



Determinants of intended job turnover in rural nurses
by Jean Elizabeth Ballantyne

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Nursing
Montana State University

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Abstract:

The premature turnover of registered nurses in hospital settings has serious consequences in terms of increased monetary costs and negative impacts on the care of patients. This exploratory descriptive study identified determinants that could influence a registered nurse's decision to leave a hospital job. Since the literature revealed studies reporting on turnover of nurses in urban hospitals, the target population for this study was registered nurses working in Montana community hospitals with fewer than 50 beds.

Using a survey research design, 220 questionnaires were mailed to nurses working in 15 randomly selected Montana hospitals having fewer than 50 beds. A total of 116 questionnaires were returned for a response rate of 53%. The results of a statistical lambda were used to determine that associations between the 16 independent variables (determinants) and the dependent variable (intent to leave) were insignificant. The sample was then categorized into three groups, leavers (n=18), undecideds (n=34), and stayers (n=64), based on responses to the intent to leave measure. Comparisons of groups means were made for the determinants using t-tests.

Determinants that showed significant differences in means between leavers and undecideds were role overload and promotional opportunity. Leavers indicated a higher degree of job demands and fewer promotional opportunities than did the undecided group. In comparing the leaver and stayer groups, five determinants of promotional opportunity, satisfaction, pay, distributive justice and nurse-physician relationships, were significant. Leavers indicated lower degrees of promotional opportunity, less job satisfaction, a lower perception of the adequacy of the pay, more unfairness on the job, and a lower quality relationship with physicians. Findings for the comparison of the undecided group and stayer group revealed that the undecided group reported a higher degree of job boredom, a lesser degree of being informed about the job, and greater job dissatisfaction than did stayers.

Results of this study indicate that nurse retention efforts begin by increasing job satisfaction, providing promotional opportunities, promoting fairness on the job, promoting equitable work loads, and promoting adequate pay for the rural nurses.

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of

Master of Nursing

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This thesis has been read by each member of the thesis committee and been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency, and is ready for submission to the College of Graduate Studies.

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VITA

Jean Elizabeth Ballantyne was born the daughter of Ben and Elizabeth Brownfield on September 1, 1948. She spent her youth on the family ranches in eastern Montana, graduating from Dawson County High School in 1966. She received her Bachelor of Science in Nursing from Montana State University College of Nursing in 1970.

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ABSTRACT

The premature turnover of registered nurses in hospital settings has serious consequences in terms of increased monetary costs and negative impacts on the care of patients. This exploratory descriptive study identified determinants that could influence a registered nurse's decision to leave a hospital job. Since the literature revealed studies reporting on turnover of nurses in urban hospitals, the target population for this study was registered nurses working in Montana community hospitals with fewer than 50 beds.

Using a survey research design, 220 questionnaires were mailed to nurses working in 15 randomly selected Montana hospitals having fewer than 50 beds. A total of 116 questionnaires were returned for a response rate of 53%. The results of a statistical lambda were used to determine that associations between the 16 independent variables (determinants) and the dependent variable (intent to leave) were insignificant. The sample was then categorized into three groups, leavers (n=18), undecideds (n=34), and stayers (n=64), based on responses to the intent to leave measure. Comparisons of groups means were made for the determinants using t-tests.

Determinants that showed significant differences in means between leavers and undecideds were role overload and promotional opportunity. Leavers indicated a higher degree of job demands and fewer promotional opportunities than did the undecided group. In comparing the leaver and stayer groups, five determinants of promotional opportunity, satisfaction, pay, distributive justice and nurse-physician relationships, were significant. Leavers indicated lower degrees of promotional opportunity, less job satisfaction, a lower perception of the adequacy of the pay, more unfairness on the job, and a lower quality relationship with physicians. Findings for the comparison of the undecided group and stayer group revealed that the undecided group reported a higher degree of job boredom, a lesser degree of being informed about the job, and greater job dissatisfaction than did stayers.

Results of this study indicate that nurse retention efforts begin by increasing job satisfaction, providing promotional opportunities, promoting fairness on the job, promoting equitable work loads, and promoting adequate pay for the rural nurses.

CHAPTER 1

INTRODUCTION

Turnover among nurses in hospitals has profound ramifications economically and in terms of quality of patient care (Hinshaw, Atwood, Gerber, & Erickson, 1986). A review of previous turnover studies suggest that the majority of nursing staff turnover is voluntary and amenable to preventive action (Seybolt, Pavett, & Walker, 1978). Furthermore, the predictability of variables directly influencing intended turnover and actual turnover provide opportunity for management intervention to reduce premature turnover (Seybolt, 1986).

The researcher's experiences as a nursing director in two rural Montana hospitals has confirmed that recruitment and retention of nurses to work in rural hospitals is a problem area. This problem has been compounded during episodes of nurse shortages. Because nurses in rural hospitals need to have a broad repertoire of nursing skills to meet the needs of all general nursing areas, a high turnover rate in a rural hospital may mean having nurses that lack appropriate skills with the result being a potential decline of quality care.

The ability for nursing directors to predict actual turnover through knowledge of the determinants that influence intent to leave may allow for timely interventions to reduce actual turnover. Considering the rate of turnover, loss of productivity, and the monetary costs associated with nurse recruitment, it is clear that retention efforts in hospitals are needed.

The major intervening variable described in the literature that affects turnover is intent to leave (Curry, Wakefield, Price, Mueller, & McCloskey, 1985; Mobley, Griffeth, Hand, & Meglino, 1979; Weisman, Alexander, & Chase, 1981). Intent to leave is an employee's intention to leave an organization through consideration of another opportunity or the desire to leave a profession. Other variables of kinship responsibility, job satisfaction, and organizational commitment have indirect effects on turnover through intent to leave. With the evidence of this relationship, it could be concluded that intent to leave is a predictor of turnover.

Problem Statement

Most studies of nursing turnover have focused on urban centers. Although Hinshaw et al. (1986) did a comparison study of urban and rural communities, the rural sample included communities with up to 100,000 population. No studies have been reported on turnover in rural communities

in hospitals with fewer than 50 beds. Therefore, the purpose of this study was to discover determinants that would influence intended turnover of registered nurses in rural Montana hospitals with fewer than 50 beds.

Research Questions

In addition to the problem statement, related research questions addressed were:

1. At different age, nursing tenure, and nursing turnover levels, was there a difference in registered nurses' intent to leave the job?
2. Was there a relationship between increased kinship responsibility and the importance of opportunities that may be provided in a job?

Conceptual Model

The conceptual framework for this study was a causal model of turnover developed by Price & Mueller (1981). The purpose of such a model was to provide an explanation of some phenomena. The model attempts to explain turnover based on the large body of literature on turnover. The use of the label "causal model" is not intended to convey theoretical sophistication (Price & Mueller, 1981).

The model presents determinants and intervening variables associated with turnover. Price's original model defined the primary determinants of turnover as pay,

integration, instrumental communication, and centralization (Mobley et al., 1979). The first three determinants were considered positively related to turnover, while the fourth determinant of centralization was negatively related. Additional determinants were added as the model was utilized in further studies. The added determinants included routinization, distributive justice, promotional opportunity, role overload, professionalism, general training, kinship responsibility, and work unit size. As a path model, variables or determinants were linked by paths indicating a correlation between relationships. An attempt was made to capture the process by which determinants influenced turnover. Turnover was the dependent variable, with intervening variables being job satisfaction, organizational commitment, and intent to leave. The effects of the determinants on turnover were proposed to be mediated by the intervening variables. The model featured those determinants of turnover that were supported in the literature with varying degrees.

This model was chosen as a framework for this study because it was used as a framework in two turnover studies of nurses and other hospital employees. The first was an empirical study of nonsupervisory registered nurse turnover (Price & Mueller, 1981). The sample (N=1084) was drawn from seven hospitals with bed sizes ranging from 100 to 620. Secondly, the model of turnover was evaluated in a

study of hospital employee turnover in five Denver area hospitals (Price & Mueller, 1986). Three of the hospitals in this study had fewer than 100 beds. Registered nurses made up 75% of the sample (N=842). Results showed the variable of intent to leave as the primary determinant of turnover.

For the intent of this study, modifications of the model were made. The first modification substituted "intent to leave" for the dependent variable turnover. Secondly, the model was not utilized as a path model with path analysis. Therefore, the intervening variables of job satisfaction and organizational commitment were included as determinants. Ten determinants that were included in the original model remained: opportunity, routinization, centralization, instrumental communication, integration, pay, distributive justice, promotional opportunity, role overload, and kinship responsibility. Two determinants, involvement and traditional sex role values, were added at the recommendation of Price and Mueller (1986). A lack of involvement was proposed to be a determinant for nurses who leave the profession to do something else. Traditionalism in sex role values was proposed to increase turnover intentions. Two additional determinants, nurse-physician relationships and role isolation, were added based on the researcher's perceptions as a rural nurse administrator. Physicians in rural hospitals typically possess a great

deal of referent power which may negatively affect nurse-physician relationships. Role isolation was included because rural nurses often work alone without immediate peer support. All determinants were then correlated with the dependent variable intent to leave. While Price's model attempted to show causal relationships between variables, the use of the model in this study was to provide a framework in which to show associations between variables.

Definition of Terms

For the purpose of this study, the following terms were used. Definitions of determinants were similar to those in the turnover model (Price & Mueller, 1986).

Turnover--A voluntary separation of a nurse from the job.

Intent to Leave--A nurse's intention to leave the organization through consideration of another opportunity or the desire to leave the profession.

Intent to Stay--The likelihood that a nurse perceives continued employment with an organization will occur.

Determinants

1. Opportunity--The availability of alternative jobs.

2. Routinization--The extent to which a job is repetitive.
3. Centralization--The degree of concentration of power in an organization.
4. Instrumental Communication--The degree that information about the job is formally transmitted to nurses.
5. Integration--The extent to which the nurse has close friends on the job.
6. Pay--Money and benefits a nurse receives for services performed for an organization.
7. Distributive Justice--The relationship between job performance inputs and rewards given by the organization.
8. Promotional Opportunity--The extent of opportunity for upward movement or promotion in an organization.
9. Role Overload--The extent to which the job demands are excessive for the nurse.
10. Nurse-Physician Relationships--The degree of positive affect the nurse perceives in working with physicians on the job.
11. Role Isolation--The degree to which a nurse perceives role isolation as a negative phenomenon on the job. This measures the subjective reaction to role isolation, not the condition itself.

12. Involvement--The degree to which a nurse perceives he/she is involved with nursing as a profession.
13. Traditional Sex Role Values--The degree to which the nurse agrees with traditional sex role values.
14. Work Unit Size--The size of the work unit in the hospital where the nurse works.
15. Kinship Responsibility--The obligations the nurse has to family relationships.
16. Satisfaction--The degree to which the nurse likes and is satisfied with the job.
17. Commitment--The loyalty the nurse extends to the organization for which he/she works.

Assumptions

1. High turnover is a negative phenomenon.
2. Job tenure enhances performance and maintains the work force.
3. Turnover is an individual choice behavior.
4. Even the most able nurse is of little value to an organization if he/she leaves a position after only a short period of service.
5. Control over turnover is desirable.

Limitations

1. The sample was accessed through nursing directors who may have been reluctant to have nurses participate.
2. As key persons in accessing nurses, nursing directors may have conveyed bias to nurses.
3. No differentiation was made as to whether the rural hospitals chosen for participation in the study were stand-alone acute care facilities or combined hospital and nursing homes.
4. Each participating hospital may have varied in terms of organizational structure and the degree of centralization.
5. Life styles of nurses vary and could have an impact on responses to questions.

CHAPTER 2

LITERATURE REVIEW

A review of the literature pertinent to the turnover issue was done in an effort to gain insight into the possible determinants of turnover of registered nurses in the rural hospital setting. Turnover has been studied from both an individual and organizational perspective as well as with a combination of these two perspectives. Job satisfaction emerged as the most common variable that has been studied in relationship to turnover. A significant negative relationship was found between satisfaction and turnover (Price & Mueller, 1981).

Since job satisfaction was found to be an important determinant of turnover, it was addressed first; a review of other studies pertaining to the turnover issue follows. The studies were categorically reviewed and grouped according to each author's perspective, be it individual, organizational, or a combination of both. Terms as they relate to turnover were used as they appeared in each individual study.

Job Satisfaction in Relation to Turnover

Interest in the relationship of nurses' satisfaction with their work situation has been demonstrated as early as the late 1930's. A landmark study on job satisfaction in nursing was done in 1938 by Nahm (1940) at the University of Minnesota. Using the Hoppock Job Satisfaction Scale and Remmers' Attitude Toward an Occupation Scale, she studied a sample of 367 registered nurses (R.N.'s) who were graduates from nursing schools in Minnesota with regard to nursing satisfaction and job satisfaction. Questionnaires were mailed to nurses employed in institutions, public health, and private nursing. Variables of interest were educational activities, employer-employee relationships, working conditions, salaries, and opportunities for advancement. The results indicated that 60% of the nurses were highly satisfied, while 20% were dissatisfied, and 20% were neither satisfied or dissatisfied. No differentiations were given in regards to the various job settings and levels of satisfaction. Nahm concluded that the most important factors differentiating the groups were general adjustment of the individual, relationships with superior officers, family and social relationships, hours of work, income, and opportunities to advance and attain ambitions. Nahm indicated that only the best adjusted people should be educated as nurses; then as a group they

would have a higher degree of satisfaction, thereby causing personnel problems to disappear!

Job satisfaction appeared in the nursing literature again in the 1970's. An instrument was developed to measure six components of job satisfaction that would apply to all levels of health care workers (Slavitt, Stamps, Piedmont, & Haase, 1978). This instrument, a before-and-after measure of job satisfaction, measured effectiveness of administrative changes enacted to improve satisfaction. The questionnaire was completed by a convenience sample of nurses (N=786) in two urban hospitals. The nurses ranked items pertaining to job status, interaction, autonomy, organizational requirements, pay, and task requirements. Findings supported the conclusion that autonomy was the most important variable in relationship to job satisfaction. The outcome from this study was the provision of a tool for nursing directors to assess nursing staff concerns and thereby provide the opportunity to intervene and increase satisfaction.

In a study authorized by the American Academy of Nursing, a national sample of 41 "magnet hospitals" were studied to determine factors that enabled them to attract and retain professional nurses (McClure, Poulin, Sovie, & Wandelt, 1983). The hospitals ranged in size from 99 to 1,000 beds. Criteria for sample selection was developed by the American Academy of Nursing. Hospitals selected had an

85% retention rate with a predominantly professional staff providing care. Factors associated with satisfaction for staff nurses were examined through group interviews. Factors found to be most important in their decision to remain employed included flexible staffing scheduling, nurse-patient ratios that assure quality care, supportive nursing administration, opportunities for continuing education, clinical advancement opportunities, participative management, longevity benefits, and good nurse-physician relationships.

While not the major variable studied, job satisfaction repeatedly permeated the remaining literature review as a significant intervening variable in intended turnover as well as in actual turnover.

The Individual Perspective on Turnover

A job motivation study by Vroom (1964) found that turnover often results from inadequate rewards and incentives. Using theories of motivation and behavior, Vroom developed a framework for predicting turnover. Using a combination of Vroom's model and Maslow's hierarchy of needs (Maslow, 1970), McCloskey (1974) conducted a study of registered nurses in staff positions in hospitals in Chicago and San Francisco. The purpose of McCloskey's study was to rate in importance specific rewards and incentives that would keep staff nurses on the job. The

rewards desired by a nurse were based on his/her hierarchy of needs (Maslow, 1970). Results revealed that psychological rewards were more important than social or safety rewards in keeping nurses on the job; higher pay did not keep a nurse. Moreover, nurses wanted opportunities for educational and career advancement along with recognition from peers and supervisors.

Seybolt, Pavett, and Walker (1978) studied turnover of nursing staff in a 310 bed university hospital in Salt Lake City. The model for this study was Vroom's (1964) expectancy theory. A questionnaire was administered to 242 nurses, 80% of whom were registered nurses. Turnover data was collected one year after the survey. During that time, 89 of the total sample had left the hospital. The area of motivation was given as the most compelling reason for turnover; leavers had a significantly lower level of overall motivation to perform well.

A study of turnover by Michaels and Spector (1982) tested a causal model developed by Mobley et al. (1979). This model suggests that a number of possible mediating steps exist between job satisfaction and actual turnover. Mobley hypothesized that individual factors as well as organizational factors would lead to job satisfaction and commitment, or to alternative opportunities leading to intention of leaving and eventually to actual turnover. These steps were viewed as part of an individual's

withdrawal decision process. Participants in the study were 112 permanent employees of a community mental health center in Florida. Each participant completed a questionnaire. Six months later, a list of all turnovers indicated that 54 employees had terminated. This represented 30% of the total staff. Results of the study indicated a significant positive correlation between turnover and intention of turnover ($r=.41$). Intention of turnover was also strongly correlated with commitment and satisfaction ($r=.67$ and $.68$, respectively).

In a study of turnover of hospital nurses, Price & Mueller (1981) developed a causal model or set of interrelated propositions intended to provide a summary of what is known about determinants of turnover. The non-random sample ($N=1084$) of nonsupervisory registered nurses was drawn from seven general hospitals with bed size ranging from 100 to 620 in the north central United States. Major findings showed determinants which when increased resulted in reduced turnover. These determinants were commitment, job satisfaction, and the existence of kinship responsibility. However, manipulation of the variables in this model would not result in immediate control over turnover since the significant components of the model explained only 17% of the variance.

A five year study of job attrition for nurses in a 15 bed burn unit in Pennsylvania was done because of the

reportedly high staff turnover in this area of nursing (Bayley, 1981). From the inception of the burn unit, data was collected on attrition rates and factors which affected turnover and job satisfaction. At the termination interview, nurses were asked to specify their reason for leaving. A three page follow-up was sent to each participant in the sample of 63 nurses who had resigned their burn unit positions. This sample represented 61% of the staff hired in the five year period. Reasons for nurses leaving were categorized as either personal or job related. Thirty-eight percent of the leavers specified job related reasons for leaving the job, while 62% left for personal reasons.

Taylor and Covaleski (1985) examined the predictability of internal job transfers as well as turnover behavior from the perspective of nurses' career plans, work values, and job satisfaction. A random sample of 210 staff nurses was chosen from a large university hospital in the midwestern United States. Using a predictive design, questionnaires regarding nurses' demographic characteristics, job satisfaction, and work-related values were distributed. Findings were that values and career plans rather than job satisfaction discriminated between persons who intended to stay in the job, accept a transfer, or leave employment. Furthermore, findings supported the importance of

employees' expectations about future satisfaction as a major determinant of job movement.

The Organizational Perspective on Turnover

Weisman (1982) has suggested target areas for administrative intervention through the design of hospital nursing jobs. Her research was conducted at John Hopkins University in which 1200 full-time R.N.'s in staff positions were followed over a 12 month period and interviewed at regular intervals. Data about characteristics of the job units were also collected. The findings revealed a process by which the variables of autonomy, job satisfaction, and job hunting intervened between causal job related factors and turnover. Significant direct relationships were demonstrated through path analysis. For example, nurses perceived autonomy, through job related ability to make decisions about work conditions, as the strongest predictor of job satisfaction. Job satisfaction in turn was the strongest predictor of whether or not a nurse intended to begin searching for alternative job opportunities. Finally, searching for another job was a strong predictor of actual turnover. Findings clearly indicated that job characteristics, not personal attributes of the nurse, are points for appropriate intervention for nurse retention.

A study conducted by Lowery and Jacobsen (1984) investigated whether turnover among newly hired nurses eliminated poor performers. Participants for this study included 276 full-time nurses hired in a metropolitan hospital who stayed on the job for at least 1½ years. Data were collected from personnel files and included demographic data and the most recent performance evaluation. Nurses were rated by themselves and by their supervisors on a six point scale ranging from outstanding to unsatisfactory on ten factors. Out of the total sample, 92 (33.1%) had left the job. Eighteen of the leavers (19.3%) gave no reasons for leaving. Twenty percent gave reasons for dissatisfaction. Personal reasons for leaving were cited by 41.8%. Turnover-performance results showed small but significant differences in performances of leavers and stayers. Age was found to be one of the major variables differentiating between leavers and stayers. Younger nurses were more apt to leave than were older nurses.

Using a model of work-role design, Seybolt (1986) looked at different organizational career stages in relation to facets of the work-role design in terms of employees' satisfaction and turnover intentions. The sample surveyed consisted of female registered nurses (N=647) in a large west coast hospital. Participants were divided into five groups according to their hospital career

stage, beginning with entry and ending with employment tenure of six years or longer. Findings suggested that turnover intentions at different career stages were affected by different work-role design factors. At different career stages, these factors change in importance in terms of satisfaction and turnover intention.

Prescott (1986) studied organizational, administrative, and practice related attributes in differentiating among hospital and nursing care units experiencing varying rates of turnover. Using a descriptive design, data were collected from nurses in 90 care units in 15 hospitals. Questionnaires were distributed to all registered nurses on each unit during a five day period. A return of 1044 questionnaires represented a 58% response rate. The study found that intended turnover was associated with nurses in their first job, low job satisfaction, heavy workloads, and routinization of tasks.

Individual and Organizational Perspective on Turnover

A causal path model depicting variables influencing turnover was developed by Brief (1976). Combining both organizational and individual variables, the model included factors of job design and unmet expectations on the part of nurses and nurses' family situations. It was Brief's desire that the model serve as a framework for future

turnover research. However, research using the model was not found.

Using a causal sequence framework, Weisman, Alexander, and Chase (1981) studied both organizational and nonorganizational determinants of staff nurse turnover investigated with a sample of 1,259 nurses in two university affiliated hospitals. Findings were consistent with the causal chain, with autonomy, job satisfaction, intent to leave, and turnover being a sequence of outcomes. The researchers concluded that personal characteristics and job related attributes are predictive at various stages. The intent to leave variable was a behavioral indicator of the strength of a nurse's desire to maintain organizational membership. Shorter employment tenures and intent to leave had direct positive effects on turnover.

Price's (1981) model of turnover was evaluated in a study by Curry et al. (1985). This study was also reported by Price and Mueller (1986). Three intervening variables mediated 13 determinants of turnover. These variables were job satisfaction, organizational commitment, and intent to leave. The sample of 841 hospital workers were from five hospitals in the Denver area. Three of the hospitals had fewer than 100 beds. Registered nurses made up 75% of the sample. Results showed the variable of intent to leave as the primary determinant of turnover. This variable had a direct effect on turnover, while job satisfaction,

organizational commitment, and kinship responsibility had indirect effects on turnover through intent to leave.

In a comparison study on anticipated turnover, factors were identified that influenced job satisfaction, anticipated turnover, and actual turnover for registered nurses working in urban and rural communities (Hinshaw et al., 1986). The five stage model in this study reflected both individual and organizational factors. The sample consisted of 1,597 full-time hospital nursing staff members in seven urban (greater than 200,000 population), and eight rural (less than 100,000 population) communities. Approximately two-thirds of the sample were from urban hospitals and one-third from rural hospitals. Registered nurses made up 63% of the sample. Results showed that turnover was influenced by both anticipated turnover and clinical service. In the rural hospitals, marital status was a significant predictor of turnover. This study was significant in that for the first reported time, actual turnover, anticipated turnover, and job satisfaction were reported for rural nurses.

CHAPTER 3

METHODS

This chapter describes the research methods used to accomplish the intent of this study. Included are the research design, a description of the population and sample, the plan for the protection of human subjects, the data collection procedures, the instrument and pilot testing, and the data analysis procedures.

Design

This study used a descriptive survey design. A mailing survey was selected to obtain information about the prevalence, distribution, and interrelations of variables within a population (Polit & Hungler, 1987). The survey design allowed the researcher to gather data from a larger sample of the rural population in a rural state and examine the relationship between many variables. In addition to information about the variables related to the intent of this study, the survey elicited data on demographic characteristics such as age, education, and gender. Such characteristics have been shown to be related to an individual's behavior and attitudes (Polit & Hungler, 1987).

Advantages and disadvantages of survey research were outlined by Polit and Hungler (1987). Advantages for this study were the provision of flexibility and the broadness of scope. A larger number of respondents were contacted in less time at a lower cost than through telephone or personal interviews. The mailed questionnaire also allowed for greater anonymity for the respondent.

Limitations or disadvantages of the survey design were recognized. There was a relatively superficial quality of the information in that the survey did not probe deeply into complex human behavior and emotions. While care was taken to make instructions and questions clear and unambiguous, the possibility existed that respondents may not have had a clear understanding of each questionnaire item. Another disadvantage was the potential for a low response rate.

Population and Sample

The population selected for this study were registered nurses working in Montana community hospitals with less than 50 beds. In order to eliminate possible sources of bias, population selection was made to control for homogeneity (Polit & Hunger, 1987). Nursing directors of the rural community hospitals were not included in the population or sample. Specifically included in the population and sample were registered nurses working in

positions other than nursing director. The registered nurses were of either gender. Rural community hospitals included those who provided acute care services and those who provided both acute care and nursing home care as combined facilities. Another criteria for hospital selection was that the hospital's ownership be community based. Community ownership could be by a local nongovernmental entity or a local governmental entity. All state and federally funded hospitals were excluded from the population and sample. Specialty facilities such as stand-alone long-term care facilities, drug and alcohol treatment centers, community and public health centers, hospice and home health centers, and mental health centers were excluded. All of the hospitals or facilities that were cited for exclusion from the population were excluded because the administrative structures, employment practices, and advancement policies affecting the population would likely differ from general rural community hospitals. Nursing directors were excluded to provide a more homogeneous sample of registered nurses.

As of September, 1987, 45 Montana community hospitals were identified to potentially participate in this study (AHA, 1987). The sample from these 45 hospitals was obtained by a random drawing of the hospital names. The hospitals were listed in the numerical order that the names were drawn. From this list, hospitals were selected for

participation in the study beginning with the smallest number. Since a sample of 100-150 registered nurses was desired for the study, a sufficient number of hospitals were accessed to acquire a sample of this size. Nursing directors of selected hospitals were contacted by telephone. A brief description of the study was given stating the purpose and implications of the study for rural hospitals. To help assure consistency in communication with different nursing directors, the researcher adhered to a telephone guideline (Appendix A). Participation on the part of the hospital and registered nurses was strictly voluntary. Cooperation was solicited from each nursing director in distributing questionnaires to all registered nurses employed by the hospital. When an affirmative response for participation was given, an inquiry was made as to how many registered nurses were employed by that hospital. Data collection was initiated by mailing the questionnaire packets to each hospital's nursing director for distribution.

Fifteen out of sixteen hospitals agreed to participate. There were 220 registered nurses in the 15 selected hospitals. All geographic areas of Montana were represented by the sample hospitals. The randomized sample and geographic distribution of the hospitals allowed for the findings to be generalized to the population of rural nurses.

Protection of Human Rights

The plan for protection of human rights was accomplished by following the procedure in the Montana State University College of Nursing Graduate Program Guidebook (1985). The study was reviewed and approved by the Montana State University College of Nursing Human Rights Committee, Great Falls Extended Campus.

Following the approval of the study by the Human Rights Committee, questionnaire packets were assembled for mailing. These packets included five items. First, a cover letter was addressed to the nursing director (Appendix A) giving guidelines for distribution of the questionnaires. Secondly, a letter of consent (Appendix A) was attached for the nursing director to sign and return to the researcher. Thirdly, a participant letter of consent (Appendix A) was included stating that participation in the study was strictly voluntary and that data would be reported only as group data. The fourth item was a thank-you card for each participant with 50 cents enclosed as a gesture of thanks from the researcher. The fifth item in the packet was the 50-item questionnaire.

Individual participants were not required to return a signed consent as the return of a questionnaire implied consent. Anonymity and confidentiality of participants was assured. Respondents individually sealed and mailed the

questionnaires on completion. The participant was asked not to include his/her name on the questionnaire and questionnaires were not coded in any way.

Data Collection Procedures

Questionnaire packets as described were mailed to each selected hospital's nursing director. All mailing was done on December 28, 1987. Directions for the distribution of the questionnaires were provided in the cover letter (Appendix A). Nursing directors were asked to distribute the questionnaires in an indirect manner to avoid any possibility of coercion. Two weeks were allowed for distribution of the questionnaires. Participants were asked to complete and mail the questionnaire within five days of receiving it.

The data collection ended on January 30, 1988. At that time, 116 questionnaires had been returned.

Instrument

The instrument used for this study was a multi-item, single-item index developed by James Price and colleagues at the University of Iowa (Price & Mueller, 1986). The questionnaire consisted of closed-ended questions related to each of the proposed determinants of turnover, correlates, and the dependent variable of intent to leave. A structured instrument of this type (Appendix B) was

chosen because it would yield information that would be difficult to gather by other means (Polit & Hungler, 1987). Permission to use and to make modifications in the instrument for this study was granted by James Price (Appendix A). This instrument was designed by Price and colleagues to gather data for all hospital employees in selected hospitals. Therefore, two modifications were made: (1) the deletion of items not applicable to the R.N. population in this study, and (2) the addition of those items needed to meet additional intents of this study. Specifically, questionnaire items for the added determinants role isolation, nurse-physician relationships, traditional sex role values, and involvement were developed. Content validity for these items was assessed by the thesis committee members.

Table 1 lists all variables and corresponding numbers of the question(s) in the instrument. Demographic data collected on all respondents were age, marital status, nursing education, and gender. Participants were asked to respond to questionnaire items either by forced choice or through Likert-type scales. For example, responses for the single-item measure of nurse-physician relationships were coded as follows: (1) excellent, (2) good, (3) fair, (4) barely tolerable, and (5) intolerable.

Table 1. Variables and Item #(s).

Variables	Question #(s)
Dependent Variable	
Intent to Leave	20
Determinants	
Instrumental Communication	7
Opportunity	17, 18, 19
Routinization	3, 4, 5, 6
Centralization	12, 13
Integration	28, 30, 31
Distributive Justice	27
Promotional Opportunity	26
Kinship Responsibility	36, 37, 38, 39
Role Overload	32, 33
Involvement	34, 35
Traditional Sex Roles	29
Commitment	25
Satisfaction	16
Pay	24
Role Isolation	9
Work Unit Size	11
Nurse-Physician Relationships	23
Correlates and Sample Descriptors	
Days Worked Per Week	1
Number R.N.'s on Duty	8
Important Job Characteristics	10
Shift Worked	14
Marital Status	36
Spouse's Occupation	46
Spouse's Income	50
Extended Family	48
Promotion in Last 2 Years	47
Gender	40
Age	41
Nursing Education	42
Turnover History	44
Nursing Tenure	43
Income	49
Negative Feelings Toward Job	15
Formalization of Intent to Leave	21
Reconsideration Factors	22

Reliability and Validity

Reliability of the original multi-item measure was assessed by Price and Mueller (1986) using Cronbach alpha for multiple response items pertaining to each variable. The average for all variables was .82, indicating overall high reliability. The lowest alpha reported was for the variable integration (.61). The highest alpha reported was the variable instrumental communication (.93). A Cronbach alpha was not reported for the variable kinship responsibility. None of the literature reported on the validity of the instrument.

Scoring

Multi-item measures were scored by summing all values for items in the measure. Single-item measures were given the assigned value label and scored as marked by each respondent. The dependent variable, intent to leave, was a single-item measure with five responses ranging from a definitive intent to leave to a definitive intent to stay.

Pilot Testing

Pilot testing of the questionnaire was conducted (a) to determine the length of time required to complete the questionnaire, and (b) to ascertain and clarify any ambiguous directions or items. The testing was done at the researcher's hospital of employment, which is a 20 bed rural hospital in Montana. Registered nurses (N=7) were

asked to complete the questionnaire. Participation was voluntary and anonymity of respondents was assured by the participants returning the uncoded questionnaires to the researcher's office mailbox. All seven questionnaires were returned.

Pilot participants indicated that the length of time to complete the questionnaire ranged from 15 to 23 minutes ($M=18$ minutes). Only one change was made in a questionnaire item; an additional response "varied" was added to item number 14 which asked which shift the respondent worked.

Procedure for Data Analysis

Descriptive statistics were used to summarize and describe the sample. Lambda, a statistical test that would show associations between variables, was chosen for the data analysis. The sample was then collapsed from five groups into three groups. Group means in terms of the determinants were compared using t-tests. All statistical tests were computed using the Statistical Package for the Social Sciences (SPSS) at the University of Montana at Missoula, Montana.

CHAPTER 4

PRESENTATION AND ANALYSIS OF DATA

The intent of this study was to discover determinants that influenced registered nurses' intent to leave a job in a rural hospital. A descriptive survey design was used. The data analysis is presented as follows: (1) description of the sample hospitals, (2) description of the registered nurses in the sample based on demographic data, and (3) discussion of the findings related to the research questions.

Description of the Hospitals

Montana has 45 community hospitals with 50 beds or less (AHA, 1987). For the intent of this study, a randomized sample of these hospitals was selected to obtain a sample of 100-150 registered nurses. A total of 15 hospitals participated in the study. Nursing directors in each of the sample hospitals distributed questionnaires in sufficient numbers so that every registered staff nurse in each hospital would have the opportunity to participate. A total of 220 questionnaires were mailed. The response rate was 53% with 116 questionnaires returned. A summary of the characteristics of the sample hospitals is illustrated in

Table 2. The average hospital bed size was 24.7 beds with a range in size from 6 to 48. The average number of registered nurses, both full-time and part-time positions, per hospital for the sample was 15; the range was from 5 to 60.

Table 2. Characteristics of Participating Hospitals.

# of Beds	# of Hospitals	Range in # of Nurses Employed
10 or less	2	5
11-20	4	6-13
21-30	6	5-20
31-40	0	0
41-50	3	18-60

Description of the Registered Nurses

The analysis of the demographic characteristics for the sample of registered nurses employed by rural hospitals revealed that 7 (6%) of the respondents were male and 109 (94%) were female (Table 3). Fifty (43%) of the respondents were in the 30-39 year age group. Two respondents were less than 25 years of age, while three respondents were 60 years of age or older. The majority of respondents were married (73%). Fourteen (12%) of the sample had never married. The remaining 18 respondents (15%) were either divorced, widowed, or separated.

Table 3. Age and Marital Status (N=116).

Descriptor	Male	Female	n	%
Age Range				
<25	1	1	2	2
25-29	1	21	22	19
30-39	4	46	50	43
40-49	1	17	18	15
50-59		21	21	18
60+		3	3	3
Totals	<u>7</u>	<u>109</u>	<u>116</u>	<u>100</u>
Marital Status				
Single	1	13	14	12
Divorced	1	12	13	11
Widowed		4	4	3
Separated		1	1	1
Married	5	79	84	73
Totals	<u>7</u>	<u>109</u>	<u>116</u>	<u>100</u>

Nursing Education

The distribution of rural nurses by nursing education is presented in Table 4. Nearly one-third (36) of the respondents were associate degree prepared nurses. An equal number (36) were diploma prepared nurses. A slightly larger number (40) had baccalaureate degrees. Four nurses, 1 male and 3 females, had graduate degrees.

Table 4. Nursing Education Levels (N=116).

Educational Level	Male	Female	n	%
Associate Degree	3	33	36	31
Diploma		36	36	31
Baccalaureate Degree	3	37	40	35
Graduate Degree	1	3	4	3
Totals	<u>7</u>	<u>109</u>	<u>116</u>	<u>100</u>

Nursing Tenure and Turnover History

Nursing tenure, or the number of years worked in nursing, was reported by range in groups of total years worked. Table 5 illustrates the nursing tenure and turnover history for the sample. The majority of registered nurses (58%) had worked between 6 and 20 years. Of this group, 29% had worked from 6 to 10 years and 29% had worked from 11 to 20 years. All of the male respondents had less than 20 years of nursing tenure. In the 1 to 5 year tenure range, there were 22 respondents (19%).

The majority of respondents (58%) reported a low turnover history, having worked in one place during the past five years. A very small number (3%) reported working in five or more places in the same time period.

Table 5. Nursing Tenure and Turnover History (N=116).

Correlate	Male	Female	n	%
Total years worked in nursing:				
1-5	3	19	22	19
6-10	3	31	34	29
11-20	1	33	34	29
21-30		12	12	10
31-40		11	11	10
41 or more		3	3	3
Totals	7	109	116	100
Places worked in past five years:				
One	4	63	67	58
Two	2	27	29	25
Three	1	11	12	10
Four		5	5	4
Five or more		3	3	3
Totals	7	109	116	100

Income

The distribution of the registered nurses in regards to income is illustrated in Table 6. Respondents were asked to indicate income by a forced choice dollar range. The largest number of respondents in any range was 40 (34.5%) in the \$12,500-\$19,999 range. Thirty-four (29.3%) reported an income in the \$20,000-\$24,999 range. A small number (11) or 9.5% reported income of \$25,000 or more.

Table 6. Income of Registered Nurses (N=116).

Income Ranges	Male	Female	n	%
<\$5,000		1	1	1
\$5,000-\$7,499		4	4	3
\$7,500-\$9,999		8	8	7
\$10,000-\$12,499		18	18	16
\$12,500-\$19,999	1	39	40	34
\$20,000-\$24,999	4	30	34	29
\$25,000 or more	2	9	11	10
Totals	7	109	116	100

Spouse's Occupation and Spouse's Income

Through a forced choice questionnaire item, each respondent was asked to indicate their spouse's occupation. Nine occupational choices were offered. Respondents were also given the option of choosing a "not married" response or a "none of these" response. Table 7 describes the distribution of responses for this item. Of the occupational choices offered, 21 (18%) of the respondents indicated that their spouse was a farmer-rancher. Twelve respondents (11%) indicated that their spouse was a retailer or business person. A large number of respondents (23%) chose the "none of these" response, indicating that their spouse's occupation was not one of the offered choices. Two of these respondents commented that their spouse worked in the field of law enforcement.

Table 7. Spouse Occupation (N=116).

Occupation	Male	Female	n	%
Not Married		28	28	24
Farmer/Rancher		21	21	18
Retailer/Business		12	12	10
Banker				
Laborer		6	6	5
Health Care	2	4	6	5
Oil Industry		2	2	2
Lawyer				
Lumber Industry		2	2	2
Teacher		4	4	3
Clergy		1	1	1
Retired		8	8	7
None of These	5	21	26	23
Totals	<u>7</u>	<u>109</u>	<u>116</u>	<u>100</u>

The registered nurses were asked to indicate their spouse's income by a forced choice dollar range. A "not applicable" response was available for unmarried respondents. A large variation was evident for the choices offered. Twenty respondents (17%) reported spouse income in the \$20,000-\$24,000 range. Nine respondents (8%) reported spouse income of less than \$7500. Six respondents (5%) reported that their spouse was unemployed. Table 8 summarizes the responses for spouse income.

Table 8. Spouse Income (N=116).

Income	Male	Female	n	%
Not Applicable	2	29	31	27
<\$7,500		9	9	8
\$7,500-\$9,999		9	9	8
\$10,000-\$14,999	2	12	14	12
\$15,000-\$19,999		12	12	10
\$20,000-\$24,999	3	13	16	14
\$25,000 or more		19	19	16
Spouse Unemployed		6	6	5
Totals	<u>7</u>	<u>109</u>	<u>116</u>	<u>100</u>

Family

The majority of respondents had kinship ties either through the nuclear family or the extended family. The majority (73%) of the registered nurses were married. A large number reported having children that had not reached the age of adulthood. Twenty-eight respondents (24%) reported having children under six years of age. Fifty respondents (33%) had children between the ages of 6 and 17. Twenty-eight (24%) reported having children in college.

In regard to extended families living in the area, 47 (40%) reported that they had no relatives living nearby. Sixty-nine (60%) reported that they had extended family, either their own family or their spouse's family, living in the area. In response to the question inquiring about the type of relationship that the registered nurses had with

the extended family, only a small number (3%) reported that they did not have a good relationship.

Work Status

Table 9 presents the distribution of the number of days the registered nurses worked per week and the shift worked. A large number (42%) of the respondents reported that they worked five or more days each week. While five days of work per week is usually considered as full-time status, it must be recognized that eight respondents (7%) worked 12-hour shifts and consequently could work fewer days per week and still be considered as full-time

Table 9. Work Status of Registered Nurses (N=116).

Status	Male	Female	n	%
Days Worked Per Week				
One		3	3	3
Two		16	16	14
Three		20	20	17
Four	1	28	29	24
Five	5	40	45	39
More than five	1	2	3	3
	<u>7</u>	<u>109</u>	<u>116</u>	<u>100</u>
Shift Worked				
8 hour day	1	30	31	27
12 hour day		5	5	4
8 hour evening	4	26	30	26
8 hour night	1	22	23	20
12 hour night		3	3	3
Varied shifts	1	23	24	20
	<u>7</u>	<u>109</u>	<u>116</u>	<u>100</u>

employees. Sixty-eight respondents (52%) worked less than five days per week; this total does not include the 8 respondents that worked 12-hour shifts.

The distribution of shifts worked for the sample of registered nurses was nearly equal amongst the 8-hour day shift, 8-hour evening shift, and 8-hour night shift. Twenty-four nurses worked varied shifts, while 8 nurses worked 12-hour shifts.

Work Unit

Respondents were asked to identify the size of their work unit within the hospital. Twenty respondents (17%) indicated that their work unit was 10 beds or fewer. At the higher end of the 50 bed continuum, 25 respondents (22%) reported that they worked in a 35-50 bed unit. Thirty-nine respondents (34%) worked in a 16-24 bed unit. Twenty-four respondents (20%) worked in a 25-34 bed unit.

Respondents were asked to indicate the number of registered nurses that work at any given time on the work unit (Table 10). A large number (48%) reported working as the only registered nurse on duty on their work units. Thirty respondents (26%) reported that there was one other R.N. on duty. Twenty-six respondents (22%) reported that there were 3 registered nurses on duty. Information regarding the average patient census for the work units was not obtained.

Table 10. Number of R.N.'s (N=116).

Number of R.N.'s	n	%
Number of R.N.'s on Duty		
One	55	48
Two	30	26
Three	26	22
Four	4	3
Five	1	1
Totals	<u>116</u>	<u>100</u>

In summary, the typical respondent was 30-39 years of age and married with kinship ties. The typical respondent worked as the only R.N. on duty, earned \$12,500-\$19,999 annually, and had worked in one place during the past five years.

Job Characteristics of Importance

Item 10 asked the respondents to rate the importance of several job characteristics which as intrinsic or extrinsic factors may or may not be present in their employment situation. With a range of five choices from very important to not important, the R.N.'s rated each job characteristic in terms of the importance he/she placed on the characteristic being present in a job. Table 11 summarizes the characteristics and rating. It was evident that the large majority of respondents considered all the characteristics as important.

Table 11. Job Characteristics of Importance (N=116).

Characteristic	Important (n)	Not Important (n)
Varied Job	113	3
Good Pay	116	-
Good Benefits	113	3
Advancement	105	11
Close Friends	103	13
Informed about Job	116	-
Decision Making	116	-
Fair Rewards	115	1
Opportunity to Perform Well	116	-
Informal Educational Opportunities	114	2
Formal Educational Opportunities	106	10

Research Questions

The principal research question for this study was, "What are the determinants that may influence intended turnover of registered nurses in rural hospitals with fewer than 50 beds?" To answer this question, descriptive statistics were computed to provide measures of central tendency. Results of the data analysis are presented in the following discussion. The dependent variable (intent to leave) is discussed first, followed by the independent variables (determinants) and the correlates.

Intent to Leave

The dependent variable, intent to leave, was a single-item measure with a choice of five responses. Participants were asked to indicate what their intentions

were in the near future in terms of leaving or staying with their present job. Response choices included: (1) will definitely leave, (2) chances are good will leave, (3) situation is uncertain, (4) chances are slight for leaving, and (5) definitely not leaving. The distribution of responses for this variable is presented in Table 12.

Table 12. Responses for Intent to Leave (N=116).

Response	n	%
(1) Will definitely leave	8	7
(2) Chances good will leave	10	9
(3) Situation uncertain	34	29
(4) Chances slight will leave	35	30
(5) Definitely not leaving	29	25
Totals	<u>116</u>	<u>100</u>

To gain a better understanding of the degree of commitment to leaving or staying with the job, participants were asked to indicate how well formalized their plans were for leaving. Table 13 summarizes the responses for this item.

The third item that described the sample in terms of intent to leave consisted of several reconsideration factors which might cause a nurse to reconsider staying with the job. Participants were asked to check as many of the reconsideration factors that would apply in their situation. Participants who were not leaving were given

Table 13. Formalization of Intent to Leave (N=116).

Response	n	%
Definitely not leaving	66	57
Checking want ads	31	27
Made other application	6	5
Accepted different job	3	3
Leaving/spouse leaving	3	3
Leaving/do something else	7	5
Totals	116	100

the option of a not leaving response choice (Table 14).

Reconsideration factors with the highest response rates, excluding the not leaving response, were higher pay, better benefits, and opportunity for advancement.

Table 14. Reconsideration Factors for Intent to Leave.

Reconsideration Factor	n
Definitely not leaving in near future	71
No factors can cause me to reconsider	8
Higher pay	21
Better benefits	18
Opportunity for advancement	18
Increased autonomy	9
Improved nurse/physician relationships	7
Different work hours	12
Better staffing	13
A different supervisor	6

Determinants

The intent of the analysis for the determinants was to determine associations between the dependent

variable, intent to leave, and the determinants. Initially, Cronbach alpha was used to assess the reliability of the multi-item determinant measures. The overall reliability was .71. The lowest alpha was for the determinant integration at .30; the highest alpha was for the variable distributive justice at .90. As in the previous research (Price & Mueller, 1986), the operational method for kinship responsibility did not allow for a Cronbach alpha index. Response items for this variable were not of equal value. The four item variable consisted of marital status, children under six years of age, children between the ages of 6 and 17, and children in college. Cronbach alphas for other multi-item measures are listed in Table 15.

Table 15. Cronbach Alphas for Multi-Item Determinants.

Determinants	Cronbach Alpha
Satisfaction	0.79
Commitment	0.86
Opportunity	0.69
Routinization	0.67
Centralization	0.78
Communication	0.85
Integration	0.30
Distributive Justice	0.90
Promotional Opportunity	0.67
Role Overload	0.60
Involvement	0.61
Traditional Sex Roles	0.83
Pay	0.68

Descriptive statistics were computed for the determinants. A summary of the determinants in terms of the number of items per determinant measure, means, and ranges is presented in Table 16.

Table 16. Determinants.

Determinant	# of Items	Mean	Range
Routinization	4	8.28	4-15
Communication	6	14.04	6-30
Centralization	2	4.37	2-8
Satisfaction	5	13.00	5-22
Opportunity	3	8.61	3-14
Pay	2	6.31	2-10
Commitment	10	22.97	13-37
Promotion Opportunity	4	17.60	8-24
Traditional Sex Roles	2	6.24	2-10
Integration	3	8.48	3-13
Role Overload	2	4.75	2-8
Involvement	2	4.36	2-10
Kinship Responsibility	4	8.48	4-13
Distributive Justice	4	10.40	4-20
Role Isolation	1	3.09	1-5
Physician Relationships	1	1.87	1-5

Cross tabulation using statistical lambda was computed to measure associations between the independent variables (determinants) and the dependent variable (intent to leave). This test provided a measure of predictability between each independent variable and the dependent variable (Waltz & Bousell, 1981). Lambda values range from 0 to +1 with +1 indicating perfect predictability. Results for the lambda tests are summarized in Table 17. All

values were considered low with no indication of predictability between the determinants and intent to leave.

Table 17. Lambda Values for Determinants.

Determinants	Lambda
Kinship Responsibility	0.038
Routinization	0.096
Communication	0.154
Centralization	0.077
Satisfaction	0.173
Opportunity	0.115
Pay	0.038
Commitment	0.192
Promotions	0.058
Distributive Justice	0.058
Traditional Sex Role Values	0.058
Integration	0.077
Role Overload	0.038
Involvement	0.019
Role Isolation	0.058
Nurse-Physician Relationships	0.000

Because the results of the lambda test revealed no significance, the five intent to leave responses were collapsed into three groups for further analysis. Group one, leavers, included all respondents who indicated they were leaving or that chances were good they were leaving. Group two, undecideds, consisted of respondents whose situation was uncertain. The third group, stayers, included respondents who indicated there was only a slight chance of leaving and those who definitely were not

leaving. Table 18 presents the distribution for the three groups.

Table 18. Sample Population Groups (N=116).

Groups	n	%
Leavers	18	16
Undecideds	34	29
Stayers	64	55
Totals	<u>116</u>	<u>100</u>

The purpose of collapsing the sample population into three groups was to discover if responses of the leaver group were different from or similar to the responses of the undecided group or stayer group. Through cross tabulation, responses for the determinant measures were affiliated with responses for each of the three categories of intent to leave. Group means for each determinant were compared (Table 19). A discussion of each determinant follows.

Routinization was defined as the extent to which a job is repetitive. The four-item variable asked participants to indicate the extent the job required new learning, offered different things to do, required a high level of skill, and the challenge the job offered. The range of scores was from 4 to 15. Lower scores corresponded to less

