researcher access to his/her file (See Appendix M). No individuals have been identified either by name, social security number, or other personal data.

**Population Studied**

The first group of subjects of this study were 17 technical writers who were hired between January 1, 1994, and January 1, 1998, by Iowa State University under the Child Research and Training Project. These 17 individuals were divided into four naturally-occurring groups:

1. Those who were still technical writers as of April 30, 1998
2. Those who began as technical writers who subsequently were hired into other state positions working for the Bureau of Collections
3. Those who began as technical writers who subsequently left BOC but accepted positions in other areas of state government or Iowa State University
4. Those who began as technical writers who subsequently left ISU and state government entirely.

A comparison group was also studied. This group consists of other employees at the Bureau of Collections. These 18 individuals include 3 Management Analyst 3’s, 9 Program Planner 3’s, and 6 Program Planner 2’s. Since these individuals are not ISU employees, less information was available to the researcher. However, interviewing practices, scoring techniques, and other hiring procedures were compared to those of the technical writers.
Summary scores were compared as were job performance scores for the purpose of analyzing similar relationships between persistence, satisfaction, and performance factors for each group.

Data Collection Methods

Several data collection activities were used to gather data on the individuals studied. The Bureau of Collections and Iowa State University cooperated to provide information requested by the researcher. The following procedures were used to gather data for this study:

1. Personnel files were examined to secure information about the individuals related to the research variables.

2. A performance rating for each individual was provided to the researcher by the supervisor which rated the individuals on various critical skill areas.

3. A questionnaire was distributed to each technical writer who had been hired under this project seeking information about various aspects of the application, interview, and hiring practice that each experienced. A questionnaire was also distributed to other Bureau employees, seeking similar information to be used as a comparison.

4. An interview was held with four individuals to gather subjective information about their interactions with others on their teams, their supervisor, and the bureau chief; their initial impressions of the bureau, the interviewer, and the position; their work values; the organizational climate; and the impressions of the performance evaluation process.
Assumptions and Limitations

Because this is the first time a study of this nature has been done during this cooperative agreement, a number of assumptions and limitations for data collection and analysis were identified:

**Assumptions**

- Basically the same application and interview process was conducted with all 17 technical writers (e.g., scoring techniques were as similar as humanly possible, applicants were asked the same questions and scored using the same benchmarks).
- Scoring of application and interview materials was done without bias.
- Working conditions for the individuals were essentially the same.
- Each individual received essentially the same basic, intermediate, and advanced training required to perform the job successfully.

**Limitations**

- Individuals may have left their positions for many reasons other than dissatisfaction or substandard performance.
- The number (N) of individuals hired and subsequently studied is low. Therefore several methods of gathering data on the individuals were used and in-depth analyses of both quantitative and qualitative data were completed.
- Complete data may not have been available on each of the individuals.
- Hiring procedures for the other Bureau employees are varied. Although similar skills and knowledge are needed to perform satisfactorily in those positions as in
the technical writer positions, selection practices and scoring methods vary sufficiently to make comparison difficult.

Quantitative Data Analysis

Data files were developed containing scores on each variable for each of the individuals in the study. Seventeen individuals in the study were technical writers hired by ISU for contract positions with the Bureau of Collections. The other eighteen individuals were hired through a variety of procedures. Variables studied were individual scores compiled during the selection process, plus background information about the individuals. Individuals scores were entered by a unique number (not the social security number or any other recognizable identifier). The following research variables were used:

- Educational level
- College major
- Years of human service-related work experience
- Years of child support work experience
- Years of related work experience
- Technical writing experience
- Application materials overall score
- Score on application letter
- Score on resume
- Overall score on required summary
- Writing exercise score
• Reference average score
• Interview score
• Self-rating of job satisfaction
• Length of tenure as technical writer
• Length of tenure as technical writer or other BOC employee
• Length of tenure as technical writer, BOC employee, or other state or ISU employee

Several data files were developed. One file contained information on college major, persistence, satisfaction, and performance. A second file contained data on the comprehensive variables plus persistence, satisfaction, and performance. A third file contained scores on all dependent and independent variables. The performance ratings provided by the policy supervisor were entered into a data file and correlated with each of the variables.

**Descriptive statistics**

Descriptive statistical techniques were used to describe the data collected about each of the variables studied. Tables included in Chapter IV show scores on variables studied. The means of scores on the variables are shown in tables for each group (still technical writers as of 4/30/1998, and those who work for BOC in other capacities).

**Inferential statistics**

The researcher chose to use correlational techniques to investigate the relationships between the variables in this research study. Since each individual studied has his or her own unique combination of skills, abilities, and experience, an examination of the degree of
the relationship between each of the predictor variables and each of the criterion variables of persistence, satisfaction, and performance yielded data which might be used to predict those dependent variables. Tables in Chapter IV illustrate the results of these statistical tests.

**Statistical tests of the null hypotheses**

The null hypotheses stated in Chapter I were tested using inferential statistical tests. All of the independent variables are continuous variables as are the three dependent variables; therefore, correlation coefficients were used to analyze the results. Analysis of variance was used to measure the differences between scores on selection variables and on persistence, satisfaction, and performance scores for the two groups of individuals studied.

**Statistical power**

The level of significance for all statistical tests was set at .10 in order to increase the power of the tests. Since this study was the first of its kind for the Bureau of Collections and because of its exploratory nature, a higher level was merited. Borg and Gall, 1989, stated that “...some researchers feel it is permissible to set alpha at .10 in exploratory studies to increase statistical power. An alpha of .10 increases the risk of a Type I error, but it also might spotlight a potentially important difference or relationship that would have been overlooked had a lower alpha value been set” (p” 358). The number of individuals in this study was small. Although the size of the group does not affect the size of the correlation coefficient, it does affect the accuracy of the relationship. To minimize the probability of making a Type I error (rejecting the null hypothesis when it is true) or a Type II error (not rejecting a false null hypothesis), and maximize the power of a test, a reasonable alpha level
must be set taking into account sample size. Since the consequences of making either type of error in this research situation are equal and the sample size was small, a larger alpha level was chosen.

**Qualitative Data Analysis**

In addition to statistically analyzing the data gathered from personnel files, the researcher developed and administered a questionnaire designed to gather a self-reported job satisfaction score plus other qualitative information. This information provided the researcher with insight into reactions to personnel selection techniques used to hire technical writers as well as other Bureau staff.

**Data collection methods**

A questionnaire was distributed to 17 of the technical writers who agreed to participate and who were hired between January 1, 1994, and January 1, 1998 (See Appendix H). Questions involved several topics including:

- Initial interest in the position
- Effects of the requirement to do a summary prior to the interview
- Impressions of the applicability of the summary elements
- Job description
- Interview questions
- Writing exercise
- Reasons for leaving the position
- Reasons for leaving the department and/or ISU
• Effectiveness of the selection process
• Satisfaction with the position of technical writer
• The importance of the various scoring elements on persistence, satisfaction, and performance.

A separate questionnaire was distributed to the other Bureau staff members (see Appendix K). Several of the same variables were studied, providing self-reported information.

Interviews were held with four of the individual technical writers and Bureau staff. This data-gathering technique was used to further explore personal and relational aspects of the position and of the organization (see Appendices I and L for copies of the interview questions). Topics included:

• Performance evaluations
• Training
• Initial reactions to the Bureau of Collections and the interviewers
• Realism of the job interview
• Teamwork attitudes and impressions of its effectiveness at the Bureau of Collections
• Work needs and values of the individual
• “Fit” of work needs and values with the organization
• Employee interactions
• Relationship with supervisor, team leader, and management
• Organizational climate
• Interpersonal relationships

In order to expose all respondents to the same experience and get comparable data from each, the interviewer took care to present the same opening statement, interview questions, and closing remarks. The questions were developed carefully to make sure the individuals understood exactly what the researcher was asking. Interviews were taped to facilitate accurate reporting of data gathered. Responses were coded and tabulated and analysis of the results followed. The researcher developed conclusions and recognized and recorded limitations.

Data analysis

Chapter IV contains data gathered from the questionnaires and from the interviews. The results were analyzed to develop conclusions and findings from the information gathered. Since qualitative methods involve less structure and many researchers are concerned about external validity (generalizability) and internal validity (distortion by extraneous variables) of the methods, the researcher was careful to include safeguards. Peer debriefings were held at various stages of the data collection phase. The threats to validity for qualitative research methods cause researchers to be cautious when interpreting results. The most important information to be gathered is learning what’s happening in practicality rather than in theory, what the events reported have meant to the individuals interviewed, and how what is happening in this situation relates to other similar situations.

In addition, after gathering both quantitative and qualitative data, methods triangulation was used to assess the validity of the technical writer interview. Several of the
questions asked in the interview echoed similar questions on the questionnaire and measured essentially the same variables as the quantitative analysis.
CHAPTER IV. FINDINGS

This chapter contains a description of the individual types of employees included in the population and of the variables studied. An investigation of the null hypotheses is also reported along with an interpretation of the results for each statistical finding. After the quantitative findings are presented, qualitative findings are also discussed.

Description of Population

During the time period studied, 23 technical writers were hired by Iowa State University through a contract with the Bureau of Collections, the child support recovery division of the Iowa Department of Human Services. The first technical writers were hired in January 1994. The most recent hirees started in December 1997. All 23 technical writers were invited to participate in this study which attempted to determine which factors in the hiring process affect the individuals’ satisfaction with the technical writer position. Those factors were also studied to determine if they affect persistence (longevity) and performance. The strength of the relationships between those factors were also studied to determine if they might predict persistence, satisfaction, and performance. Seventeen technical writers agreed to participate.

To provide a comparison group, the researcher also invited 20 state employees working for the Bureau of Collections as program planners and management analysts to participate. Eighteen agreed. The same factors were studied to determine if they also predict persistence, satisfaction, and performance for these individuals.
Descriptive and comparative information is included about variables studied for each group (technical writers and state employees). Descriptive and comparative information is also provided about hiring practices for technical writers and for state employees.

Technical writers

Technical writers hired by Iowa State University through the Child Welfare Project have varied backgrounds and work histories. Table 1 summarizes background information.

**Table 1.** Background information gathered about technical writers hired from January 1994 to December 1997

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Range</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational level (in years)</td>
<td>17</td>
<td>16-20</td>
<td>17</td>
</tr>
<tr>
<td>Experience in child support (in years)</td>
<td>7.25</td>
<td>5-8</td>
<td>4</td>
</tr>
<tr>
<td>Experience in other human services (in years)</td>
<td>7</td>
<td>3-10</td>
<td>3</td>
</tr>
<tr>
<td>Other related experience (in years)</td>
<td>8.4</td>
<td>1-22</td>
<td>10</td>
</tr>
</tbody>
</table>

The Bureau of Collections has developed a standard hiring procedure for technical writers. BOC staff interviewers gather information about education and experience before actually interviewing the individuals. In Table 2, factors that are scored during the process are listed. Mean scores are listed for each of the factors for the 17 technical writers.

**Table 2.** Factors scored during technical writer hiring procedure with mean scores

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational level (in years)</td>
<td>17.00</td>
<td>17</td>
</tr>
<tr>
<td>Experience in child support (rating from 1 to 5)</td>
<td>4.75</td>
<td>4</td>
</tr>
<tr>
<td>Experience in other human services (rating from 1 to 5)</td>
<td>4.33</td>
<td>3</td>
</tr>
<tr>
<td>Other related experience (rating from 1 to 5)</td>
<td>2.65</td>
<td>10</td>
</tr>
<tr>
<td>Score on the background summary (rating from 1 to 5)</td>
<td>3.85</td>
<td>10</td>
</tr>
<tr>
<td>Application (resume, application letter) total (maximum 30)</td>
<td>19.97</td>
<td>16</td>
</tr>
<tr>
<td>Interview score (rating 1 to 5)</td>
<td>4.31</td>
<td>16</td>
</tr>
<tr>
<td>Writing exercise (rating 1 to 5)</td>
<td>3.78</td>
<td>17</td>
</tr>
<tr>
<td>Reference score (rating 1 to 5)</td>
<td>4.54</td>
<td>17</td>
</tr>
</tbody>
</table>
State bureau employees

State employees hired by the Bureau of Collections are subjected to more varied selection methods. Child support field experience is valued highly, as is experience developing computer applications. Table 3 summarizes background information that was gathered about the state employees studied. The most common BOC staff interview is substantially different from the interview that each technical writer applicant experiences. That BOC staff interview is a situational interview in which each interviewee is placed within a "work group" and given an assignment. Table 4 displays mean scores for state Bureau staff on the variables upon which they are evaluated.

Table 3. Background information gathered about state employees participating in the study

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Range</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational level (in years)</td>
<td>15.8</td>
<td>12-20</td>
<td>18</td>
</tr>
<tr>
<td>Experience in child support (in years)</td>
<td>9.7</td>
<td>1-17</td>
<td>15</td>
</tr>
<tr>
<td>Experience in other human services (in years)</td>
<td>22.0</td>
<td>--</td>
<td>1</td>
</tr>
<tr>
<td>Other related experience (in years)</td>
<td>11.0</td>
<td>1-22</td>
<td>2</td>
</tr>
</tbody>
</table>

Table 4. Factors scored during state staff hiring procedure with mean scores

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational level (in years)</td>
<td>15.83</td>
<td>18</td>
</tr>
<tr>
<td>Experience in child support (rating from 1 to 5)</td>
<td>4.93</td>
<td>15</td>
</tr>
<tr>
<td>Experience in other human services (rating from 1 to 5)</td>
<td>5.00</td>
<td>1</td>
</tr>
<tr>
<td>Other related experience (rating from 1 to 5)</td>
<td>5.00</td>
<td>2</td>
</tr>
<tr>
<td>Score on the background summary (rating from 1 to 5)</td>
<td>3.75</td>
<td>5</td>
</tr>
<tr>
<td>Application (resume, application letter) total (maximum 30)</td>
<td>23.54</td>
<td>13</td>
</tr>
<tr>
<td>Interview score (rating 1 to 5)</td>
<td>3.71</td>
<td>15</td>
</tr>
<tr>
<td>Writing exercise (rating 1 to 5)</td>
<td>3.35</td>
<td>15</td>
</tr>
<tr>
<td>Reference score (rating 1 to 5)</td>
<td>4.54</td>
<td>18</td>
</tr>
</tbody>
</table>
Evaluators look for similar skills as those evaluated during the technical writer hiring process, but, in addition, are able to see the individual work within a group framework.

**Employee status**

Several technical writers moved into state positions during the time period studied.

Also, several field workers moved into state positions either on a trial basis which eventually turned into state positions or as immediate hires. Table 5 describes those changes.

**Table 5.** Description of previous employee status for technical writers, field workers, and BOC employees

<table>
<thead>
<tr>
<th>Description of employee status</th>
<th>Number</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field workers who were hired into technical writer positions</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Technical writers who had not worked in the field</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Technical writers studied</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Field workers who were hired directly into state BOC positions</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Technical writers who were hired into state BOC positions</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Note: This includes two field workers who were tech writers before becoming state BOC employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOC employee who held a child support position</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>in another state before being hired</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOC employee who held another DHS position</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>before being hired</td>
<td></td>
<td></td>
</tr>
<tr>
<td>State BOC employees studied</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

**College major**

College majors varied as depicted in Table 6. Each employee was grouped into one of the following categories: Business or Economics; Education or English; Liberal or General Studies; Sociology; Law; Technical Writing or Communications; Political Science; or No Degree.
Technical writer applicants must have a minimum of a four-year degree to be considered. State BOC applicants are not held to that same requirement since these individuals may possess ICAR computer experience or field child support experience. That type of experience is considered valuable background for success in the state positions.

<table>
<thead>
<tr>
<th>College Major</th>
<th>Tech Writer (17)</th>
<th>BOC (18)</th>
<th>Total (35)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business/Economics</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Education/English</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Liberal/General Studies</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Sociology</td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Law</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Technical Writing/Communications</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Political Science</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>No Degree</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Educational Level (mean number of years)</td>
<td>17</td>
<td>15.83</td>
<td>16.4</td>
</tr>
</tbody>
</table>

Figure 1 graphically depicts the variety of college majors that were achieved by technical writers. Figure 2 depicts majors of state employees. The business and economics category has the most individuals while education and English and sociology have the same number. It is important to note that those individuals with no degree have an average of over 10 years of child support or human services experience.

Investigation of Null Hypotheses

Five primary research questions directed this study. The first question is, "Is there a significant difference in persistence, satisfaction, and performance between individuals who were hired for technical writer positions and individuals who were hired for state Bureau positions?"
Figure 1. College majors for 17 technical writers and 18 state BOC staff
The second question is, "Is there a significant difference in mean scores on selection variables recorded between individuals who were hired for technical writer positions and individuals who were hired for state Bureau positions?"

The third question is, "What is the relationship between each selection variable and persistence?"

The fourth question is, "What is the relationship between each selection variable and satisfaction?"

The fifth question is, "What is the relationship between each selection variable and performance?"

These research questions were studied through an investigation of the null hypotheses. The level of significance for all tests used to reject the null hypotheses was set at .10 because of the exploratory nature of the study. The null hypotheses and the findings for each are discussed below.

**H0₁** There is no significant difference between the means of persistence scores for technical writers and state Bureau employees.

**H0₂** There is no significant difference between the means of satisfaction scores for technical writers and state Bureau employees.

**H0₃** There is no significant difference between the means of performance scores for technical writers and state Bureau employees.
Persistence—The persistence or longevity score is determined in three different ways:

- **LONG**—The first technical writer began in January 1994. The cutoff date used by the researcher for counting length of service was April 1998. Therefore, the maximum number of months an individual could be employed is 52 months. The first variable is “LONG” which is a percentage (expressed in a decimal number) of the maximum 52. For example, if an individual was hired in December 1994 and is still currently a technical writer, he/she would have a .79 score on the variable (41 months total service as a technical writer divided by 52). This gives the length of service in the present position.

- **LONG52**—The second variable is “LONG52” which divides the number of months the individual has served at the Bureau (in any capacity) divided by the maximum of 52.

- **LONG2**—The third variation of persistence is “LONG2” which divides the number of months the individual has served at the Bureau (in any capacity) divided by the number of months since he/she started at the Bureau until the end of April 1998. This provides an equalizer of sorts to those who were more recently hired but who have persisted thus far in their service to the Bureau.

Satisfaction—Technical writers were asked to “rate your satisfaction with the position of technical writer” on a scale of 1 to 10 (10 being the highest). State Bureau employees were asked to “rate your satisfaction with your position at the Bureau of Collections.” The same scale of 1 to 10 was used.
Performance—Rating scores were gathered for each individual participating in the study. Performance evaluations at the Bureau of Collections include ratings on various aspects of their positions, including, but not limited to, writing ability, computer skills, coordination and organizational skills, ability to work within the BOC team structure, knowledge of child support, and communication skills. An overall rating of the individual’s performance on a scale of 1 to 5 was used for this study.

Table 7 summarizes the information gathered to compare the persistence, satisfaction, and performance scores for the two groups of employees: technical writers and state BOC employees.

Table 7. Comparison of persistence, satisfaction, and performance scores for technical writers and state BOC employees

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tech Writers</th>
<th>State Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG = time in position÷52</td>
<td>.29</td>
<td>.79</td>
</tr>
<tr>
<td>LONG52 = time as TW or BOC÷52</td>
<td>.51</td>
<td>.79</td>
</tr>
<tr>
<td>LONG2 = time of service ÷ potential</td>
<td>.93</td>
<td>.91</td>
</tr>
<tr>
<td>Satisfaction (scale of 1 to 10)</td>
<td>8.06</td>
<td>7.94</td>
</tr>
<tr>
<td>Performance (scale of 1 to 5)</td>
<td>3.72</td>
<td>4.29</td>
</tr>
</tbody>
</table>

To further compare the two groups on these variables, the researcher completed an ANOVA test. Table 8 illustrates those results.

- The first variable (LONG = length of service divided by 52) showed a highly significant difference in mean scores between the two groups. The null hypothesis is rejected.
• The second variable (LONG52 = length of service as a Bureau employee divided by 52) showed a significant difference in mean scores between the two groups. The null hypothesis is rejected.

• The third variable (LONG2 = Length of service divided by individual potential) did not show a significant difference between the groups. The null hypothesis is not rejected.

• The satisfaction variable (a self-reported rating from 1 to 10) did not show a significant difference between the two groups. The null hypothesis is not rejected.

• The performance variable (from each individual's performance appraisal rating the individual on a continuous scale between 1 and 5) showed a highly significant difference between technical writers and other Bureau employees studied. The null hypothesis is rejected.

Table 8. ANOVA test results of three factors by type of employee.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Tech Writer</th>
<th>BOC</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG</td>
<td>.29</td>
<td>.79</td>
<td>* p = .000</td>
</tr>
<tr>
<td>LONG52</td>
<td>.51</td>
<td>.79</td>
<td>* p = .010</td>
</tr>
<tr>
<td>LONG2</td>
<td>.93</td>
<td>.91</td>
<td>p = .751</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>8.06</td>
<td>7.94</td>
<td>p = .809</td>
</tr>
<tr>
<td>Performance</td>
<td>3.72</td>
<td>4.29</td>
<td>* p = .000</td>
</tr>
</tbody>
</table>

H04 There is no significant difference between the means of selection variables (application score, education in years, child support experience, human service experience, other related experience, interview score, reference score, summary score, writing score) for technical writers and state Bureau employees.
Several factors were compared to determine the differences in mean scores for the two groups: technical writers and state BOC employees. Table 9 summarizes those comparisons and significant differences for each of the selection factors. Significant differences in mean scores were found for:

- application score
- education
- other related experience
- interview score
- writing score
- length of service (LONG and LONG52)

Table 9. ANOVA test results comparing mean scores of several employment factors by type of employee.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Tech Writer</th>
<th>BOC</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application score</td>
<td>19.97</td>
<td>23.54</td>
<td>* p = .030</td>
</tr>
<tr>
<td>Education in years</td>
<td>17.00</td>
<td>15.83</td>
<td>* p = .059</td>
</tr>
<tr>
<td>Experience in child support</td>
<td>4.75</td>
<td>4.93</td>
<td>p = .315</td>
</tr>
<tr>
<td>Experience in other human services</td>
<td>4.33</td>
<td>5.00</td>
<td>p = .667</td>
</tr>
<tr>
<td>Other related experience</td>
<td>2.65</td>
<td>5.00</td>
<td>* p = .089</td>
</tr>
<tr>
<td>Interview score</td>
<td>4.31</td>
<td>3.71</td>
<td>* p = .034</td>
</tr>
<tr>
<td>Reference score</td>
<td>4.54</td>
<td>4.54</td>
<td>p = .978</td>
</tr>
<tr>
<td>Summary score</td>
<td>3.85</td>
<td>3.75</td>
<td>p = .781</td>
</tr>
<tr>
<td>Writing score</td>
<td>3.78</td>
<td>3.58</td>
<td>* p = .087</td>
</tr>
<tr>
<td>Persistence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG</td>
<td>.29</td>
<td>.79</td>
<td>* p = .000</td>
</tr>
<tr>
<td>LONG52</td>
<td>.51</td>
<td>.79</td>
<td>* p = .010</td>
</tr>
<tr>
<td>LONG2</td>
<td>.93</td>
<td>.91</td>
<td>p = .751</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>8.06</td>
<td>7.94</td>
<td>p = .809</td>
</tr>
<tr>
<td>Performance</td>
<td>3.72</td>
<td>4.29</td>
<td>* p = .000</td>
</tr>
</tbody>
</table>
Interview type

Another data element that was studied for the individuals participating in the study was the interview type. Eight of the technical writer interviewees were interviewed by one individual, the policy unit supervisor. Nine were interviewed by two-person teams of team leaders from the policy unit. Five of the BOC staff members were interviewed by the policy unit supervisor. Twelve were interviewed using the group “situational” interview. One individual was interviewed by another BOC supervisory staff member. Table 10 summarizes differences in persistence, satisfaction, and performance in relation to the type of interview.

Table 10. Comparison of scores for technical writers related to interview type

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>One-on-One</th>
<th>Duo</th>
<th>Overall</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tech Writers</td>
<td>N = 8</td>
<td>N = 9</td>
<td>N = 17</td>
<td>ρ = .905</td>
</tr>
<tr>
<td>Interview score</td>
<td>4.29</td>
<td>4.32</td>
<td>4.31</td>
<td>ρ = .905</td>
</tr>
<tr>
<td>Writing exercise score</td>
<td>3.69</td>
<td>3.87</td>
<td>3.78</td>
<td>ρ = .615</td>
</tr>
<tr>
<td>Reference score</td>
<td>4.50</td>
<td>4.57</td>
<td>4.54</td>
<td>ρ = .805</td>
</tr>
<tr>
<td>Persistence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG</td>
<td>.36</td>
<td>.23</td>
<td>.29</td>
<td>ρ = .259</td>
</tr>
<tr>
<td>LONG52</td>
<td>.82</td>
<td>.23</td>
<td>.51</td>
<td>* ρ = .000</td>
</tr>
<tr>
<td>LONG2</td>
<td>.98</td>
<td>.89</td>
<td>.93</td>
<td>ρ = .262</td>
</tr>
<tr>
<td>Satisfaction (scale of 1 to 10)</td>
<td>8.13</td>
<td>8.0</td>
<td>8.06</td>
<td>ρ = .860</td>
</tr>
<tr>
<td>Performance (scale of 1 to 5)</td>
<td>3.72</td>
<td>3.72</td>
<td>3.72</td>
<td>ρ = .987</td>
</tr>
</tbody>
</table>

Technical writers interviewed by one individual showed similar scores on the interview, writing exercise, references, satisfaction, and performance compared to those interviewed by teams of two. The only significant difference between the two groups was in persistence (LONG52), when determined by adding total service to the Bureau (as a tech
writer or as a state employee) and dividing it by 52 (the maximum number of months in the study). It must be noted that the first eight individuals hired as technical writers were interviewed by one person. The other nine involved in the study were hired through the two-person interview process.

Table 11 displays equivalent information about state employees related to the type of interview they experienced. Six individuals were interviewed by one person. Twelve individuals were interviewed through the group process.

<table>
<thead>
<tr>
<th>Interviewer</th>
<th>One-on-One</th>
<th>Group</th>
<th>Overall</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>State Employees</td>
<td>N = 6</td>
<td>N = 12</td>
<td>N = 18</td>
<td></td>
</tr>
<tr>
<td>Interview score</td>
<td>3.96</td>
<td>3.62</td>
<td>3.71</td>
<td>( \rho = .536 )</td>
</tr>
<tr>
<td>Writing exercise</td>
<td>3.88</td>
<td>3.16</td>
<td>3.35</td>
<td>* ( \rho = .064 )</td>
</tr>
<tr>
<td>Reference score</td>
<td>4.42</td>
<td>4.60</td>
<td>4.54</td>
<td>( \rho = .410 )</td>
</tr>
<tr>
<td>Persistence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG</td>
<td>.83</td>
<td>.77</td>
<td>.79</td>
<td>( \rho = .669 )</td>
</tr>
<tr>
<td>LONG52</td>
<td>.83</td>
<td>77</td>
<td>.79</td>
<td>( \rho = .660 )</td>
</tr>
<tr>
<td>LONG2</td>
<td>.83</td>
<td>.95</td>
<td>.91</td>
<td>( \rho = .282 )</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>7.5</td>
<td>8.17</td>
<td>7.94</td>
<td>( \rho = .354 )</td>
</tr>
<tr>
<td>Performance</td>
<td>4.22</td>
<td>4.32</td>
<td>4.29</td>
<td>( \rho = .671 )</td>
</tr>
</tbody>
</table>

State employees who were interviewed by the group method and by an individual interviewer showed similar levels of satisfaction and performance. Their interview scores, reference scores, and persistence rates were also similar. However, state employees who went through the group interview rated significantly lower \( (\rho = .064) \) on their writing exercise scores than those who experienced the one-on-one interview.
Table 12 contains comparisons of scores grouped by type of interview. The comparison of scores on the writing exercise indicate there is a significant difference in means of the groups: the group interviewees scored lowest (3.16) and the individuals in the two-person-team interviews scored highest (3.87). Differences in persistence scores were highly significant for length of service (LONG and LONG52). Differences in performance scores were highly significant ranging from 3.72 for two-person-team interviews, to 3.94 for the one-on-one interviews, to 4.32 for the group interviews.

Table 12. Comparison of scores for all employees related to interview type

<table>
<thead>
<tr>
<th></th>
<th>One-on-One</th>
<th>Duo</th>
<th>Group</th>
<th>Overall</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interview score</td>
<td>4.17</td>
<td>4.32</td>
<td>3.62</td>
<td>4.02</td>
<td>ρ = .104</td>
</tr>
<tr>
<td>Writing exercise score</td>
<td>3.75</td>
<td>3.87</td>
<td>3.16</td>
<td>3.58</td>
<td>* ρ = .045</td>
</tr>
<tr>
<td>Reference score</td>
<td>4.46</td>
<td>4.57</td>
<td>4.60</td>
<td>4.54</td>
<td>ρ = .763</td>
</tr>
<tr>
<td>Persistence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG</td>
<td>.56</td>
<td>.23</td>
<td>.77</td>
<td>.55</td>
<td>* ρ = .001</td>
</tr>
<tr>
<td>LONG52</td>
<td>.82</td>
<td>.23</td>
<td>77</td>
<td>.65</td>
<td>* ρ = .000</td>
</tr>
<tr>
<td>LONG2</td>
<td>.92</td>
<td>.89</td>
<td>.95</td>
<td>.92</td>
<td>ρ = .765</td>
</tr>
<tr>
<td>Satisfaction (scale of 1 to 10)</td>
<td>7.86</td>
<td>8.0</td>
<td>8.17</td>
<td>8.00</td>
<td>ρ = .856</td>
</tr>
<tr>
<td>Performance (scale of 1 to 5)</td>
<td>3.94</td>
<td>3.72</td>
<td>4.32</td>
<td>4.00</td>
<td>* ρ = .007</td>
</tr>
</tbody>
</table>

H₀₅ There is no significant relationship between the selection variable (application score, education in years, child support experience, human service experience, other related experience, interview score, reference score, summary score, writing score) and persistence.

Scores on the selection variables were related to persistence by using the Pearson Product-Moment Correlation. Table 13 contains scores on each variable for all Bureau
Table 13. Correlations for scores for all employees related to persistence

<table>
<thead>
<tr>
<th></th>
<th>LONG</th>
<th>LONG52</th>
<th>LONG2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Employees</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application score</td>
<td>$\rho = .221$</td>
<td>$\rho = .887$</td>
<td>$\rho = .354$</td>
</tr>
<tr>
<td>Education in years</td>
<td>$\rho = .236$</td>
<td>$\rho = .721$</td>
<td>$\rho = .471$</td>
</tr>
<tr>
<td>Child support experience</td>
<td>$\rho = .516$</td>
<td>$\rho = .675$</td>
<td>$\rho = .578$</td>
</tr>
<tr>
<td>Human services experience</td>
<td>$\rho = .934$</td>
<td>$\rho = .488$</td>
<td>$-$</td>
</tr>
<tr>
<td>Other related experience</td>
<td>$\rho = .118$</td>
<td>$\rho = .007$</td>
<td>$\rho = .276$</td>
</tr>
<tr>
<td>Interview score</td>
<td>$\rho = .010$</td>
<td>$\rho = .088$</td>
<td>$\rho = .359$</td>
</tr>
<tr>
<td>Reference score</td>
<td>$\rho = .900$</td>
<td>$\rho = .486$</td>
<td>$\rho = .145$</td>
</tr>
<tr>
<td>Summary score</td>
<td>$\rho = .629$</td>
<td>$\rho = .556$</td>
<td>$\rho = .233$</td>
</tr>
<tr>
<td>Writing exercise score</td>
<td>$\rho = .031$</td>
<td>$\rho = .052$</td>
<td>$\rho = .136$</td>
</tr>
<tr>
<td><em>number too small to compute</em></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Technical Writers**|      |        |       |
| Application score    | $\rho = .353$ | $\rho = .075$ | $\rho = .016$ |
| Education in years   | $\rho = .704$ | $\rho = .725$ | $\rho = .171$ |
| Child support experience | $\rho = .749$ | $\rho = .667$ | $-$ |
| Human services experience | $\rho = .667$ | $\rho = .667$ | $-$ |
| Other related experience | $\rho = .662$ | $\rho = .046$ | $\rho = .452$ |
| Interview score      | $\rho = .159$ | $\rho = .576$ | $\rho = .483$ |
| Reference score      | $\rho = .114$ | $\rho = .731$ | $\rho = .984$ |
| Summary score        | $\rho = .688$ | $\rho = .646$ | $\rho = .364$ |
| Writing exercise score | $\rho = .193$ | $\rho = .187$ | $\rho = .288$ |

| **State Bureau staff** |      |        |       |
| Application score    | $\rho = .621$ | $\rho = .612$ | $\rho = .361$ |
| Education in years   | $\rho = .695$ | $\rho = .696$ | $\rho = .768$ |
| Child support experience | $\rho = .837$ | $\rho = .833$ | $\rho = .664$ |
| Human services experience | $-$ | $-$ | $-$ |
| Other related experience | $-$ | $-$ | $-$ |
| Interview score      | $\rho = .360$ | $\rho = .361$ | $\rho = .366$ |
| Reference score      | $\rho = .058$ | $\rho = .058$ | $\rho = .035$ |
| Summary score        | $\rho = .827$ | $\rho = .846$ | $\rho = .501$ |
| Writing exercise score | $\rho = .552$ | $\rho = .567$ | $\rho = .182$ |
employees and technical writers. The null was rejected for each of the following findings of significant relationships.

For all employees grouped together, a significant correlation was found between:

- other related experience and \( \text{LONG52} \) (total length of service divided by 52) for all employees.
- interview score and both \( \text{LONG} \) (length of service as a tech writer or as a BOC employee, but not both, divided by 52) and \( \text{LONG52} \) for all employees.
- writing exercise score and both \( \text{LONG} \) and \( \text{LONG52} \) for all employees.

For technical writers, as a group, a significant correlation was found between:

- application score and both \( \text{LONG52} \) and \( \text{LONG2} \) (potential length of service).
- other related experience and \( \text{LONG52} \).

For BOC employees, as a group, a significant correlation was found between:

- reference score and all persistence scores (\( \text{LONG, LONG52, and LONG2} \)).

\( \text{Ho6} \) There is no significant relationship between the selection variable (application score, education in years, child support experience, human service experience, other related experience, interview score, reference score, summary score, writing score) and satisfaction.

Table 14 summarizes information about the relationship between each variable and the individuals' satisfaction scores. The null was rejected for the one finding of a significant relationship. For all employees grouped together, a significant correlation was found between child support experience and satisfaction. For technical writers as a group, no significant correlation was found between any of the variables and satisfaction. For state
Bureau staff as a group, no significant correlation was found between any of the variables and satisfaction.

H07 There is no significant relationship between the selection variable (application score, education in years, child support experience, human service experience, other related experience, interview score, reference score, summary score, writing score) and performance.

Table 14 also summarizes information about the relationship between each variable and the individuals’ performance scores. The null was rejected for the findings of a significant relationship between a variable and performance.

For all employees grouped together, significant relationships were found between:
- application score and performance
- reference score and performance
- writing exercise score and performance

For technical writers, as a group, significant relationships were found between:
- education in years and performance
- child support experience and performance

For state BOC employees, as a group, significant relationships were found between:
- application score and performance
- reference score and performance
Table 14. Correlations for scores for all employees related to *satisfaction* and *performance*

<table>
<thead>
<tr>
<th></th>
<th>SATISFACTION</th>
<th>PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Employees</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Application score</td>
<td>ρ = .886</td>
<td>* ρ = .017</td>
</tr>
<tr>
<td>Education in years</td>
<td>ρ = .842</td>
<td>ρ = .836</td>
</tr>
<tr>
<td>Child support experience</td>
<td>* ρ = .085</td>
<td>ρ = .161</td>
</tr>
<tr>
<td>Human services experience</td>
<td>ρ = .423</td>
<td>ρ = .657</td>
</tr>
<tr>
<td>Other related experience</td>
<td>ρ = .318</td>
<td>ρ = .266</td>
</tr>
<tr>
<td>Interview score</td>
<td>ρ = .291</td>
<td>ρ = .644</td>
</tr>
<tr>
<td>Reference score</td>
<td>ρ = .494</td>
<td>* ρ = .062</td>
</tr>
<tr>
<td>Summary score</td>
<td>ρ = .660</td>
<td>ρ = .778</td>
</tr>
<tr>
<td>Writing exercise score</td>
<td>ρ = .486</td>
<td>* ρ = .087</td>
</tr>
</tbody>
</table>

* *number too small to compute*

**Technical Writers**

<table>
<thead>
<tr>
<th></th>
<th>SATISFACTION</th>
<th>PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application score</td>
<td>ρ = .443</td>
<td>ρ = .613</td>
</tr>
<tr>
<td>Education in years</td>
<td>ρ = .481</td>
<td>* ρ = .098</td>
</tr>
<tr>
<td>Child support experience</td>
<td>ρ = .423</td>
<td>* ρ = .042</td>
</tr>
<tr>
<td>Human services experience</td>
<td>ρ = .667</td>
<td>ρ = .919</td>
</tr>
<tr>
<td>Other related experience</td>
<td>ρ = .317</td>
<td>ρ = .964</td>
</tr>
<tr>
<td>Interview score</td>
<td>ρ = .868</td>
<td>ρ = .415</td>
</tr>
<tr>
<td>Reference score</td>
<td>ρ = .431</td>
<td>ρ = .310</td>
</tr>
<tr>
<td>Summary score</td>
<td>ρ = .860</td>
<td>ρ = .823</td>
</tr>
<tr>
<td>Writing exercise score</td>
<td>ρ = .189</td>
<td>ρ = .376</td>
</tr>
</tbody>
</table>

**State Bureau staff**

<table>
<thead>
<tr>
<th></th>
<th>SATISFACTION</th>
<th>PERFORMANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application score</td>
<td>ρ = .261</td>
<td>* ρ = .011</td>
</tr>
<tr>
<td>Education in years</td>
<td>ρ = .595</td>
<td>ρ = .540</td>
</tr>
<tr>
<td>Child support experience</td>
<td>ρ = .121</td>
<td>ρ = .145</td>
</tr>
<tr>
<td>Human services experience</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Other related experience</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Interview score</td>
<td>ρ = .184</td>
<td>ρ = .213</td>
</tr>
<tr>
<td>Reference score</td>
<td>ρ = .937</td>
<td>* ρ = .018</td>
</tr>
<tr>
<td>Summary score</td>
<td>ρ = .514</td>
<td>ρ = .626</td>
</tr>
<tr>
<td>Writing exercise score</td>
<td>ρ = .690</td>
<td>ρ = .648</td>
</tr>
</tbody>
</table>
Relationships among variables

The Pearson Product Moment Correlation was performed to determine if any of the variables had significant relationships with each other. Table 15 displays the significance of the relationship between these variables.

The significance test determined that the summary score has a significant relationship to the application score, the writing score, and the interview score. The education score has a significant relationship with both the interview score and the writing score. The writing score also has a significant relationship with interview score.

<table>
<thead>
<tr>
<th></th>
<th>APP</th>
<th>EDUC</th>
<th>INTRV</th>
<th>WRIT</th>
<th>REF</th>
<th>SUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application score</td>
<td>-</td>
<td>.328</td>
<td>.429</td>
<td>.679</td>
<td>.720</td>
<td>**.095</td>
</tr>
<tr>
<td>Education score</td>
<td>.328</td>
<td>-</td>
<td>* .058</td>
<td>* .059</td>
<td>.318</td>
<td>.250</td>
</tr>
<tr>
<td>Interview score</td>
<td>.429</td>
<td>* .058</td>
<td>-</td>
<td>** .003</td>
<td>.595</td>
<td>** .003</td>
</tr>
<tr>
<td>Writing score</td>
<td>.679</td>
<td>* .059</td>
<td>** .003</td>
<td>-</td>
<td>.915</td>
<td>* .046</td>
</tr>
<tr>
<td>Reference score</td>
<td>.720</td>
<td>.318</td>
<td>.595</td>
<td>.915</td>
<td>-</td>
<td>.719</td>
</tr>
<tr>
<td>Summary score</td>
<td>* .095</td>
<td>.250</td>
<td>** .003</td>
<td>* .046</td>
<td>.719</td>
<td>-</td>
</tr>
</tbody>
</table>

* p < .10  ** p < .01

Qualitative Study

When the participating employees were contacted to secure their participation in this study, they were asked to complete a Respondent Consent Form (see Appendix M). If they agreed to participate, they were asked to complete a questionnaire and provide self-reported data about their impressions of the hiring process at the Bureau of Collections. Technical writers were asked to complete the Tech Writer Questionnaire for Personnel Selection Study (see Appendix H). State BOC employees were asked to complete the PP2, PP3, MA3 Questionnaire for Personnel Selection Study (see Appendix K). Each of the surveys asked
questions which could be answered by a rating or by supplying comments. The final question on each survey asks the participant to rate from 1 to 10 how important the variables were or have been to their persistence, satisfaction, and performance as a BOC employee. Table 16 displays those ratings for all employees. Table 17 breaks down those ratings for technical writers and for state BOC employees.

The variable rated as affecting persistence the least by the group as a whole was working at the Hoover Building; by technical writers, working at Hoover; and by BOC employees, initial training.

Table 16. Mean scores of self-reported ratings of importance of several employment variables related to persistence, satisfaction, and performance for both technical writers and state BOC employees

<table>
<thead>
<tr>
<th>Variable</th>
<th>Persistence</th>
<th>Satisfaction</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application procedures</td>
<td>4.21</td>
<td>5.09</td>
<td>4.60</td>
</tr>
<tr>
<td>BOC Interviewer</td>
<td>5.85</td>
<td>5.97</td>
<td>5.29</td>
</tr>
<tr>
<td>Working at Hoover</td>
<td><strong>3.53</strong></td>
<td><strong>4.63</strong></td>
<td>4.71</td>
</tr>
<tr>
<td>BOC orientation process</td>
<td>3.88</td>
<td>4.65</td>
<td><strong>4.21</strong></td>
</tr>
<tr>
<td>Initial training</td>
<td>4.42</td>
<td>5.29</td>
<td>5.38</td>
</tr>
<tr>
<td>Supervisor</td>
<td>7.15</td>
<td>7.71</td>
<td>7.88</td>
</tr>
<tr>
<td>Team leader(s)</td>
<td>6.64</td>
<td>6.88</td>
<td>7.06</td>
</tr>
<tr>
<td>College major</td>
<td>4.76</td>
<td>5.51</td>
<td>5.83</td>
</tr>
<tr>
<td>Prior computer experience</td>
<td>6.21</td>
<td>6.94</td>
<td>7.17</td>
</tr>
<tr>
<td>Oral communication skills</td>
<td>7.03</td>
<td>7.66</td>
<td>7.97</td>
</tr>
<tr>
<td>Writing skills</td>
<td>7.38</td>
<td>8.06</td>
<td>8.54</td>
</tr>
<tr>
<td>Prior teamwork experience</td>
<td>6.74</td>
<td>7.35</td>
<td>7.41</td>
</tr>
<tr>
<td>Enjoyment of teaming</td>
<td>7.38</td>
<td>7.94</td>
<td>8.18</td>
</tr>
<tr>
<td>Problem-solving skills</td>
<td>7.71</td>
<td><strong>8.37</strong></td>
<td><strong>8.60</strong></td>
</tr>
<tr>
<td>Organizational skills</td>
<td>7.41</td>
<td>7.91</td>
<td>8.20</td>
</tr>
<tr>
<td>CSRU role understanding</td>
<td>6.15</td>
<td>6.00</td>
<td>6.30</td>
</tr>
<tr>
<td>Prior child support exp.</td>
<td>5.71</td>
<td>5.34</td>
<td>5.97</td>
</tr>
<tr>
<td>Prior human services exp.</td>
<td>5.29</td>
<td>5.39</td>
<td>5.89</td>
</tr>
<tr>
<td>Prior tech writing exp.</td>
<td>5.06</td>
<td>5.35</td>
<td>5.56</td>
</tr>
</tbody>
</table>
The variable rated as affecting persistence the most by the group as a whole was problem-solving skills. On the other hand, technical writers rated problem-solving skills as the variable affecting persistence the most. BOC employees rated problem-solving skills and organizational skills highly.

The variable rated as affecting satisfaction the least by the group as a whole was working at Hoover; by technical writers, prior child support experience; and by BOC employees, initial training.

Table 17. Mean scores of self-reported ratings of several employment variables related to persistence, satisfaction, and performance individually reported for technical writers and state BOC employees separately

<table>
<thead>
<tr>
<th>Variable</th>
<th>TW</th>
<th>BOC</th>
<th>TW</th>
<th>BOC</th>
<th>TW</th>
<th>BOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application procedures</td>
<td>3.88</td>
<td>4.50</td>
<td>5.12</td>
<td>5.06</td>
<td>4.12</td>
<td>5.06</td>
</tr>
<tr>
<td>BOC Interviewer</td>
<td>5.94</td>
<td>5.76</td>
<td>6.12</td>
<td>5.82</td>
<td>4.76</td>
<td>5.82</td>
</tr>
<tr>
<td>Working at Hoover</td>
<td>2.88</td>
<td>4.11</td>
<td>3.94</td>
<td>5.28</td>
<td>3.82</td>
<td>5.56</td>
</tr>
<tr>
<td>BOC orientation process</td>
<td>3.94</td>
<td>3.82</td>
<td>3.94</td>
<td>5.35</td>
<td>3.94</td>
<td>4.47</td>
</tr>
<tr>
<td>Initial training</td>
<td>5.63</td>
<td>3.29</td>
<td>5.88</td>
<td>4.71</td>
<td>6.41</td>
<td>4.35</td>
</tr>
<tr>
<td>Supervisor</td>
<td>7.13</td>
<td>7.17</td>
<td>7.75</td>
<td>7.67</td>
<td>8.06</td>
<td>7.72</td>
</tr>
<tr>
<td>Team leader(s)</td>
<td>6.69</td>
<td>6.59</td>
<td>6.69</td>
<td>7.06</td>
<td>6.75</td>
<td>7.35</td>
</tr>
<tr>
<td>College major</td>
<td>4.81</td>
<td>4.72</td>
<td>5.94</td>
<td>5.11</td>
<td>6.82</td>
<td>4.89</td>
</tr>
<tr>
<td>Prior computer experience</td>
<td>6.56</td>
<td>5.89</td>
<td>7.29</td>
<td>6.61</td>
<td>7.71</td>
<td>6.67</td>
</tr>
<tr>
<td>Oral communication skills</td>
<td>6.69</td>
<td>7.33</td>
<td>7.65</td>
<td>7.67</td>
<td>7.88</td>
<td>8.06</td>
</tr>
<tr>
<td>Writing skills</td>
<td>7.00</td>
<td>7.72</td>
<td>8.24</td>
<td>7.89</td>
<td>8.71</td>
<td>8.39</td>
</tr>
<tr>
<td>Prior teamwork experience</td>
<td>6.88</td>
<td>6.61</td>
<td>7.56</td>
<td>7.17</td>
<td>7.75</td>
<td>7.11</td>
</tr>
<tr>
<td>Enjoyment of teaming</td>
<td>7.19</td>
<td>7.56</td>
<td>8.06</td>
<td>7.83</td>
<td>8.19</td>
<td>8.17</td>
</tr>
<tr>
<td>Problem-solving skills</td>
<td>7.44</td>
<td>7.94</td>
<td>8.18</td>
<td>8.56</td>
<td>8.59</td>
<td>8.61</td>
</tr>
<tr>
<td>Organizational skills</td>
<td>6.81</td>
<td>7.94</td>
<td>7.59</td>
<td>8.22</td>
<td>7.88</td>
<td>8.50</td>
</tr>
<tr>
<td>CSRU role understanding</td>
<td>5.67</td>
<td>6.56</td>
<td>5.31</td>
<td>6.61</td>
<td>5.40</td>
<td>7.06</td>
</tr>
<tr>
<td>Prior child support exp.</td>
<td>3.92</td>
<td>7.00</td>
<td>3.64</td>
<td>6.67</td>
<td>4.36</td>
<td>7.22</td>
</tr>
<tr>
<td>Prior human services exp.</td>
<td>4.00</td>
<td>6.12</td>
<td>4.55</td>
<td>5.94</td>
<td>5.00</td>
<td>6.47</td>
</tr>
<tr>
<td>Prior tech writing exp.</td>
<td>4.73</td>
<td>5.33</td>
<td>5.25</td>
<td>5.44</td>
<td>5.44</td>
<td>5.67</td>
</tr>
</tbody>
</table>
The variable rated as affecting satisfaction the most by the group as a whole was problem-solving skills; by technical writers, writing skills; by BOC employees, problem-solving skills.

The variable rated as affecting performance the least by the group as a whole was BOC orientation process; by technical writers, working at Hoover; by BOC employees, initial training.

The variable rated as affecting performance the most by the group as a whole was problem-solving skills; by technical writers, writing skills; by BOC employees, problem-solving skills.

**Technical writer questionnaire**

Technical writer survey questions asked about how well the items on the summary reflect the scope of the position, how well the job description describes the scope of the position, how well the questions asked during the interview drew out required background information, the predictive value of the writing exercise, and how effective the selection process is in identifying skills. Table 18 displays the means of the scores on those questionnaire items.

**Technical writer questionnaire comments**

Many comments were received about the topics covered in the questionnaires. Several technical writers commented on the fact that the technical writer position was an Iowa State University position.
Table 18. Mean scores of technical writer questionnaire items

<table>
<thead>
<tr>
<th>Summary reflects scope</th>
<th>Mean Rating Score</th>
<th>Range</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication skills</td>
<td>8.73</td>
<td>3 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer skills</td>
<td>8.46</td>
<td>4 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem-solving skills</td>
<td>8.33</td>
<td>6 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team player ability</td>
<td>8.53</td>
<td>4 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational skills</td>
<td>8.53</td>
<td>5 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agency role knowledge</td>
<td>7.33</td>
<td>4 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job description reflects scope</td>
<td>5.94</td>
<td>3 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questions drew out information</td>
<td>8.71</td>
<td>7 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing exercise predictive</td>
<td>6.81</td>
<td>3 9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selection process identifies skills</td>
<td>7.76</td>
<td>4 9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- “Although it is likely that I would have applied anyway, the fact that it is an ISU position made the position more appealing to me because I have worked for ISU in the past.”

- “If I had known initially that the position was in Des Moines, I would have been more hesitant to apply.”

- “I applied because of the ISU advertisement. I wanted to be affiliated with the University, but I would have applied for the DHS position also.”

- “The fact that it was an ISU position did make the position more attractive to me.”

Several comments were received regarding the requirement to summarize experience and education in relation to the six critical areas (communication skills, computer skills, problem-solving skills, team player ability, organizational skills, and agency role knowledge).
• "I liked that someone had thought through the hiring process enough to get the information in an organized fashion. The process also helped me think through my qualifications for the position."

• "Given my background, I felt that I would be a very strong candidate for the position. If it had been a normal state position, I would not have been given a chance."

• "I was happy to do it, because I figured it would greatly decrease the pool of applicants and thereby increase my chances for the job."

• "I was in the process of applying for many jobs at that time, in a variety of agencies. What was asked seemed fairly standard to me."

A related question was asked about how well the individual thought the items on the summary reflect the scope of the position.

• "They were very reflective. I didn't have agency role knowledge and believe it would have been very helpful."

• "I do not have the questions and my responses at hand to review, but I recall that these certainly are the important categories of skills and knowledge. I recall feeling some of the questions were vague or couched in bureaucratic language, which I thought was ironic for a writing position."

• "A person does not need any background in law (agency role) to be able to fit into this department."

• "The agency role knowledge can be taught."
A question was asked about how well the job description reflected the scope of the position. Several individuals commented in addition to providing a rating.

- "The job description I was sent from ISU was inaccurate in almost every regard."
- "The description did not fit well with eventual duties."
- "I believed that this position would deal with actual writing and editing of manuals, brochures, and other written materials. Actually you are more of a project officer."
- "It would be difficult with a position that varies so widely to really include all possible duties in a brief description."
- "I am eternally grateful that the work I am actually doing is much broader and a much better fit with my skills and abilities than the job description indicated."

The questionnaire also included an item asking whether they thought the questions asked effectively drew out required information.

- "I thought the interview was very well done, well planned, and I reacted very positively to the presentation skills of the interviewers."
- "My recollection of the interview was quite positive. I recall the questions as being valid and leaving me feeling that the process was a good one."
- "When specific examples are requested, I think people are more likely to provide information, whether accidentally or on purpose."
- "Both interviewers asked key questions that were extremely significant to direct performance and interaction in this position."
"I felt the interviewing process went well. It did not draw much out of me on my computer skills, which was good for me as mine were very limited at the time."

When asked to rate how well performance on the writing exercise predicted how well they performed the writing duties of the position, several made additional comments.

"It mostly tested how well you could write and explain to an NCP at a lower level. However, it did not reflect the gamut of writing that this position requires—manual, other professionals, field staff, inter-central office writings, etc."

"One that I had was past experience with child support. I had experienced similar writing situations."

"I believe that it was a reflection on my writing ability as a whole, but I have not done a similar writing piece since then."

"The test was more to check ability to reference statutes and style of reply (i.e., antagonistic)."

"I have a mixed comment on this one. I thought the exercise was valuable. I just felt that I did not do my best example of writing. It was personal to me, not to reflect on the assignment."

"I was able to absorb the problem, the law, and actually get something on paper within the time limit only because I was already familiar with law and terminology. If I hadn’t been, I could not have written that quickly. But I feel the tone expected in the writing sample was appropriate and that it was a legitimate type of writing exercise, more useful than asking for writing samples."
- "Actually, I only wrote one letter similar to my writing exercise during my entire employment."
- "I don’t feel the writing sample was sufficient in depth to observe the applicant’s ability compared to the actual job tasks."

Another item on the questionnaire asked about the effectiveness of identifying skills needed to perform technical writing duties. Several individuals commented in addition to providing a rating.

- "The only thing I feel needed improvement in my case was ISU’s information on the position that they sent out."
- "Very good, many talented people have been hired as technical writers by the BOC."
- "I think the selection process should include a way to identify technical skills in addition to the writing exercise."
- "Having proficiency in the six skill areas listed above is important but does not ensure success at BOC. Not sure what skills are needed to succeed here."
- "I am not certain that the process is in question, but it may be difficult to determine if a person has the ability to think globally and to dissect complex issues."
- "The selection tools were fine and appropriate. The length of time between application and hiring was very discouraging."
- "Needs to be more in depth to perceive a person’s ability."
When asked to rate their satisfaction with the technical writer position, several made additional comments.

- "It was a very good experience for me. I learned an immense amount."
- "Excellent group of co-workers, good leave benefits, interesting work."
- "I believe my work as a technical writer is important and that my co-workers appreciate my skills and contributions."
- "I had a problem with the mandatory overtime."
- "I did not like the feeling the contract could be canceled at any moment. I viewed the position as an opportunity to prove my skills and work for a state position."

Table 19 lists the top three reasons individuals reported that they left the position.

<table>
<thead>
<tr>
<th>Table 19. Reasons for leaving the technical writer position</th>
</tr>
</thead>
<tbody>
<tr>
<td>More responsibility and challenges</td>
</tr>
<tr>
<td>More autonomy</td>
</tr>
<tr>
<td>More secure position</td>
</tr>
<tr>
<td>Easier to promote to other state positions</td>
</tr>
<tr>
<td>Full-time state position</td>
</tr>
<tr>
<td>More money</td>
</tr>
<tr>
<td>The job I went to was the job I really desired</td>
</tr>
<tr>
<td>More stable position with the State of Iowa, not subject to contract negotiations</td>
</tr>
<tr>
<td>Job opportunity more related to my training</td>
</tr>
<tr>
<td>Felt uncomfortable with contract. Contract in its final year</td>
</tr>
<tr>
<td>Resented mandatory overtime in the contract</td>
</tr>
</tbody>
</table>

**BOC questionnaire**

State BOC employees were asked similar questions on the questionnaire they completed. In addition to the above items, they were asked about their impression of the effectiveness of the group interview scenario.
BOC questionnaire results

State BOC employees self-reported their ratings of the effectiveness of the various aspects of the hiring procedure. Table 20 lists mean scores of the items on the employee questionnaire, including the individuals' ratings of the group interview scenario, in which technical writers were not required to participate.

Table 20. Mean scores of state BOC employee questionnaire items

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean Rating Score</th>
<th>Range</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary reflects scope</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication skills</td>
<td>8.58</td>
<td>6</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Computer skills</td>
<td>7.58</td>
<td>3</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Problem-solving skills</td>
<td>8.75</td>
<td>7</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Team player ability</td>
<td>8.50</td>
<td>3</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Organizational skills</td>
<td>8.25</td>
<td>3</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Agency role knowledge</td>
<td>7.92</td>
<td>6</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Job description reflects scope</td>
<td>7.44</td>
<td>4</td>
<td>10</td>
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<tr>
<td>Questions drew out information</td>
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<tr>
<td>Writing exercise predictive</td>
<td>6.86</td>
<td>3</td>
<td>10</td>
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<tr>
<td>Selection process identifies skills</td>
<td>7.29</td>
<td>4</td>
<td>9</td>
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<tr>
<td>Group scenario effective</td>
<td>6.09</td>
<td>1</td>
<td>10</td>
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BOC questionnaire comments

Many state Bureau employees also made comments on their questionnaires. Comments were similar to those made by technical writers. The following description accentuates those opinions and comments. The first question asked the individuals how well the person's interview uncovered unique qualifications. Answers varied as follows:

"I went through two different interview processes. The first was a group activity I felt was worthless. The second was a regular interview which did demonstrate my abilities and qualifications."
• "The interview covered key skill areas for the job, but only covered about 50% of my qualifications."

• "Very well. It (group scenario) particularly uncovered my people and teamwork skills."

• "I do not think my qualifications were uncovered in the group interview. I was too concerned about remembering the 'words.' I felt like I was under a lot of pressure."

• "Very well except the role playing."

• "Fairly well, but at the time, they appeared to be particularly looking to hire people with CSRU field experience."

• "Not very well. Only specific qualities desired were addressed."

• "It was difficult to show your own strengths when there were several others in the same group, some of whom may have been over-powering. Doesn't necessarily mean you were less capable."

One of the BOC questionnaire items asked about the effectiveness of the group interaction scenario. Several people commented in addition to providing a rating (which ranged widely from 1 to 10).

• "If teamwork skills are important, it is very revealing."

• "The names used in the exercise were difficult to remember. I personally did not feel good about the interview experience and felt I was not given clear instructions to prepare for the interview."
• "Worthless."
• "The group interview is unique. It works better for PP3 than other positions."
• "I do remember this and felt it was highly effective."
• "Very unusual experience. I’ve never seen this done anywhere else."

BOC employees commented about how the interview and selection process could more effectively identify individuals who will perform the position well and who will stay with the Bureau.

• "Eliminating the group session would give applicants a better chance to show their skills."
• "I think the current process is very effective. Recognition must be given to the intrinsic value people find in their work (hard to measure). I often heard people who had been at BOC for a long time talk about this as a major factor in their longevity at BOC."
• "I am not sure. I think we really need experienced people from CSRU at the PP2 level."
• "Ideally, a group and one-on-one session are both needed."
• "More questions on values and principles."
• "Use the process equitably for all positions. Stop the hiring games. Develop consistent interview tools and always use them."
• "I think more points should be given to employees who are currently employed with CSRU. Often, people who are hired outside of CSRU use the technical writer position as a stepping stone to a position in another agency."
• "Make the writing exercise more applicable to the position and job duties."

• "If possible, look for experience with the exact position being filled."

• "Stress the demands of the job, overtime requirements."

• "Focus on people skills, personal organization and proven experience more and formal education less."

• "Have equitable treatment of candidates prior and during process. Include multiple levels of staff in decision making."

• "Have follow-up interviews. Have peers interview, not just team leaders or supervisors."

BOC employees were asked to comment on other factors that impact persistence at the Bureau. Some made no comment, but others made extensive comments.

• "The 'management' group operates as if members of 'their group' can do no wrong. People outside this 'group' have a hard time promoting a new, different, or better idea, process, etc."

• "Other factors affecting persistence might be recognition, opportunity for advancement, more money."

• "Benefits the Bureau has on society"

• "Dedication of fellow staff"

• Less overtime, more realistic expectations of projects the Bureau can accomplish."

• "The people I work with."
• "Knowing I help people."
• "Benefits package, caring co-workers, making a difference in children’s lives, contributing to the national child support program, always receiving challenging assignments."
• "Environmental comfort, loyal and respectful team players, managerial support and encouragement."
• "There needs to be a more reasonable amount of work. The constant inability to do a good job is ultimately very destructive."
• "Workload volume is a major problem. Positives include management availability, responsiveness and support, role clarity, and employee development."
• "Team leaders are wonderful and fun to work with!"
• "The facility (Hoover Building) has a negative impact: lighting, noise level, room temperature and space."

Several Bureau employees have left the Bureau and have gone on to other positions with the state, with ISU, or with private business. Table 21 displays self-reported reasons for leaving. Although many of these individuals have gone on to other opportunities that further their own career goals, some mentioned factors within the position and environment at BOC that impacted a decision to seek other employment.

Interviews

Three individuals agreed to be interviewed and to be asked additional questions about their work either as technical writers or state Bureau employees. INT1 has been a technical writer for about a year. INT2 has been a tech writer for over 3 years. INT3 has been with
Table 21. Reasons for leaving the Bureau of Collections position

<table>
<thead>
<tr>
<th>Reason for Leaving</th>
<th>Reason for Leaving</th>
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<tr>
<td>Advancement, growth opportunities</td>
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<tr>
<td>Money</td>
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<td>Change of duties</td>
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<tr>
<td>Opportunity to do applied research</td>
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<td>Opportunity for greater contact with people work affects</td>
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<tr>
<td>Better retirement benefits</td>
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<tr>
<td>Less daily travel</td>
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<tr>
<td>More control over my workload</td>
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<tr>
<td>More responsibility</td>
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<tr>
<td>More opportunity for leadership</td>
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<tr>
<td>Technology environment</td>
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<tr>
<td>Work at BOC is too demanding, expectations too high</td>
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<tr>
<td>Size of workload</td>
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<tr>
<td>Need/want change</td>
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<tr>
<td>Private sector benefits</td>
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<tr>
<td>Unclear expectations/constantly changing</td>
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<tr>
<td>Lack of training, guidance, supervision</td>
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<tr>
<td>Politics affects decisions</td>
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Central Office for over 3 years and previously worked in a field office. Many of the comments they made reflect comments made by the individuals who completed questionnaires. Other questions and responses follow.

Individuals were asked if they had received a performance evaluation during the time they had worked at BOC and if it was a helpful, meaningful experience. Comments included:

INT1  “Yes, I think it was helpful. More than anything, it gave me a pretty good feeling about where I stand with the people I work with now. My supervisors. I remember I had some feedback from my supervisor. I told her how I thought I was doing and she told me how she thought I was doing. We talked about where my strengths and weaknesses were and what areas I could improve on.”

INT2  “I had an opportunity to discuss with my supervisor some of the things that I needed to work on and it was also kind of an encouraging thing because
she pointed out the things that I had done well. We could talk about and see the large variety of things I had worked on over the year. That was kind of neat to see it all laid out. You don’t always realize how many different things you’ve worked on.”

INT3 “It would be helpful to have them more often. It pointed out areas for growth. It let me know what my supervisor thought of me and that she felt she had done the right thing hiring me and it made me feel I truly was a part of the policy unit.”

Another question asked them about their experience in a field office. One individual had worked in a field office, so didn’t need that facet of training. One individual did not have field training or experience. That person felt that the lack of field training had an impact on satisfaction with the job.

INT2 “It made working here a little more frustrating than it would if I’d had a little bit of field experience. It affected my performance also, since it may have made me a little slower to catch on to a lot of things, especially ICAR. Just knowing how certain things are done...I always had to run to somebody who had worked in the field and ask ‘Now how did you do this; how did this actually work?’”

The other interviewee had field experience as part of the initial training and provided several comments:

INT3 “It was very useful. I got a chance to observe other workers who specialized in their processes and they made sure we were pretty well-rounded as far as the processes we saw. We were able to actually sit down and do the work, which was just invaluable because it gave us hands-on experience. We got to see the frustrations the workers go through. We also had a chance to do the work ourselves and see how long it takes to access the system and generate a form. We also got feedback from the field in subtle ways of what they think of central office and they would give us hints on things that we could do once we got back here. It gave me an advantage once I got back to central office because I knew more about what was going on. I could incorporate that into what we do up here...it makes it a lot more relevant. If I didn’t have that experience, I probably wouldn’t feel as comfortable in the job as I do now or as I did even shortly after I came back.”
Another question asked of the individuals interviewed was, “What was your initial reaction to the Bureau?” General comments included that it looked as though it would be a nice place to work or that the individual knew some of the people already working in the Bureau and had made assumptions based on that knowledge. They felt their interviewers were very professional, very positive, enthusiastic, and credible.

When asked if they thought their initial application and interview were realistic job previews, the following comments were received:

INT1 “I'm not certain that it was, but I'm not certain what it could be either. I mean, she told me there was a lot of work to do and she was right. I recall the writing exercise was pretty much the same level of writing I've had to do and the same kind of analytical quality. The summary asked about team work and writing experience and computer experience, all of which are major elements of the job.”

INT2 “I experienced the group interview. We were given the scenario a day ahead of time which gave us time to read and reflect on the situation and what we felt, from our perspective, what the outcome should be. Then in the group interview, we had to discuss, between all of the interviewees, the situation and come up with a plan how to handle the customer complaint. There were six in the group. It gives you a unique perspective. You see sides of people in that environment that you don't see in a one-on-one because you see how they react to someone else, especially someone they don't know. Interaction, especially. There were a couple of clear people who came out of that interview as candidates. It surprised me that those who came in for personal interviews were not the ones who did fairly well as participants in the group interview. It's unique to see the balance of what happened.”

The individuals were then asked how they felt about working as part of team. They were also asked if they thought the team structure was an effective way of getting the work done at the Bureau of Collections.

INT “It's very effective. Other parts of the department are much less team-oriented than collections. While I think there is some room for improvement, I think the Bureau seems to work better. I think that has a lot to do with the
teamwork aspect, getting input from a lot of people instead of just a few here and there to make decisions.”

INT2 “I think a team structure in general is a good means for getting the work done. I think the team structure here could use a little work. It has evolved since I’ve been here. It’s gotten better, but I think it could use some improvement if we had more interaction between members of different teams. We have a lot of people here with a lot of diverse areas of skill and knowledge. I’m not sure we always utilize that to the best degree that we could just because we don’t know who has this expertise and sometimes you just can’t get to that person or they’re busy doing something else.”

INT3 “Yes, I like the sharing. It’s so big and complex up here that the more you can share and the more you can brainstorm with someone else or see how someone else sees the issue, the better off you’ll be because you’ll end up ultimately with a better product.”

Another question asked the individuals to give their top three work values and needs. INT1 listed support of supervisors, challenging work, and opportunities to expand knowledge and skills. INT2 listed challenge, variety, and a supportive work environment. INT3 listed reporting to work on time and doing what you’ve agreed to do, people who are willing to fight for their point of view, and multiple levels of support.

The individuals then were asked if these work values and needs are being met by the Bureau. INT1 made the following comment:

“I really appreciate supportive supervisors. It means a lot. Challenging work, definitely, there’s always something new to learn, something new to try. Someone’s always trying to stretch my brain, which is good. Opportunities are provided through the tasks we work on but also through going to extra classes outside of work. I appreciate that. It helps.”

INT2 “For the most part, yes. I was talking about my evaluation and we were looking at the list of things I’d done in the past year and I realized that I had done just about everything a person can do from working on the computer system to writing rules, to writing manual, to letters for the director, to working on various teams...and it was a list of 20 different kinds of things I had done. There is always something new coming by every day. This last
year I’ve been working on another project which was very challenging. I never knew when I walked in the door what I’d be doing that day. As we’ve all started working together more, when I started here most of the people in central office were pretty new. As we’ve worked together, and kind of learned how to build our teams, I’d say that has helped build the supportive work environment.”

INT3 “I think most of the time they are. I don’t see a lot of slackers here. Every once in awhile a couple of people come to mind that they play a lot, but I kind of bite my tongue and turn my back and go the other direction. My team members have started fighting for their points of view and I have often fought for mine. Sometimes I win, sometimes I don’t, and that’s fine. We get a lot of support. Jim and Susan support us. The field does most of the time, and we all support each other. If we didn’t, we wouldn’t make it to where we are.”

When asked to describe the organizational climate at the Bureau of Collections, each interviewee had comments about it.

INT1 “Sometimes it feels chaotic and I think a lot of people would agree with that. The longer you’re here, the more it feels that way. Shortly after I started, I thought, ‘Boy this place is organized.’ Then I talked to someone who had been here a number of years and she said that it was crisis management. I think in some ways it is that. It’s not as bad as in other areas of the department, but it’s a bit chaotic at times…organized chaos. Again, I think it’s very professional. I think all of the people (90% anyway) are very professional in the way they go about their jobs. They work well as a team, they’re concerned about others on their team and other teams, and they want to make sure everybody works together to get the best job possible done.”

INT2 “I would say it is a fast-paced and stressful, yet supportive and overall pretty positive climate.”

INT3 “Team oriented, which is out of the norm for DHS, but it works. It feels good. It’s comparable to the type of management I was used to in private industry.”

Employee interactions at the Bureau of Collections vary with daily interactions with team members, supervisors, field staff, auditing staff. The interviewees were asked to
describe their employee interactions at BOC and to relate them to their satisfaction,
performance, and persistence.

INT1 “They’re on a couple of levels. The actual work side, where we work together
and along with other members of the team, is very good. Always, everybody’s
cooperative and they work well together. You ask for help or information and
everybody’s willing to help. I hope I’m the same way. I try to be. And then of course
you have your personal interactions with each other, and again they’re wonderful
people. I consider just about everybody up here a friend. So, that’s nice; it makes
coming to work a lot more enjoyable. It definitely relates to my satisfaction. I would
not like to work somewhere where I didn’t like the people I worked with.”

INT2 “Daily interaction with my team leader, frequent interactions with other
groups. I’ve had newer members of the team come to me to answer various
questions. I’ve enjoyed helping them and sometimes helping them has helped me
relearn a couple of things. I would say the more interaction I have, the more satisfied
I am. I don’t like working in isolation. I would definitely say my job performance
is better due to my interactions because I don’t have all the answers and all the
expertise that a lot of my co-workers have. I really need their support and the
interactions I’ve had with them. I would say it also has a lot to do with how
long I’ve stayed. I would give a lot of the credit to the people I work with. I
really enjoy them. If there’s one thing that would make it really tough to leave
this job, it’s the people I work with. ISU benefits would be the other.”

INT3 “I try to be a resource for other people. I try to help them whenever I
can. I try not to be short with them. I think it has a great deal to do with my
satisfaction, because if I’m able to help somebody it makes me feel good. If
I’m able to explain to somebody how something works or why it works that
way or how it should work and they get it, I’m happy. Hopefully it helps me
do a better job too. If we didn’t have the kind of work environment we do, I
probably wouldn’t have stayed.”

Another question asked the individuals to talk about the relationship between them
and their team leader or team leaders they’ve had. They were asked to relate this facet of
their employment to their satisfaction, performance, and persistence.

INT1 “I think it’s very good. I probably feel more comfortable with my
team leader than I have with any other supervisor that I’ve ever worked for.
She is very, very supportive, very hard-working, always doing the most she
can to get her own job done and also to help me and to drop whatever she’s doing to help me out whenever I come bugging her in her office. She’s a great role model, bright, intelligent, smart, supportive. My relationship with her relates a great deal to my satisfaction, performance, and persistence.”

INT2 “It’s interesting because it’s been a learning experience for my team leader as well. We’ve learned to work together and have a good working relationship. We have a lot of open communication and I go to her to ask questions and she comes to me to ask questions. We’ve got a good system worked out. One of the other team leaders I worked with was inexperienced, but once we learned to work together, we forged a very nice working relationship. The relationship with my team leader has a great deal to do with my satisfaction. When it’s shaky, I’m not very happy and not very satisfied. It can also lessen or add to the stress if you get along with your team leader. Knowing how to work with them has a great effect on your performance. If you have a team leader who is willing to share a lot of information with you and is willing to give you your lead to figure out how to work things out for yourself, that really adds to job performance. You can figure out your best way and use your strengths to get it done. I’ve had great experiences with team leaders and that’s one of the reasons I’ve stuck around. At the point of the shaky relationship, I did think about leaving. So there’s a strong relationship.”

INT3 “With one team leader, I had to document everything to prove when I knew it wasn’t the right decision but I had to have it documented to protect myself. Another team leader was always willing to make a decision, stick by it, and be a lot more supportive. It related highly to my satisfaction. I tried not to let it affect my performance. I tried my best to do a good job anyway. I was on the verge of starting to look, so it affects persistence too. In the other situation, I learned a lot from that person, it helped me improve, and helped me to realize I should stay.”

The relationship of all three interviewees with their supervisor is very strong. They all felt that relationship has a lot to do with how satisfied they are since they feel they can talk with her, privately, and work out problems.

INT1 “I haven’t seen her much lately, but it’s very good, very professional. She’s just top-notch in everything she does. I have a lot of respect for her. She seems very together. Very supportive, which is one of my top three work needs. Being supported by your superiors and peers is very important. I respect her and I think she respects me too. I feel she has the same interaction
with others that work for her. Everybody else feels the same way too. My relationship with her relates very highly with my satisfaction, how long I’ve stayed, and my performance. She can challenge some people in a way that they haven’t been challenged before. Which is good. Being someone who likes challenge, that’s good. I like that.”

INT2 “I have a very good relationship with my supervisor, course she hasn’t been around now for awhile. But we’ve really felt the difference. We’ve missed having her around. She was always a good person to go to for any reason, whether it’s a work question, needing someone to vent to. There is a direct relationship with how satisfied I am. The relationship with performance isn’t as strong as that with the team leader, but still strong. She reviewed just about everything I’ve done, so being able to talk to her about things really made a big difference in how well I did my job. She definitely has impacted my persistence.”

INT3 “She and I get along well. My relationship with her correlates well with satisfaction. I feel I can go in and talk with her. I know it won’t go anywhere else. If I have a problem, we’ll work it out. With performance, it’s good. She’s a good performer, so we do better because she sets a good example. It has affected my staying here too. I like working for Susan. She’s one of the best supervisors I’ve had.”

A question asking them to describe their relationship with the Bureau Chief elicited a variety of comments.

INT1 “I don’t know. I respect him a lot. I’m just not sure about the relationship. He’s such a visionary and is so kind-of ‘out there’ in the way he thinks. I think I think in a different way, so we don’t connect a lot of times. That’s all right, I don’t have a lot of contact with him either. So that’s a lot of it. I have a lot of respect for him. I think he’s brilliant. And he asks tough questions. I interviewed with him one time and he asked very difficult questions. The relationship doesn’t have as much to do with my satisfaction. It’s related, because if I didn’t respect him and if he didn’t do a real good job as Bureau Chief, I don’t think I’d be as happy working for the Bureau because it wouldn’t look as good. There hasn’t been much effect on my persistence. On performance, there’s been quite a bit because of the tasks he’s given my team leader and that I’ve been involved in. He, again, is tough. He puts challenge into your job.”

INT2 “I didn’t really have much of a relationship with the Bureau Chief for the first 2 and a half years, but since my duties have changed, I’ve been going to him often, standing outside his office, waiting in line. I found that working
with him is a very frustrating experience but also a very rewarding one. Overall, I enjoy working with him, even when he’s driving me nuts. He hasn’t had a great deal of influence on my satisfaction, performance, or persistence.”

INT3 “Changing...I’m learning I can go talk to him, so it’s helping me feel more satisfied. I’m getting to see a different side of him that I hadn’t seen before, so it’s helping. He seems to be taking a more personal interest in what’s going on. Regarding performance, it’s given me new goals to strive for. He hasn’t had much influence on my persistence.”

The individuals being interviewed were asked to make any other comments they wished about working for the Bureau. They had additional comments as they considered aspects of their positions and how it feels to work at the Bureau.

INT1 “The whole hiring process has changed considerably since I was hired. I was interviewed by just one person. Now there’s generally a team of interviewers, which probably gives the interviewee a better perspective and lets the interviewers come up with a few more questions to tell a little more about the person. I know that training has changed quite a bit. When I first came on board, it was pretty haphazard and I’ve been able to see some of the training that’s been provided to the new tech writers and see what’s available. For instance, they always go out to the field, at least for some amount of time, which is a terrific idea, at least for those people who’ve never been out there. They’re getting more acclimation about the way things are done in the Bureau. The Bureau has very specific protocol and specific ways in which we get things done and I think those things have been communicated to new technical writers much better than they were when I was hired. I think there’s been a great deal of improvement.”

INT2 “The only thing with the interviewing process was the length of time it took to actually get a job offer. That’s something that I don’t think was real common with hiring tech writers but it did happen with me. It was about six months, which is a long time. It’s just a bone of contention. It’s just one of those things that sticks in the back of your mind... well, they got this one done in a month, why couldn’t they do that back then. I wanted to get out (of my old position) a lot sooner than I did.

Another thing that makes me curious—the classification of tech writer and the PP2’s do basically the same thing and yet they’re two different classifications because we get paid by two different people. While we do the same work, there’s still always kind of a little line between the two. It’s never been something that I think about much, but I’ve heard it come up from others,
that, well, you're a tech writer and you're not with the state and you're not permanent. Because we're tech writers we're not quite as good as state employees, that sort of thing. There is that pressure for tech writers to get on the register and become state employees. I think that's because they want us to become more permanent, but sometimes you wonder. It almost makes you feel that if you're not going to apply for state positions, you're not good enough.”

INT3 “Another element that impacted my longevity, satisfaction, and performance was the intrinsic reward I felt working in an area that so heavily impacted single parent, poor families. I began with the hope that I could make a positive impact, but became increasingly frustrated at the roadblocks the political process puts in the way, the roadblocks due to the size of DHS, and the lack of contact I had with the ‘real’ people my work was affecting. I felt too far removed from them. Also, I didn't feel I had control over the volume of work I was responsible for. This has something to do with the ‘urgency’ that is so pervasive in the DHS culture.”
CHAPTER V. SUMMARY, CONCLUSIONS, AND IMPLICATIONS

The final chapter of this dissertation includes a review of the research questions and methodology used to investigate the null hypotheses, a brief discussion of the findings, implications for university and bureau decision-makers, and questions for further research into the effectiveness of hiring practices in general, and hiring of technical writers in particular.

Research Questions and Methodology

The first three technical writers were hired through the Iowa State University Child Welfare Project in January 1994. Since then 20 more technical writers were hired. These individuals are Iowa State University employees who are contracted to the Bureau of Collections/Iowa Department of Human Services to help develop and implement child support policy. This study examined several pre-employment factors and hiring procedures to determine if there were significant relationships between those factors and persistence, satisfaction, and performance. Twenty state Bureau of Collections employees who work on projects and teams with the technical writers also participated and similar relationships were studied. The two groups were compared by researching whether there were significant differences in scores on the various factors.

The technical writers who were hired for the project averaged an educational level of 17 years, ranging from 16 to 20 years. Those who had previous experience in child support averaged 7.25 years working in field offices. Those who had previous experience in other types of human services averaged 7 years, ranging from 3 years to 10 years. Other
individuals had between 1 and 22 years of experience in other related areas, averaging 8.4 years.

The average educational level for State Bureau employees was 15.8 years, ranging from 12 to 20 years. Average experience in child support for this group was 9.7 years, ranging from 1 to 17. There was only one individual with other human service experience which was 22 years. There were 2 individuals with other related experience averaging 11 years.

The only individuals hired for either position who had not had previous child support experience were 13 technical writers. The one person who was hired as a state BOC employee and who did not have child support experience, had 22 years of experience in another human service agency. Five technical writers were hired into permanent state positions during the time period studied. Four others were hired into permanent positions by other state agencies or ISU. Only four left BOC, ISU, or state government entirely. Ten are currently still technical writers and five are currently state BOC employees.

The one notable fact about college majors related to type of employee is that all of the technical writers had at least a four-year degree. Of the 18 state BOC employees studied, 5 did not have a college degree. Those five without a college degree, however, have an average of over ten years of experience in child support.

Previous research had not been done on this hiring process for technical writers. This researcher concluded that it may be important to examine the relationships between educational level, experience in child support, application score, human service experience, other related experience, interview score, reference score, summary score, writing score,
and persistence, satisfaction, and performance. The differences in scores between the two
groups, technical writers and state BOC employees, were also studied to determine if there
might be certain factors that may merit stronger emphasis during the hiring process.

The first research question was, “Is there a significant difference in persistence,
satisfaction, and performance between individuals who were hired for technical writer
positions and individuals who were hired for state Bureau positions?” This question was
investigated by testing three null hypotheses. The persistence variable was computed three
different ways to determine if there were differences in length of time in the position hired for
(LONG), length of tenure at BOC (LONG52), and length of tenure compared to the potential
length based on start date (L0NG2). The null hypothesis was rejected for the first variable
(LONG) since there was a highly significant difference between the two groups (p = .000).
The null hypothesis was also rejected for the second variable (LONG52) since there was a
highly significant difference between the scores for the two groups (p = .010). The null
hypothesis was not rejected for the third variable (L0NG2) since there was not a significant
difference between the scores (p = .751).

The difference in scores on the satisfaction variable was investigated by testing one
null hypothesis. The null hypothesis was not rejected since it did not show a significant
difference between the two groups (p = .809).

The difference in scores on the performance variable was investigated by testing a
null hypothesis. The null hypothesis was rejected since the test showed a highly significant
difference in the performance scores between the two groups (p = .000).
The second research question was, "Is there a significant difference in mean scores on selection variables recorded between individuals who were hired for technical writer positions and individuals who were hired for state Bureau positions?" The question was investigated by testing one null hypothesis (for each variable). For the variable *application score*, the null was rejected since BOC employees as a group scored significantly higher ($p = .030$). For the variable *education in years*, technical writers scored significantly higher; therefore, the null was rejected ($p = .059$). For the variable *experience in child support*, there was no significant difference, so the null was not rejected ($p = .315$). This was likely due to use of the rating score for only the individuals who had child support experience instead of using the total number of years of experience. If the second method had been used, BOC employees would have a total of nearly 140 years. Technical writers have a total of 19 years of child support experience. For the variable *experience in other human services*, there was not a significant difference in scores so the null was not rejected ($p = .667$). For the variable *other related experience*, there was a significant difference and the null was rejected ($p = .089$). For the variable *interview score*, there was a significant difference in scores so the null was rejected ($p = .034$). For the variable *reference score*, the null was not rejected since there was not a significant difference in scores ($p = .978$). For the variable *summary score*, the null was not rejected since there was not a significant difference in scores ($p = .781$). For the variable *writing score*, the null was rejected since there was a significant difference in scores between the two groups ($p = .087$).
The third research question was, "What is the relationship between each selection variable and persistence?" To investigate these relationships, a Pearson Product-Moment Correlation was determined.

For the variables application score and LONG52 and for application score and LONG2, a significant negative relationship was found for technical writers. The null was rejected for this test situation. The null was not rejected for those variables for the group as a whole or for the BOC employees.

For the variables education in years and LONG, LONG52, and LONG2, there was no significant relationship for technical writers, for BOC employees, or for the group as a whole. Therefore, the null was not rejected for each of these test situations.

For the variables child support experience and LONG, LONG52, and LONG2, there was no significant relationship for technical writers, for BOC employees, or for the group as a whole. Therefore, the null was not rejected for each of these test situations.

For the variables human services experience and LONG, LONG52, and LONG2, there was no significant relationship found for technical writers, BOC employees, or the group as a whole. Therefore the null was not rejected for each of the test situations.

For the variables other related experience and LONG, LONG52, and LONG2, a significant relationship was found for technical writers for LONG52. The null was rejected for that situation. A significant relationship was not found for BOC employees or the group as whole or for technical writers for the other variables LONG and LONG2. Therefore, the null was not rejected for those situations.
For the variables interview score and LONG, LONG52, and LONG2, a highly significant negative relationship was found for the group as a whole between interview score and LONG and a significant negative relationship between interview score and LONG52. Therefore, the null was rejected for these situations. There was not a significant relationship between interview score and LONG2 for the group as a whole. There was not a significant relationship between interview score and LONG, LONG52, or LONG2 for either the technical writers as a group or for BOC staff as a group. Therefore, the null was not rejected for those situations.

For the variables reference score and LONG, LONG52, and LONG2, a significant relationship was found between each of these scores for BOC staff as a group. Therefore, the null was rejected for those test situations. For technical writers and for the group as a whole, there was not significant relationship between these variables. Therefore, the null was not rejected for those test situations.

For the variables summary score and LONG, LONG52, and LONG2, a significant relationship was not found for any of the test situations. Therefore, the null was not rejected for each of the test situations.

For the variables writing exercise score and LONG, LONG52, and LONG2, a significant negative relationship was found for the group as a whole between writing exercise score and LONG and between writing exercise score and LONG52. Therefore, the null was rejected for these test situations. No significant relationship was found for the group as whole between writing exercise score and LONG2. There was no significant relationship
found between writing exercise score and LONG, LONG52, or LONG2 for either of the groups. Therefore, the null was not rejected for these test situations.

In summary, the following relationships were significant for persistence:

- other related experience and LONG52 for all employees
- interview score and both LONG (negative) and LONG52 (negative) for all employees
- writing exercise score and both LONG and LONG52 (negative) for all employees
- application score and LONG52 (negative) and LONG2 (negative) for technical writers
- other related experience and LONG52 for technical writers
- reference score and all persistence scores (LONG, LONG52, and LONG2) for BOC employees

The fourth question asked, “What is the relationship between each selection variable and satisfaction?” The Pearson Product-Moment Correlation was used to test the null hypothesis for each pair.

For application score, education in years, human services experience, other related experience, interview score, reference score, summary score, and writing exercise score, there was not a significant relationship with satisfaction shown. Therefore the null hypothesis was not rejected for each of the groups studied: technical writers, BOC employees, and the group as a whole.
However, a significant negative relationship was shown for the group as a whole for the variables *child support experience* and *satisfaction*. Therefore, the null was rejected for this test situation.

The fifth research question was, “What is the relationship between each selection variable and *performance*?” The Pearson Product-Moment Correlation was used to test the null hypothesis for each situation.

There was a significant relationship shown between *application score* and *performance* for the group as a whole and for BOC staff. Therefore, the null was rejected for those test situations. The relationship was not significant for technical writers as a group; therefore, the null was not rejected for that test situation.

There was a significant relationship shown between *education in years* and *performance* for the technical writers as a group. Therefore, the null was rejected for that test situation. There was not a significant relationship for BOC staff or for the group as a whole. Therefore, the null was not rejected for those test situations.

There was a significant negative correlation between *child support experience* and *performance* for the technical writer group. Therefore, the null was rejected for that test situation. There was not a significant relationship shown for these variables for the BOC group and for the group as a whole. The null was not rejected for these test situations.

There was not a significant relationship shown between *human services experience*, *other related experience*, *interview score*, or *summary score* and *performance* for either of the groups or for the group as a whole. Therefore, the null was not rejected for any of those test situations.
There is a significant relationship between reference score and performance for the BOC staff as a group and for the group as a whole. Therefore, the null was rejected for these test situations. There was not a significant relationship between these variables for the technical writer group. Therefore, the null was not rejected for that test situation.

There is a significant negative correlation between writing exercise score and the performance score for the group as a whole. Therefore, the null is rejected for this test situation. There was not a significant relationship between writing exercise score and performance for either of the two groups, however. The null was not rejected for those test situations.

In summary, the following relationships with performance were significant:

- application score for the group as a whole and for BOC staff
- education in years for technical writers
- child support experience for technical writers (negative)
- reference score for the group as a whole and for BOC staff
- writing exercise score for the group as a whole (negative)

Conclusions

There were significant differences in scores on several variables between the two comparison groups. A summary of the findings resulting from testing the null hypotheses follows:

- BOC employees have, as a group, been in their positions longer (LONG). This may be due to many factors such as four of the tech writers studied were hired less than six months ago. Also, several tech writers moved into other BOC
positions during that time period. They also have been with the Bureau longer, for many of the same reasons. When comparing the length of time the individual has been with the bureau with how long they "could" have been with the Bureau since they started, the differences are not significant.

- Technical writers reported slightly higher levels of satisfaction with their positions although the difference was not significant.

- BOC employees, as a group, rated higher performance scores. Partly, this may be due to the longer length of time they have been with the Bureau since technical writers averaged about 14.9 months while BOC employees averaged 42.5 months during the same time period studied. Another factor is the level of the duties performed. Twelve of the eighteen BOC employees are performing team leader functions.

- BOC employees scored significantly higher on the application score, and on other related experience.

- Technical writers scored significantly higher on the education in years variable, on the interview score, and on the writing score.

- The relationship between the persistence variables and the selection variables were difficult to determine and understand. A negative correlation for application score and both LONG52 and LONG2 for technical writers may merely reflect the movement of the individuals into BOC positions and high scores of the most recent tech writer hires.
The relationship between other related experience and LONG52 for technical writers is interesting. It indicates that those hired into technical writer positions, if they didn’t have child support or human service experience, had strong work histories that have contributed to their length of tenure at BOC.

The negative relationships between interview score and two of the three persistence variables for the group as a whole may also reflect the fact that recent hires have scored high on the interview. It may also reflect the difference in the interview type for those who have been most recently hired (generally scores were higher for one-on-one and two-person team interviews than for the group interviews). Most recent hires have been interviewed by two-person teams.

In general, group interviewees scored lower on the interview score and significantly lower on the writing exercise score, but higher on the reference score. They reported higher satisfaction with their jobs and received a higher performance rating.

The relationship between reference score and all three persistence variables for BOC staff indicates that this may be a good indicator of an individual’s potential length of tenure. Since many of the BOC staff had child support experience, it may have been possible to get more accurate appraisals of a person’s work.

The negative relationship between writing exercise score and two of the three persistence variables may be due to the most recent hires being technical writers who, as a group, scored significantly higher than BOC employees on the writing
exercise. On the other hand, Cesare (1991) also found the written test to have an inverse relationship with tenure.

- The relationship between satisfaction and the rest of the variables was not significant except for the negative relationship between satisfaction and child support experience. The satisfaction score was self-reported and therefore more subjective. The results indicate that the more child support experience the individuals had, the lower they rated their satisfaction.

- The significant relationship between application score and performance indicates its importance in identifying high potential employees (especially for BOC employees).

- The significant relationship between education and performance for technical writers may be due to the variety of backgrounds involved since the position requires at least a bachelors’ degree and several individuals have attained masters’, law, and other advanced degrees.

- The negative correlation between child support experience and performance for technical writers is based on only four observations, so may not be convincing.

- The significant relationship between reference score and performance for BOC staff and for the group as a whole indicate indicates that this may be a good indicator of an individual’s potential, especially for BOC staff. Since many of the BOC staff had child support experience, it may have been possible to get more accurate appraisals of a person’s work, as mentioned above.
The negative correlation between writing exercise score and performance for the group as a whole may be partly due to BOC staff, in general, receiving higher performance scores. As mentioned above, technical writers scored significantly higher on the writing exercise but significantly lower on performance. Since writing is an integral part of the technical writing job, one might assume that management might weight that skill highly on the performance appraisal. However, other factors, such as system knowledge and time management are considered in the overall score. Those factors are less important in the interview for technical writers but are considered in the performance scores for all employees.

Qualitative Component

It is more difficult to draw conclusions from qualitative aspects of the study. The questionnaires received from participants provided information about their perceptions of the hiring process. The questions on the questionnaires were developed after an extensive literature search which helped identify the information required and how to solicit answers which would provide the desired information. Blau (1993), Boerlijst and Meijboom (1989), Cesare (1991), Holland (1973), McEvoy and Cascio (1985), Nevo (1989), Rynes (1993), and Wanous (1992) especially provided background needed to assemble the questions both for the written questionnaire and the face-to-face interview.

The ratings by the participants as shown in Table 16 in Chapter IV lead to several conclusions.
Participants believe that problem-solving skill is the most important employment variable related to persistence, satisfaction, and performance. Technical writers, as a group, and BOC employees, as a group, agree.

Participants believe that the supervisor, oral communication skills, writing skills, enjoyment of teaming, and organizational skills are also very important factors relating to persistence.

The supervisor, oral communication skills, writing skills, prior teamwork experience, enjoyment of teaming, and organizational skills are also felt to be very important related to satisfaction. Technical writers feel writing skills are most important while BOC employees feel problem-solving skills are most important.

The supervisor, team leader(s), prior computer experience, oral communication skills, writing skills, prior teamwork experience, enjoyment of teaming, and organizational skills are felt to be most important to performance. Technical writers believe writing skills are most important. BOC employees feel problem-solving skills are most important.

Participants believe that working at the Hoover Building in Des Moines is the least important employment variable related to their persistence. Others considered least important for persistence are application procedures, BOC orientation process, initial training, and college major. Technical writers feel working at Hoover is least important while BOC employees feel initial training is least important for persistence.
• Participants believe that working at the Hoover Building in Des Moines is the least important employment variable related to their satisfaction. Another variable considered least important for satisfaction is the BOC orientation process. Technical writers feel prior child support experience is least important while BOC employees feel initial training is least important.

• Participants believe the BOC orientation process is the least important variable related to performance. Other variables considered least important for performance are application procedures and working at Hoover. Technical writers believe working at Hoover relates to performance the least while BOC employees believe initial training is least important to performance.

Other notable findings lead this researcher to conclude:

• Technical writers do not feel the job description for technical writer fits the position (5.94 rating). BOC employees rated the job description higher (7.44 rating). Comments from questionnaires indicated that the job description was inaccurate and did not fit well with eventual duties. The job description may need revision to more accurately reflect the actual duties of technical writers.

• BOC employees who have experienced the group scenario gave the effectiveness of that tool a low score (6.09 rating). One might conclude that this tool is disliked by many, although several made comments that it may bring out qualities in a PP3 candidate that a regular interview may not.

• In general, technical writers thought the required summary reflected the scope of the position. Agency role knowledge was the lowest score. One comment was
made that the "agency role knowledge can be taught." BOC employees also rated the summary highly.

- Comments from the technical writer questionnaire indicate that technical writers appreciate being ISU employees and may not have applied or gotten the position if it had been a state position. They also appreciated the requirement to write a summary. They felt it gave them a chance at the position because the requirement would weed out people who may have applied if the requirements weren't as time-consuming. Another person liked the process since it was so organized and because it made her think through her qualifications.

- Comments also indicated that the individuals thought the questions asked during the interview effectively drew out information by asking key questions that were significant to the duties of the position and that the interview was well planned.

- Technical writers made several comments about the writing exercise, indicating that while it reflected on writing ability, it may not be an accurate picture since writing for the technical writer position is much more varied and broader in scope.

- A question about the effectiveness of the hiring process for identifying skills elicited several comments about the quality of the technical writers that have been hired. Suggestions for improvement include a better job description, adding a component to measure technical skills, measuring global thinking and dissection of complex issues, and decreasing the time between application and job offer.

- When asked to rate their satisfaction with the technical writer position, several comments were heard about learning a lot, having an excellent group of co-
workers, good benefits, interesting work, and important work. Suggestions for improvement included reassessing mandatory overtime. Several people were concerned that the contract could be canceled at any time.

- Reasons for leaving the position centered around wanting more responsibility and challenge, wanting a more secure position, and wanting more money.

Bureau employees were asked to complete a questionnaire also. Comments are detailed in Chapter IV. One of the common threads was that many people dislike the group interaction scenario. Another comment heard often was that the workload expectations are unrealistic and the volume of work is a major problem. Reasons for leaving the Bureau include wanting advancement, more money, better benefits, more control over the workload, lack of training, guidance, and supervision, and politics affecting decision-making. Reasons for staying include receiving recognition, benefits the Bureau has on society, dedication of staff, making a difference in children’s lives.

Interviews held with participants enable readers to gain insight into what working for the Bureau in different capacities is really like. A question about performance evaluations reinforces the feeling that employees appreciate having the chance to discuss their work with their supervisors.

A question about field office experience also reinforced a Bureau initiative to ensure that new workers get the field exposure they need to develop an overall perspective of the work that is done by the Bureau and how the individuals fit into the overall framework.

Initial reactions to the Bureau, through the initial interview, were positive. A comment was made about the group scenario, that interviewers get to see a side of the
candidate that they wouldn't be able to see if the group activity were not a part of the
interview process. The group interaction insight can be very valuable.

The individuals interviewed felt that the team structure at BOC is a very effective way
to get work done. The more sharing that is involved, the better the end product.
Improvement may be needed in developing opportunities for even more sharing of ideas,
strategies, and knowledge.

Top work values and needs mentioned by the interviewees include support of
supervisors, challenging work, opportunities to expand knowledge and skills, variety, and a
strong work ethic. For the most part, the individuals thought their work needs were being
met by BOC.

The interviewees described the work environment in various, sometimes conflicting
ways. It is seen as organized chaos, based on crisis management, professional, team-
oriented, fast-paced, stressful, and positive. This relates to interactions with other employees
also, since they feel their interactions are very good and it helps build the supportive
environment they desire. They feel the people they work with are a major part of the
satisfaction they feel, how long they have stayed, and how well they do on their jobs.

Team leader relationships are varied with comments ranging from feeling comfortable
and challenged to experiencing open communication, sharing, sticking by decisions. At times
relationships have been rocky, but, for the most part, individuals have been able to work
through the problems and forge strong relationships. Since the researcher is one of those
team leaders and one of the interviewees is a member of that person's team, the researcher
took extra precautions to seek input from members of other teams who talked about
relationships with other team leaders. All individuals participating in the survey and in the project as a whole were aware that the researcher was a part of the group and a team leader. The team leader at BOC is not considered a supervisor.

Relationships with the supervisor are excellent. Individuals feel she is very supportive, very professional, respectful, and challenging. They feel their persistence, satisfaction, and performance all relate highly with that relationship.

Relationships with the Bureau chief are more varied. Since he has not been closely involved with the work each individual has performed, it is more difficult to assess. They feel he is a very good administrator, very visionary, and very challenging.

Other comments are important to consider. One individual mentioned that training has improved considerably, especially allowing individuals to train in a field office. Another individual suggested ISU and the Bureau try to reduce the length of time it takes to make the job offer. Another comment about the difference between state BOC PP2 positions and technical writers is important for the morale of the unit. It may be important for management to communicate the importance of all job classifications, whether ISU employees contracted to BOC or state BOC employees.

A comment about the intrinsic reward people feel about the impact they have on children and families encourages the Bureau to keep its eye on its mission and remind employees often of the good work they are doing and how it’s affecting those children and families.

A concern has developed in the past year that there are fewer applicants for these positions. One reason could be the change in availability of workers state and nationwide.
Worker shortages affect state government and university hiring at many levels. The labor demand may be a variable that has an impact on the results of future selection processes.

Implications

The purpose of the Cooperative Reimbursement Program Extension Agreement between the Bureau of Collections/Iowa Department of Human Services and Iowa State University is to provide through the resources and professional ability of ISU, assistance in the development of a single, statewide, comprehensive system for child support enforcement that fully meets federally mandated function requirements. The individuals hired will upgrade the department’s employee manual related to child support and provide specifications for related computer programs and necessary administrative support to complete the tasks. Ultimately, the increased efficiency and effectiveness of Iowa’s child support program benefits society as a whole and children and families of Iowa.

This unique cooperative agreement was one of the major reasons that the Bureau of Collections achieved unconditional certification of its child support computer system in November of 1997 from the federal government. The success of this program is due in large part to the ability of the Bureau and ISU to hire high quality individuals to perform technical writing necessary to prepare specifications, test the system, and write necessary manual and field directives.

This study analyzed the effectiveness of various aspects of the hiring process. The question about whether state employees and technical writers stayed with their positions longer, were more satisfied, and performed at a higher level was posed and examined. Results of the study indicate that any differences in persistence are generally due to the
timing of the hires and a tendency to hire existing Bureau or ISU employees for vacant 
Bureau positions. Table 22 displays a comparison of scores on the persistence variables 
between the two groups.

Table 22 displays a comparison of satisfaction scores for the two groups, listing self-
reported scores for technical writers, for BOC employees, and for the group as a whole. 
Results indicate that problem-solving and writing are the two variables that employees feel 
have the most effect on their performance.

Table 22. Persistence variable scores comparing technical writers with BOC staff

<table>
<thead>
<tr>
<th></th>
<th>Tech Writer</th>
<th>BOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>LONG = time in position / 52</td>
<td>.29</td>
<td>.79  **</td>
</tr>
<tr>
<td>LONG52 = time as employee / 52</td>
<td>.51</td>
<td>.79  *</td>
</tr>
<tr>
<td>LONG2 = time of service / potential</td>
<td>.93</td>
<td>.91</td>
</tr>
</tbody>
</table>

* = significant at the .10 level  
** = significant at the .01 level  
LONG = Length at initial position divided by 52 (months between 1/94 and 4/98)  
LONG52 = Length of service at BOC (in all positions) divided by 52  
LONG2 = Length of service at BOC divided by potential # months (between start and 4/98)

Table 23. Self-reported satisfaction variable scores comparing lowest and highest scores for 
technical writers, BOC staff, and the group as a whole

<table>
<thead>
<tr>
<th></th>
<th>Lowest score</th>
<th>Highest score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical writers</td>
<td>Prior CS experience</td>
<td>Writing</td>
</tr>
<tr>
<td>BOC employees</td>
<td>Initial training</td>
<td>Problem solving</td>
</tr>
<tr>
<td>Group (both TW &amp; BOC)</td>
<td>Hoover (work site)</td>
<td>Problem solving</td>
</tr>
</tbody>
</table>
The results also indicate that prior child support experience (for technical writers), initial training (for BOC employees) and the Hoover work site have the least effect. Differences in scores on satisfaction are not significant. Both groups of employees are nearly equal on self-reported levels of satisfaction.

Table 24 displays a comparison of satisfaction and performance scores for technical writers, the BOC staff, and the group as a whole. Results indicate that average ratings of performance are higher for state employees. A caution when examining this result is that ISU technical writers are the more recent hires, who normally would not have the benefit of years of experience in the Bureau and may have only been evaluated once since being hired.

<table>
<thead>
<tr>
<th></th>
<th>Technical writers</th>
<th>BOC</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction score</td>
<td>8.06</td>
<td>7.94</td>
<td>8.00</td>
</tr>
<tr>
<td>Performance score</td>
<td>3.72</td>
<td>4.29 **</td>
<td>4.00 *</td>
</tr>
</tbody>
</table>

\* = significant at the .10 level
\** = significant at the .01 level

This researcher perceives that it is an important part of an individual’s growth as an employee to experience and learn from performance evaluations.

This researcher also perceives that a clearer job description should be designed for the technical writer position. Since technical writers do more than write, the interview process should also contain some element that measures their technical abilities, problem-solving abilities, and organizational skills. The required summary should be scored in a way to more
accurately depict the individual’s grasp of the importance of the six areas (communication skills, computer skills, team player ability, problem-solving skills, organizational skills, and agency role knowledge). It may be important to focus training on these areas which would serve to increase staff commitment to their work, improving persistence, satisfaction, and performance.

Table 25 displays the variables that showed a significant or highly significant relationship with the persistence variables as well as with satisfaction and performance.

**Table 25. Variables showing significant correlation with persistence, satisfaction, and performance**

<table>
<thead>
<tr>
<th>Variable</th>
<th>LONG</th>
<th>LONG52</th>
<th>LONG2</th>
<th>Satisfaction</th>
<th>Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>* (TW)</td>
<td>* (TW)</td>
<td></td>
<td>* (both &amp; BOC)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td>* (TW)</td>
<td></td>
</tr>
<tr>
<td>CS Experience</td>
<td></td>
<td></td>
<td>* (both)</td>
<td>* (TW)</td>
<td></td>
</tr>
<tr>
<td>Other Experience</td>
<td>**(both &amp; TW)</td>
<td></td>
<td>* (both)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interview</td>
<td>**(both)</td>
<td>* (both)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>References</td>
<td>*(BOC)</td>
<td>*(BOC)</td>
<td>*(BOC)</td>
<td>*(both &amp; BOC)</td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>*(both)</td>
<td>*(both)</td>
<td>*(both)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* = significant at the .10 level  
** = significant at the .01 level  
LONG = Length at initial position divided by 52 (months between 1/94 and 4/98)  
LONG52 = Length of service at BOC (in all positions) divided by 52  
LONG2 = Length of service at BOC divided by potential # months (between start and 4/98)  

The relationship between child support experience and satisfaction for the group as a whole is actually a negative correlation which means that the more child experience an individual has the less satisfied he or she is. This may be because of the nature of the work in what is referred to as “Central Office.” Previous experience most often involves field office experience dealing directly with customers. Work in Central Office is very different,
involving almost no customer contact. It may be that individuals with field experience miss the customer interactions and feel a lower sense of satisfaction for that reason.

Since the *reference score* correlated highly with *persistence* and *performance* for BOC staff, it may be important to look at these scores more closely if the Bureau tries to predict an individual’s potential length of tenure and job *performance*. There was a significant correlation with all three versions of the *persistence* variable, which strengthens its applicability, and with *performance* for the group as a whole and for BOC employees.

Lower *interview scores* and lower *writing exercise scores* were exhibited by those participating in the group interview. Improvements in the group interviewing process may serve a dual purpose. They may result in higher scores in these areas, plus they may improve the quality of the process, providing a more positive experience for the individuals being interviewed.

It is vital that the Bureau foster the relationships between the supervisor and staff members. This was seen as one of the most important factors to *persistence, satisfaction, and performance*.

The results of this study have implications for those aspiring to leadership positions both within the ISU community and within the Bureau of Collections. It is important for leaders to understand the connection between environmental fit for students and higher education institutions and for employees within their organizations (see Holland, 1973, and Boerlijst & Meijboom, 1989). It is also important for leaders to understand that an employee needs time to adjust to the new environment, learn the details of the new assignment, and find a niche. This is very similar to Chickering’s (1969) vector model of college student
development which basically states that students go through various stages of development as they grow and mature in college. These vectors are developing confidence, managing emotions, developing autonomy, establishing identity, freeing interpersonal relationships, developing purpose, and developing integrity. Several of these stages apply to new employees who must master new challenges in a new environment.

Research on predictors cited in Chapter II (especially Klimoski, 1993) stress the importance of maintaining the integrity of predictors and that practice must inform theory. In this study it was apparent that the highly organized procedure developed by the Bureau helped make the selection process better since it was more consistent and results were more easily compared.

The results of this study also may impact students and instructors as they prepare for interviews for positions after graduation. The variables studied are skills, qualities, and background statistics that are used by many companies to hire individuals for their firms (see Offermann, and Gowing, 1993, for a discussion of personnel selection in the future). It may be even more important for the higher education program at Iowa State University to include discussions and projects related to preparing for interviewing, following up, and assessing how well an organization “fits” with the individual’s own style.

Another possible outcome of this study could be institution of a personality or typology indicator (see Myers, 1980 and Holland, 1973) to assist management in their quest to help individuals realize their potential while contributing to the success of the organization.
Recommendations for Future Research

Research questions could be formulated as logical extensions of the results of this study as well as from questions and concerns of the Bureau of Collections and ISU Child Welfare Project management. Following are some questions that could be used to conduct future studies:

- What measurable effect do regular performance evaluations have on an individual’s performance?

- What are the top five work values and needs of technical writers? Of state Bureau employees? Are those work values and needs different from other ISU employees at the same level? Are those work values and needs different from other Department of Human Services employees at the same level?

- What effect does the team structure at the Bureau of Collections have on performance? How does it compare to the performance of individuals at similar levels in other departments at ISU and at the Department of Human Services that do not have a team structure?

- What effect does workload have on individual’s persistence, satisfaction, and performance and what other methods could be implemented to help the bureau perform necessary tasks more easily?

- What effect do extensive training activities have on an individual’s performance? Are the effects different for other ISU employees at the same level? Are they different for other Department employees at the same level?
• What effect does having the current IPERS retirement program have on individuals' persistence in the Department. What effect would a retirement program on par with TIAA/CREF have on persistence?

• Further investigate the value of checking references during the hiring process for individuals in other similar contracted positions within state government or at Iowa State University.

• What effect does increased training in problem-solving have on individuals' performance? Is it different for technical writers and BOC staff? Is it different for other ISU employees at the same level? Is it different for other Department of Human Services employees at the same level?

• What effect do continuous quality improvement methods have on individuals’ persistence, satisfaction, and performance?

The hiring process for technical writers through Iowa State University’s Child Welfare Project works well in that it attracts many highly-qualified individuals. This researcher found that the process is very organized and generally effective in identifying people whose skills fit with the requirements of the position. The process, however, could use some improvements in key areas such as revision of the job description, expanding the scoring of the summary, and improving upon the writing exercise to more accurately reflect the type of writing that will be required. Another factor that may impact persistence, satisfaction, and performance, once the individual is hired, is the frequency of performance evaluations. While this researcher found no reason to discontinue the group interaction
activity for state Bureau employees, the process may need improvement, especially to make
the process more positive and meaningful to the interviewees.

The qualitative aspects of this study clearly could have been expanded upon to include
more individuals with follow-up questions and further exploration of key issues. However,
the present study did support some of the findings of the quantitative study and provided
further understanding of the climate, interactions, values, needs, strengths, and weaknesses of
the position and the Bureau.

Both ISU and BOC are organizations which must pay close attention to hiring
procedures for all employees. They must create communities that encourage learning, seeing
interrelationships, and interpreting patterns. They must recruit, hire, and retain individuals
who can understand and work within systems. Problem-solving ability is important for
technical writers at the BOC—as well as in nearly every other organization in the future. If
dramatic changes are made in the ways organizations are structured in the next century, large,
hierarchical organizations are likely to be ineffective and out of date. Sharing of information
and interpretations with a focus on values, invention, technology, and continual learning will
be important for organizations to survive much less thrive.

The future of reframed organizations as presented by Bolman and Deal (1991) is to
hold onto core values while developing elastic strategies. Senge (1990) describes a learning
organization as more than a sum of its parts and his techniques encourage employees to see
the forest as well as the trees. Developing accurate, insightful, legal, and thorough hiring
practices to hire the right individuals to fill positions will start organizations on a clear path to
success in an environment vastly different from today's.
APPENDIX A

NOTICE OF VACANCY

IOWA STATE UNIVERSITY

Personnel Office, 16 Beardshear

POSITION TITLE: Human Service Specialist II - Technical Writer (5 positions)
EMPLOYING UNIT: Human Development & Family Studies

TYPE OF APPOINTMENT:

Base: P 12 mo. XX 9 mo. Other Full-time XX Part-time
(A, B or P)

A or B base: Tenure-track Adjunct Teritory
(Fraction)

P base: Pay Grade P14 Continuous Term XX Temporary
(Ending date) 9/30/01
(Ending date)

Special Conditions: Positions are located in Des Moines. Continuation beyond September 30, 2001 depends on contract renewal

POSITION DESCRIPTION (brief description of duties and responsibilities):
Under general supervision, work as part of a team on analysis and development of policies and procedures for Child Support Recovery. This job includes a wide variety of writing assignments and styles, including writing the Department of Human Services Employee’s Manual for the Child Support Recovery Unit and developing data processing specifications to assure the mainframe computer system meets Federal requirements. Tasks include analysis of how each step in the new data processing systems fits within Federal and State regulations and determining if the new enhancements are in compliance with the regulations. Written policies and procedures are based on Federal regulations, the Code of Iowa and the Iowa Administrative Code.

Two of these positions will focus on Child Support’s receipt and distribution system. Candidates wishing to apply for these two positions should possess a degree or a strong background in economics.

QUALIFICATIONS:
Required: Bachelor’s degree in Human Services, Public Administration or related field with an emphasis in writing, researching, and interpreting policies. Must have excellent verbal and written communication skills and the ability to work as part of a team. Must have at least three years experience in compiling, reporting, examining and/or editing technical materials.

Preferred:

PROPOSED START DATE: As soon as possible after interview.

SALARY: Minimum starting salary is $28,106; salary commensurate with experience and qualifications.

APPLICATION INSTRUCTIONS: Send letter of application, resume, and names and phone numbers of three references to: Karen Linnan, Project Manager, HD & FS, Iowa State University, 107 Andrews House, Ames Iowa, 50011.

APPLICATION DEADLINE:
or until position is filled.

(See required advertising conditions on reverse side)

Iowa State is an Equal Opportunity/Affirmative Action Employer
Required Minimum Advertising Conditions:

_____ All faculty tenure track/adjunct positions and continuous P&S positions at pay grade 17 or above - advertise nationally for a minimum of 30 days from the Sunday following approval of this Notice of Vacancy.

_____ Continuous P&S positions below pay grade 17 or P&S term position - advertise locally/regionally for a minimum of 15 days from the Sunday following approval of this Notice of Vacancy.

_____ Temporary appointment (usually less than one year due to late notice of funding or unexpected vacancy) - 10 day minimum advertising.

Definitions:
Continuous - position is expected to exist for an indefinite period and the university is committed to employing the person in that position on a continuous basis, subject to conditions of performance and stated dismissal rules or layoff.
Term - position not expected to exist beyond a specified date; project completion date and continuous funding cannot be anticipated.
Temporary - short term appointment, usually made to meet an emergency within a department; ordinarily no longer than one year, renewable only under special circumstances.

New Position:
Source of Funds
If P&S, has the position been classified? Yes_______ No_______

Existing Position:
Budget Page_____ Position No._______ Account No._______
Name of Last Incumbent

If this position require start up costs: Yes_______ No_______
If yes:
What are the estimated costs?
What is the funding source?
What are the possible new or renovated space needs?

Attach a detailed explanation on a separate sheet of paper if necessary.

APPROVED:

__________________________________________ Date
DEO, Director, Unit Head

__________________________________________ Date
Dean or Director

__________________________________________ Date
Vice President or Provost

FOR PERSONNEL OFFICE USE ONLY (approved copy returned to employing unit).


12/93 Pers
# APPENDIX B

## TECHNICAL WRITER APPLICATION SCREENING CHART

Name: ___________________________  Date: ____________

<table>
<thead>
<tr>
<th>Category</th>
<th>Points Allowed</th>
<th>Points Received</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EDUCATION:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA</td>
<td>4-5</td>
<td></td>
</tr>
<tr>
<td>AA</td>
<td>2-3</td>
<td></td>
</tr>
<tr>
<td>HS</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EXPERIENCE/SKILLS:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Support</td>
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<td></td>
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<tr>
<td>Dept. of Human Services Experience</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Other Human Services Experience</td>
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<td></td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy Analysis/Dev./Compliance</td>
<td>0-4</td>
<td></td>
</tr>
<tr>
<td>Technical Writing Experience</td>
<td>0-4</td>
<td></td>
</tr>
<tr>
<td>System Dev. Experience</td>
<td>0-4</td>
<td></td>
</tr>
<tr>
<td>PC Knowledge</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WRITING EXERCISE:</strong></td>
<td>0-4</td>
<td></td>
</tr>
<tr>
<td><strong>INTERVIEW/INTERPERSONAL SKILLS:</strong></td>
<td>0-4</td>
<td></td>
</tr>
<tr>
<td><strong>LETTER/RESUME/SUMMARY:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Letter</td>
<td>0-2</td>
<td></td>
</tr>
<tr>
<td>Resume</td>
<td>0-2</td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td>0-4</td>
<td></td>
</tr>
<tr>
<td><strong>Sub-total</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name of person who completed this form:

______________________________
1) Explain need for position
   • Federally-mandated project to enhance our computer system (APD)
   • Receive federal appropriations, so we are held to a strict series of federal regulations and requirements
   • Regular reimbursement rate is 66%. We are receiving 90% reimbursement for this project through 9/95
   • Current contract runs through September 30, 2001

2) CSRU overview
   • State agency (bureau) within the Department of Human Services
   • Establish and enforce child support orders for persons receiving public assistance and for persons who apply for our services. Also provide interstate services.
   • Have approximately 410 state, county and contract staff in 19 field offices, handling 153,000 cases

3) Provide organizational overview of central office (Bureau)
   a. Policy Supervisor
      • Supervision of policy teams (users)
      • Policy guidance and overall coordination
      • Priority setting, coordination of work flow

   b. PP3
      • Responsibility for policy/system development for specific areas
      • Coordinate and direct team’s work

   c. PP2s and Tech Writers
      • Provide job description
      • Assist in all areas of policy and system development
      • Includes research, development of rules, writing user requirements and manual, designing and entering forms, testing of system

   d. Pit Crews-Field Committees
      • Co-chairs are PP3’s and RAs
      • Members include supervisors, AAG, ISU trainer. Some teams have lead workers and MA3’s
      • Role of committees
e. Support Staff

- Secretary to assist in monitoring, tracking and reporting for APD purposes
- Clerk-typist to assist APD teams in preparing and distributing materials, revising forms and providing general support

4) Benefits

- Salary is $28,668 paid monthly-P14 pay grade
- Health, dental, life insurance, retirement plan
- 16 hours vacation, 12 hours sick leave per month
- Overtime is sometimes necessary. Would you have problems working overtime?

5) Training (3-6 Months)

- New worker training
- Establishing order, applying CS guidelines
- Enforcing orders
- Microsoft Word
- Possibly some field training

6) Interview Questions

7) Request references and get signature on Release of Info

8) Explain when decision may be reached—that summary, interview, written exercise and references will all be scored and considered

9) Questions or anything to add?

10) Explain written exercise (attachment)

- Ability to organize material
- Use correct grammar and construction
- Write clearly, concisely and at level of person receiving response
- Note: Send/take person to vacant office, explain where to turn in materials
APPENDIX D

APPLICANT QUESTIONNAIRE

Name_________________________ Date_________________________

Position: Tech Writer

1. What do you feel are the major strengths you could bring to this position?

2. Describe the behavior of your “ideal” supervisor in relationship to you and to others.

3. In this position, you may encounter multiple concurrent assignments and conflicting priorities. Generally, can you explain how you would handle these situations? Please give an example.

4. In what areas would you like to see improvements in your work performance? If someone would describe your work performance, what areas of improvement would be recommended?
5. Describe a decision or problem you have encountered that you have had to resolve. If your efforts were not successful, what did you learn from the experience? What is your problem solving process?

6. Describe your experience in working as part of a team. What did you like or dislike about it?

7. How do you handle situations involving difficult persons?

8. Why are you interested in this position and what would expect to gain?
9. You have presented a recommendation about an issue that deeply concerns you. Your recommendation is not followed, and an option that you disagree with is pursued. How do you handle the situation?

10. a. What brings you satisfaction in the workplace?

b. Conversely, what causes you stress on the job?

11. a. Are there any special accommodations that might be needed in order for you to do this job? If the answer is yes, please explain.

b. If you were hired for this position, when would you be available to start?
APPENDIX E

WRITTEN EXERCISE

Date: ______________________

Name: __________________________

Position: Technical Writer
This task involves reading background material and using it to draft a response to a letter.

Purpose of Task
Your response to the letter will be used to evaluate your ability to comprehend technical material and apply it. Your written response will demonstrate your ability to organize material, to use correct grammar and construction, to write in a clear, concise, and complete manner, and to use language which is geared to the comprehension level of the person who will receive it.

Background Information
Income withholding is one of the enforcement tools used by the child support recovery unit in collecting support. Under state law, income withholding is also referred to as “assignment” or “assignment of income”. Attached is a copy of the current state law covering income withholding, Iowa Code Chapter 252D.

Also attached is a letter from a noncustodial parent who owes support. The letter is addressed to Charles Palmer, the Director of the Department of Human Services. In the letter, the noncustodial parent complains about “the system” and about support payments being withheld from his wages.

Assignment
Read the attached materials and draft a response to the letter for Director Palmer’s signature.

In writing your response, use chapter 252D to address concerns about income withholding. If your knowledge of income withholding extends beyond chapter 252D, confine your response to information contained in chapter 252D.

NOTE: Chapter 252D contains reference to federal law. The reference is 15 U.S.C. section 1673(b). For purposes of this exercise, assume that 15 U.S.C. section 1673(b) limits the amount that can be withheld to 50% of income after taxes.

Address concerns about “the system” in the manner you feel in most appropriate.

You should complete this exercise within one hour. Upon completion give your materials to __________________________.
APPENDIX F

WRITTEN EXERCISE SCORING

Score Range  Scoring Parameters

1.  0-7 points  Writing Mechanics - spelling, grammar, syntax, etc.
   (deduct 1 point for each error)

2.  0 - 9 points  Organization and Clarity - award up to 3 points for each of the
   following:

   a. Clear and complete statement of issue(s)
   b. Orderly flow of information from beginning to end
   c. Concise use of language

3.  0 - 9 points  Substance - award up to 3 points for each of the following:

   a. Response conveys importance of issues presented
   b. Appropriate tone
   c. Appropriate use of language for intended audience
REFERENCE – TECHNICAL WRITER

Candidate: ________________________________

Reference: ________________________________

1. How long, and in what capacity, have you known ________________?

2. Does he/she require general or close supervision?

3. a) What do you feel this individual’s strengths are as an employee?
   
   b) In what areas could this person improve his/her performance on the job?

4. a) We are interviewing for a technical writing position. Did he/she have any writing responsibilities while working for you?
   
   b) What type of writing?
   
   c) In general, what % of writing was required?
5. a) Was he/she involved in problem solving or analytical work?
   
   b) Can you give an example of the type?
   
   c) Can you estimate a % required?

6. On a scale of 1 to 10 (with 10 being the high score), rate the OVERALL quality of his/her work.

   ________ (score). What is the reason you gave this score?

7. On a scale of 1 to 10 (with 10 being the high score), rate his/her willingness to do what it takes to get the job done -- such as being resourceful, consulting with others when necessary, working extra hours.

8. Why did he/she leave employment. Would you rehire?

9. How was his/her attendance record?
APPENDIX H

TECH WRITER QUESTIONNAIRE FOR PERSONNEL SELECTION STUDY

Please rate your experience with the hiring of technical writers at the Bureau of Collections by circling an appropriate numerical score between 1 and 10 for the following questions. Please comment as you desire.

1. Did the fact that the technical writer position was an Iowa State University position affect your initial interest in the position? For example, would you have applied had it been advertised as a DHS position?

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No, I definitely would not have applied</td>
</tr>
<tr>
<td>5</td>
<td>I might have applied</td>
</tr>
<tr>
<td>10</td>
<td>Yes, I definitely still would have applied</td>
</tr>
</tbody>
</table>

2. What effect did the requirement to summarize your experience and education in relation to six critical areas have on your interest in this position?

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I didn’t think it was necessary, but I did it anyway.</td>
</tr>
<tr>
<td>5</td>
<td>I didn’t think negatively and did it since it was required.</td>
</tr>
<tr>
<td>10</td>
<td>I thought it was a good technique to gather information about applicants and I did it willingly.</td>
</tr>
</tbody>
</table>

3. How well do you think the items on the required summary reflect the scope of the position?

<table>
<thead>
<tr>
<th>Skill</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication skills</td>
<td>1......2......3......4......5......6......7......8......9......10</td>
</tr>
<tr>
<td>Computer skills *</td>
<td>1......2......3......4......5......6......7......8......9......10</td>
</tr>
</tbody>
</table>
Problem-solving skills 1 2 3 4 5 6 7 8 9 10
Team player ability 1 2 3 4 5 6 7 8 9 10
Organizational skills 1 2 3 4 5 6 7 8 9 10
Agency role knowledge 1 2 3 4 5 6 7 8 9 10

* not included prior to 9/94

4. How well did the job description reflect the scope of the position?

1 2 3 4 5 6 7 8 9 10

5. During the interview, did the questions you were asked effectively draw out required information from your background?

1 2 3 4 5 6 7 8 9 10

6. How well do you feel your performance on the writing exercise predicted how well you performed the writing duties of this position?

1 2 3 4 5 6 7 8 9 10

7. If you left the technical writing position and the department, list the top three reasons you left.

1. 
2. 
3. 
8. If you stayed in the department but left the technical writer position, list the top three reasons you left.

1. 
2. 
3. 

9. How effective do you think the selection process is in identifying skills needed to perform the duties of a technical writer at BOC?

1  2  3  4  5  6  7  8  9  10

10. Rate your satisfaction with the position of technical writer.

1  2  3  4  5  6  7  8  9  10

11. Are you:
   Still a technical writer       Y   N
   Not a technical writer but employed by DHS       Y   N
   Employed by the state but not DHS or ISU       Y   N
   Employed by a firm outside state government       Y   N

continued on next page
12. Rate from 1 to 10 your perception of how important the following variables were or have been to your persistence, satisfaction, and performance as a technical writer.

<table>
<thead>
<tr>
<th></th>
<th>persistence</th>
<th>satisfaction</th>
<th>performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application procedures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The BOC interviewer(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISU employee status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working at Hoover</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BOC orientation process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISU orientation activities</td>
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<td></td>
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</tr>
<tr>
<td>Initial training</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Supervisor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>College major</td>
<td></td>
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<td></td>
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<tr>
<td>Prior computer experience</td>
<td></td>
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<tr>
<td>Oral communication skills</td>
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<td></td>
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<tr>
<td>Writing skills</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Prior teamwork experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enjoyment of teaming</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Problem-solving skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational skills</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prior understanding of the agency role</td>
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<td></td>
</tr>
<tr>
<td>Prior child support experience</td>
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<td></td>
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<tr>
<td>Prior human services experience</td>
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<td></td>
</tr>
<tr>
<td>Prior technical writing experience</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Team leader(s)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX I

INTERVIEW QUESTIONS—TECH WRITER

1. Did you have a performance evaluation during the time you were or have been a technical writer?

2. Was it a helpful experience? Explain why or why not.

3. Did you have experience in a field office as part of your training? How useful was it and how does it relate to your persistence, satisfaction, and performance?

4. What was your initial reaction to the Bureau? Your interviewer(s)? Was this person enthusiastic? Credible? Informative?

5. Was your initial application/interview a realistic job preview?

6. Do you like working as part of a team? Do you think the team structure at BOC is an effective means for getting the work done? Why or why not?
7. What are your top three work needs and values?
   1. 
   2. 
   3. 

8. Are these work needs met by BOC? How?

9. How would you characterize the organizational climate at BOC?

10. Describe your employee interactions at BOC. How is this related to your satisfaction with the job, your job performance, and your persistence?

11. Describe the relationship between you and your team leader(s). How is this related to your satisfaction with the job, your job performance, and your persistence?

12. Describe the relationship between you and your supervisor. How is this related to your satisfaction with the job, your job performance, and your persistence?

13. Describe the relationship between you and the bureau chief. How is this related to your satisfaction with the job, your job performance, and your persistence?
APPENDIX J

INFORMATION FOR REVIEW OF RESEARCH INVOLVING HUMAN SUBJECTS

Information for Review of Research Involving Human Subjects
Iowa State University

1. Title of Project: Predictors of Satisfaction, Persistence, and Job Performance for Technical Writers

2. I agree to provide the proper surveillance of this project to insure that the rights and welfare of the human subjects are protected. I will report any adverse reactions to the committee. Additions to or changes in research procedures after the project has been approved will be submitted to the committee for review. I agree to request renewal of approval for any project continuing more than one year.

Principal investigator: Mary Loven 03/01/98 Signature: Mary Loven
Department: Professional Studies Campus address: 809 SE Innsbruck, Ankeny, IA 50021 Phone number to report results: 515-281-8377 (day) 515-965-1531 (eve)

3. Signatures of other investigators:

4. Principal investigator(s): (check all that apply) Faculty
   Staff
   Graduate Student
   Undergraduate Student

5. Project: (check all that apply): Research
   Thesis or dissertation
   Class Project
   Independent Study (490, 590, Honors project)

6. Number of subjects: (complete all that apply) 19 # Adults, non-students
   0 # ISU students
   0 # Minors under 14
   0 # Minors 14-17
   20 comparison group

7. Brief description of proposed research involving human subjects: (See instructions, item 7.)

   The proposed research involves identifying the most significant predictors of satisfaction, persistence, and job performance of the 19 individuals who have been hired as technical writers at the Bureau of Collections, Iowa Department of Human Services. The Bureau contracted with Iowa State University to advertise and employ these individuals who are university employees located at the BOC office in the Hoover Building, Des Moines. ISU advertised the position, collected the applications and resumes, and forwarded them to BOC. BOC then contacted the individuals, asked them to summarize their background in relation to six skill areas, and interviewed potential hires. After the interview and writing exercise were completed, BOC made the hiring decision and informed ISU which individuals it wanted ISU to hire. Then ISU hired the individuals and provided the salary and benefits, placing them in the BOC office. 20 BOC (state) employees will be studied as a comparison group.
Variables to be studied include college major, technical writing background, teamwork experience, computer knowledge, problem solving ability, child support or human services experience, organizational skills, resume, application letter, writing exercise score, and summary completion score.

Data collection methods include collecting scores on application materials, interviews, writing exercises, and references. Technical writers will be surveyed, asking them to rate several variables. The policy and operations supervisors will be asked to rate each individual on several areas of job performance, including writing skill, organizational ability, problem solving, computer skill, ability to work within a team, and ability and interest in developing the "big picture" viewpoint.

(Please do not attach research, thesis, or dissertation proposals.)

8. Informed consent:  ☑ Signed informed consent will be obtained. (Attach a copy of your form.)
☐ Modified informed consent will be obtained. (See instructions, item 8.)
☐ Not applicable to this project.
9. Confidentiality of Data: Describe below the methods you will use to ensure the confidentiality of data obtained. (See instructions, item 9.) Information gathered from employee application materials will be identified only by an arbitrary number, not by name or social security number. Surveys will be identified only by that same number and that number will be removed once the data has been tabulated. Tape recordings will be erased upon completion of the dissertation.

10. What risks or discomfort will be part of the study? Will subjects in the research be placed at risk or incur discomfort? Describe any risks to the subjects and precautions that will be taken to minimize them. (The concept of risk goes beyond physical risk and includes risks to subjects' dignity and self-respect as well as psychological or emotional risk. See instructions, item 10.) There will be no risk or discomfort.

11. CHECK ALL of the following that apply to your research:

- [ ] A. Medical clearance necessary before subjects can participate
- [ ] B. Administration of substances (foods, drugs, etc.) to subjects
- [ ] C. Physical exercise or conditioning for subjects
- [ ] D. Samples (blood, tissue, etc.) from subjects
- [ ] E. Administration of infectious agents or recombinant DNA
- [ ] F. Deception of subjects
- [ ] G. Subjects under 14 years of age and/or
- [ ] H. Subjects in institutions (nursing homes, prisons, etc.)
- [ ] I. Research must be approved by another institution or agency (Attach letters of approval)

If you checked any of the items in 11, please complete the following in the space below (include any attachments):

- Items A–E: Describe the procedures and note the proposed safety precautions.
- Items D–E: The principal investigator should send a copy of this form to Environmental Health and Safety, 118 Agronomy Lab for review.
- Item F: Describe how subjects will be deceived; justify the deception; indicate the debriefing procedure, including the timing and information to be presented to subjects.
- Item G: For subjects under the age of 14, indicate how informed consent will be obtained from parents or legally authorized representatives as well as from subjects.
- Items H–I: Specify the agency or institution that must approve the project. If subjects in any outside agency or institution are involved, approval must be obtained prior to beginning the research, and the letter of approval should be filed.

Although the technical writers are ISU employees, application materials and evaluations are kept on site at the Bureau. Some of the individuals who were hired as technical writers are no longer in that position. Some are state employees employed by BOC. Some are state employees employed by other departments. Others have taken jobs in the private sector. I have received approval from the state to access information from files kept by the state. I also plan to secure a respondent consent form from each individual.
Checklist for Attachments and Time Schedule. The following are attached (please check):

12. ☒ Letter or written statement to subject indicating clearly:
   a) the purpose of the research
   b) the use of any identifier codes (names, numbers), how they will be used, and when they will be removed (see item 17)
   c) an estimate of time needed for participation in the research
   d) if applicable, the location of the research activity
   e) how you will ensure confidentiality
   f) in a longitudinal study, when and how you will contact subjects later
   g) that participation is voluntary; nonparticipation will not affect evaluations of the subject

13. ☒ Signed consent form (if applicable)

14. ☒ Letter of approval for research from cooperating organizations or institutions (if applicable)

15. ☒ Data-gathering instruments

16. Anticipated dates for contact with subjects:
   First contact: March 15, 1998   Last contact: May 15, 1998

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual tapes will be erased: July 1, 1998

18. Signature of Departmental Executive Officer
   [Signature]
   3-17-98
   Professional Studies in Education

19. Decision of the University Human Subjects Review Committee:
   ☒ Project Approved   ☐ Project Not Approved   ☐ No Action Required
   [Signature]
   (date)
APPENDIX K

PP2, PP3, MA3 QUESTIONNAIRE

Please rate the hiring practices at the Bureau of Collections by circling an appropriate numerical score between 1 and 10 for the following questions. Please comment as you desire.

1. How well do you think your interview for your current position uncovered your unique qualifications?

2. How important is the requirement to summarize experience and education in relation to the six critical areas of communication skills, computer skills, problem-solving skills, team player ability, organizational skills, and knowledge of agency role? (If this was not required when you interviewed, leave blank.)

   1 = It doesn't help identify potential interviewees.
   5 = No opinion
   10 = It works well and I think we should continue using it.

3. How well do you think the items on the required summary reflect the scope of the position?

   Communication skills
   Computer skills
   Problem-solving skills
   Team player ability
   Organizational skills
   Agency role knowledge

4. How well does the job description reflect the scope of the position?

   1 = It doesn't help identify potential interviewees.
   5 = No opinion
   10 = It works well and I think we should continue using it.
5. How effective is the group interaction scenario as a tool for interviewing individuals for your position? (Answer only if you experienced this type of interview for your position.)

1........2........3........4........5........6........7........8........9........10

6. How well do you feel performance on the writing exercise predicted how well you have performed the writing duties of this position?

1........2........3........4........5........6........7........8........9........10

7. If you left your position with BOC, but stayed with the department in another position, list the top three reasons you left.

1. ___________________________________________________________
2. ___________________________________________________________
3. ___________________________________________________________

8. If you left your position with BOC and left the department, but took a position with another state department or ISU, list the top three reasons you moved.

1. ___________________________________________________________
2. ___________________________________________________________
3. ___________________________________________________________

9. If you left your position with BOC, left the department, and left State employment, list the top three reasons you left.

1. ___________________________________________________________
2. ___________________________________________________________
3. ___________________________________________________________

10. How effective do you think the selection process is in identifying skills needed to perform the duties of your position at BOC?

1........2........3........4........5........6........7........8........9........10

11. Rate your satisfaction with your position at the Bureau of Collections.

1........2........3........4........5........6........7........8........9........10

12. How can the interview and selection process more effectively identify individuals who will perform the position well and who will stay with the Bureau?
13. What other factors may impact your persistence as a BOC employee?

14. Rate from 1 to 10 your perception of how important the following variables were or have been to your persistence, satisfaction, and performance as a BOC employee.

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<thead>
<tr>
<th>Factor</th>
<th>Persistence</th>
<th>Satisfaction</th>
<th>Performance</th>
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<tr>
<td>Application procedures</td>
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<tr>
<td>The BOC interviewer(s)</td>
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<td>Working at Hoover</td>
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<td>BOC orientation process</td>
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<td>Initial training</td>
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<td>Supervisor</td>
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<td>Team leader(s)</td>
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<td>College major</td>
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<tr>
<td>Prior computer experience</td>
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<tr>
<td>Oral communication skills</td>
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<td>Writing skills</td>
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<td>Prior teamwork experience</td>
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<td>Enjoyment of teaming</td>
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<td>Problem-solving skills</td>
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<tr>
<td>Organizational skills</td>
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<tr>
<td>Prior understanding of the agency role</td>
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<td>Prior child support experience</td>
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<tr>
<td>Prior technical writing experience</td>
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APPENDIX L

INTERVIEW QUESTIONS—BUREAU OF COLLECTIONS

1. Have you experienced a performance evaluation during the time you've worked at the Bureau of Collections? (For those who have left BOC, did you experience a performance evaluation during the time you worked there?)

2. Was it a helpful, meaningful experience?

3. Did you have experience in a field office as part of your training? How useful was it and how does it relate to your persistence, satisfaction, and performance?

4. What was your initial reaction to the Bureau? Your interviewer(s)? Was this person enthusiastic? Credible? Informative?

5. Was your initial application/interview a realistic job preview?

6. Do you like working as part of a team? Do you think the team structure at BOC is an effective means for getting the work done? Why or why not?

7. What are your top three work needs and values?
8. Are these work needs met by BOC? How?

9. How would you characterize the organizational climate at BOC?

10. Describe your employee interactions at BOC. How is this related to your satisfaction with the job, your job performance, and your persistence?

11. Describe the relationship between you and your team leader. How is this related to your satisfaction with the job, your job performance, and your persistence? (Team leaders, leave this question blank unless you worked on a team at BOC prior to becoming a team leader.)

12. Describe the relationship between you and your supervisor. How is this related to your satisfaction with the job, your job performance, and your persistence?

13. Describe the relationship between you and the bureau chief. How is this related to your satisfaction with the job, your job performance, and your persistence?
APPENDIX M

RESPONDENT CONSENT FORM

Purpose

The purpose of this investigation is to identify the predictive value of hiring practices for technical writers at the Bureau of Collections, Iowa Department of Human Services, Des Moines, Iowa. The investigator plans to gather basic data about methods of advertising the technical writer openings, application materials required, screening techniques, interview questions and scoring, writing exercise procedures and scoring, job offer procedures, orientation procedures, and evaluations.

One aspect of the study involves a comparison between the method of hiring technical writers with the method(s) of hiring other Bureau of Collections staff (specifically, Program Planner 2’s and 3’s and Management Analyst 3’s).

The nature of the study necessitates accessing the employment file for each individual involved in the study. Each individual will be asked to complete a survey which will take approximately 15 minutes. The investigator also plans to arrange 15-minute sessions with several individuals to ask questions regarding subjective impressions of the hiring and orientation practices for technical writers and for PP2’s, PP3’s, and MA3’s.

The principal investigator for this study is:
Mary Loven
809 SE Innsbruck
Ankeny, IA 50021
515-965-1531

The investigator is a graduate student in the Department of Professional Studies, College of Education, Iowa State University, pursuing a Ph.D. in Higher Education.

I, ________________________________, understand that:

1. The information obtained will be summarized for the purposes of writing a report for Bureau of Collections staff and for the completion of requirements for the Iowa State University research project.

2. The actual recordings and notes obtained in interviews and questionnaires will not be reviewed by anyone other than the investigator and the instructor.
3. The report will not contain any identifying information and it will protect my rights of privacy. During the data gathering phase, identifying information will be removed immediately upon tabulation of data.

4. My participation in this study is voluntary. I may withdraw at any time by speaking to the investigator; any information collected from me will not be used in the study.

I agree to participate in this research project according to the terms stated above. I understand my time commitment is minimal, involving only completion of a survey (which will take approximately 15 minutes) and an optional 15-minute interview.

Respondent signature _____________________________
Date _____________________________

I agree to conduct this research according to the terms stated above.

Investigator signature _____________________________
Date _____________________________
APPENDIX N

SUMMARY LETTER

Dear

You have notified Karen Linnan of Iowa State University of your interest in a Technical Writer position. The position is located in the Bureau of Collections, Hoover State Office Building, 5th floor, Des Moines, Iowa.

The person in this position will be involved in all areas of policy and system development for the child support recovery program. The most critical function of this position involves working as part of a team in the development and implementation of child support policy and automated procedures. Duties include conducting research, writing, and developing administrative rules, employees’ manual, and procedures in accordance with state and federal laws. This person will also write computer system requirements, test the system changes, and monitor them to ensure system certification requirements are met.

Selection for this position will be based on those candidates who most clearly demonstrate the following skills and attributes.

1. Verbal and written communication skills including clarity, coherence, and grammatical correctness; the ability to apply these skills in a variety of settings; and facility for communicating issues to policy decision makers.

2. Ability to develop and test computer system user requirements.

3. Problem-solving skills including identification of the problem and of further information needed, analysis of the information, identification of options, and recommendations for solutions.

4. Team player ability including listening skills, sensitivity, ability to reach consensus, and the ability to work cooperatively with others.

5. Organizational skills including the ability to prioritize and manage tasks to meet required time frames.

6. An understanding of the impact that an agency in the public policy arena has upon constituencies affected by child support policies and procedures.
If you are interested in being interviewed for this position, please submit:

1. A summary, not to exceed two typed pages, of your skills and experiences illustrating your ability to meet the performance levels suggested by each of the six key areas listed above. Mail, deliver or fax (515-281-8854) this summary to:

   Kris Smith
   Bureau of Collections
   Hoover State Office Building, 5th Floor SW
   Des Moines, Iowa 50319

2. This summary must be received in the above office by 3:30 p.m. on Thursday, October 1, 1998.

An up-to-date resume which identifies the positions you have held, the dates of those positions, and their respective duties. NOTE: You do not need to send a resume with your letter of application if you have already submitted one containing all of this information.

Applications will be screened and selected candidates will be scheduled for an interview. Please provide us with a day and evening telephone number. The interview process will take approximately two hours.

If you are no longer interested in this position, please return this letter with a note to that effect, or call Kris Smith, (515-281-8173).

The Department of Human Services is an Equal Opportunity/Affirmative Action Employer.

Sincerely,

Kris Smith
Bureau of Collections
REFERENCES


Patterson, J. and others. (1994). *Staff screening tool kit: keeping the bad apples out of your organization*. Non-classroom material. (ERIC Document Reproduction Service No. ED 379 091)


ACKNOWLEDGMENTS

Completing the requirements and preparing this dissertation has taken several years of work, both on my part and on the part of many friends, co-workers, ISU staff, and family members who've helped me by being supportive, helpful, and encouraging. I would be remiss if I didn't acknowledge the huge impact they have had on the completion of my program and this study. Thank you to the following:

- My family; friends, both personal and professional; and co-workers who have lent support and encouragement.

- The members of my committee: Dan Robinson, Larry Ebbers, Tom Thielen, Betty Stanley, Tahira Hira, and Marty Miller—thank you for your patience and your guidance.

- Susan Bergwall, Jim Hennessey, and Karen Linnan for encouraging me to pursue this study and for providing access I needed to gather data, both quantitative and qualitative.

- All 17 technical writers and 18 state BOC employees who participated in the study. Thank you for giving of your time and knowledge to make this study a reality.

- Marva Ruther, Marjorie Smith, and Judy Weiland for their unwavering helpfulness and assistance, especially to off-campus students such as I was.

- Sherril Hoel, Sharon Timm, and Char Cimino for helping me set goals and providing encouragement and support throughout.