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EARLY-CAREER ATTITUDES AND BEHAVIORS OF RECENTLY-HIRED COLLEGE GRADUATES

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EARLY-CAREER ATTITUDES AND BEHAVIORS OF RECENTLY-HIRED COLLEGE GRADUATES

Ву

Dennis R. Briscoe

A DISSERTATION

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ABSTRACT

EARLY-CAREER ATTITUDES AND BEHAVIORS OF RECENTLY-HIRED COLLEGE GRADUATES

By

Dennis R. Briscoe

Much organizational effort goes into recruiting, selecting, placing, and developing college graduates. Nevertheless, many recent graduates appear to experience low levels of satisfaction and success and many quit their first employers early in their careers. These problems are frequently explained as resulting from needs and expectations of graduates which are not congruent with their early job experiences. This is suggested as being particularly true for graduates who have high needs and expectations for challenging jobs and good, secure working conditions.

An extensive questionnaire was administered to half (1019) of a large industrial firm's college graduate hires from a recent five-year period. Five hundred and twelve (512) of these were stayers and 507 were leavers at the time they filled out the questionnaire.

The non-traditional sections of the questionnaire were factor-analyzed, creating the following scales which were used in the statistical analyses: independent variables of Work-Related Background, nAch,

nSec, Job-Challenge Expectations, Work-Setting Expectations, Job-Challenge Experiences, Work-Setting Experiences, and Performance Reviews; and the dependent variables of Satisfaction with Work, Supervision, People, Pay, and Promotion (JDI), Self-Perceived Success, Perceived Company Ratings of Success, and Turnover.

Analysis of variance and correlation techniques produced the following results. When low needs and expectations were congruent with low job experiences, graduates reported low levels of job satisfaction and success and high levels of turnover. When needs and expectations were for "good" jobs but respondents did not experience such good jobs, they also reported low satisfaction, low success, and high turnover. Graduates who had low needs and expectations but experienced good jobs reported intermediate levels of satisfaction, success, and turnover. The highest levels of satisfaction and success and the lowest levels of turnover were reported by graduates who had high needs and expectations and experienced jobs congruent with those needs and expectations. Work-related experience prior to graduation was associated with lower satisfaction and success and higher turnover. Performance appraisals were associated with higher satisfaction and success and lower turnover.

Lastly, the data analyses showed that graduates' expectations were more congruent with their job experiences after their first jobs than was true in their first jobs.

The results indicate that organizations should select and hire graduates with expectations for high job challenge and good pay, supervisory relations, and working conditions, and then provide them with those conditions. This research indicates such a strategy will lead to higher satisfaction and success and lower turnover among an organization's recently-hired college graduates.

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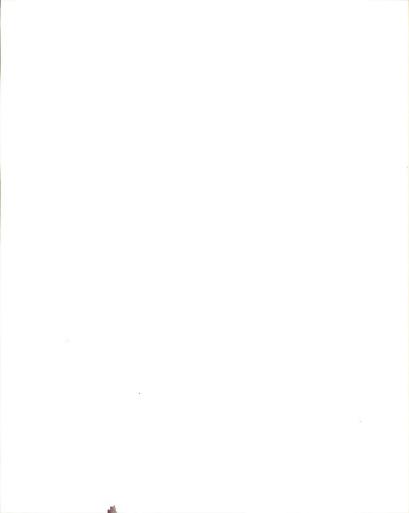
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CHAPTER I

A MOTIVATIONAL MODEL

Introduction

Great expense and effort is spent by organizations to recruit, hire, and develop college graduates. Their educations, innovative perspectives, and leadership potentials are seen as crucial to organizations' continued successes. Managerial and technical requirements of the economy, society, and government are increasing, also making college graduates an increasingly important part of the work force (Miner, 1974; DuBrin, 1974; Steers and Porter, 1975). Nevertheless, many problems are created because so many of these graduates become disenchanted and/or leave their employing organizations within the first few years on-the-job. Turnover rates for college graduates in the first five years after hire range from approximately thirty to eighty per cent with an average somewhere near fifty per cent ("Bright Young Men . . .," 1966; Tingey and Inskeep, 1973/1974; Pearson, 1966; Kraut, 1970; Albrook, 1968; Schein, 1968; and DePasquale and Lange, 1971). Albrook (1968) found that sixty per cent of the companies surveyed

by <u>Fortune</u> reported their turnover rates for recent graduates to be increasing.

This dissatisfaction and turnover, and the costs involved, are major sources of concern for many organizations (Albrook, 1968; Dunnette, Arvey and Banas, 1973; White, 1970). Estimates of the dollar costs for the termination of one graduate, including the recruiting, selection, and training of another to take his place range from five months' to three years' salary (see for example, Fetyko, 1972; Flamholtz, 1974; Jennings, 1974; Jeswald, 1974; and Tingey and Inskeep, 1973/1974). These estimates vary according to the types of costs considered, the amount of time and development the organization invests in the graduate prior to termination, and the graduate's level within the organization. Under any circumstances, though, these costs are considerable. Other, less direct costs which are related to this turnover -- as individuals leave one job and move to another--include lowered organizational productivity, unemployment, job dislocation, manpower underutilization, psychological and family readjustments, feelings of frustration and alienation and other mental and emotional reactions.

From the organization's perspective, the severity of this problem is even increased by the likelihood that many of the graduates who become dissatisfied and/or leave are among the more productive, or potentially productive, in their organizations. Farris (1971) found that twenty-three per cent of those who left were

judged to be in the top ten per cent in usefulness. Bray, Campbell and Grant (1974) found, in a study of managers at AT & T, that forty-two per cent of those who left voluntarily early in their careers were assessed as "should be middle-management," as compared to only thirty-five per cent of those who remained and to only thirty-three per cent of the full group that started the study. Jennings (1967, 1971) indicates that many organizations lose capable young graduates who go on to become top-level executives in other organizations. Storey (1974) reports that dissatisfaction is strongest among high performers, particularly in low-performing organizations.

Even though college graduate turnover is a problem for many organizations, our understanding of the turnover process is quite limited. Most of the studies of graduates or organizational employees with college degrees have only considered demographic and organizational variables. Price (1973), for example, says we need to include a motivational framework in our study: "... psychological determinants will have to be included within the theory." Porter and Steers (1973), talking specifically about the problem of turnover, agree:

... [V] oids exist in our knowledge of turnover ... which require further study. ... [M] uch more emphasis should be placed on the psychology of the withdrawal process. While correlational studies abound ... which relate various [structural] factors to withdrawal, our understanding of the manner in which the actual decision is made is far from complete (p. 171).

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A Motivational Model

Steers and Porter (1975) suggest that a comprehensive theory of motivation at work should address itself to at least three sets of variables. They group these variables into three sets: those which concern the individual (including individual expectations and needs); the requirements and nature of the job; and the larger organizational environment.

A number of authors have written about the early career experiences of college graduates (see, for example, Athos, 1963; Hall, 1971b; Hall and Hall, 1976; Schein, 1961, 1964, 1967 and 1968; Wanous, 1975b and 1977; and Webber, 1976). These authors have focused extensively on the degree to which individual's first-job expectations have meshed with their early job experiences, as did Porter and Steers (1973):

[E] ach individual is seen as bringing to the employment situation his own set of expectations for his job. . . . [W] hatever the composition of the individual's expectation set, it is important that those factors be substantially met if the employee is to feel it is worthwhile to remain with the organization (pp. 165-166).

Most of the work on this problem has dealt with the individual and job levels of analysis, as suggested by Steers and Porter (1975).

A number of variables at those levels have been identified which appear to influence employees' satisfaction, their degree of success

on their jobs, as well as their willingness to stay or to leave. The remainder of this chapter will review the research on these relationships, develop a model--as indicated by the literature--of the early career attitudes and behaviors of college graduates, and suggest some hypotheses for further research into the model.

The Individual

Three general aspects of individuals which seem to relate to employees' job attitudes and behaviors are considered. These include such variables as employees' backgrounds and how these relate to their vocational interests and their interests in particular types of jobs; employees' job-related needs; and their expectations about things like the receipt of different organizational rewards. These have been central concepts in many research efforts and writings.

Expectations. Experiences in and out of organizations lead individuals to develop expectations about "the way things are." A major type of expectation has to do with employees determining the probabilities that particular actions will lead to particular results on their jobs. These expectations about performance-outcome relationships in organizations serve as a "map" for employees as they go about planning and acting to fulfill their needs and achieve their goals. These expectations are employees' predictions (based on their experiences and educations) about the likely future outcomes

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of their particular courses of action. Employees' drives to engage in particular behaviors, then, are at least partially a function of their expectations that their efforts will result in certain outcomes which they want (Tolman, 1959; Vroom, 1964; Lawler, 1973).

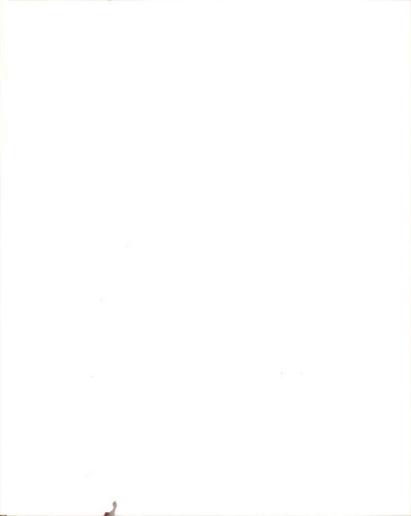
College graduates, when making their transitions from school to work, must "learn the ropes" of their new employers. If their expectations about conditions on their jobs are realistic, i.e., they correctly anticipate what their new jobs and organizations are like and what is required of them, adaptation tends to be relatively easy. Satisfaction tends to be higher. And they are less likely to want to leave. However, many individuals find that they have inaccurately anticipated the requirements and/or environments of their new jobs. Adaptation in such situations can be frustrating and can lead to dissatisfaction and/or the search for another job or organization which the individual may perceive to be more likely to meet his expectations. Vroom and Deci (1971) found that many graduates whose attitudes about their chosen organizations became less favorable after joining them, do decide to leave. Subsequently in their new jobs, they reported higher levels of satisfaction. This might have indicated a better choice of organizations relative to their expectations, or a change in the graduates expectations to more realistic levels.

Expectations can be most accurately formed when one has access to accurate information about potential companies and jobs as

well as enough experience in work settings to be able to interpret such information in terms of his abilities to perform in those settings. Typically, college graduates have problems on both counts (Athos, 1963; Livingston, 1969; Schein, 1961, 1964, 1968; Patten, 1969; Hall, 1971b).

Companies do not generally provide much information about the nature of their operations nor about the requirements of the jobs for which they recruit graduates. When they do provide such information, satisfaction and turnover levels are much improved (Weitz, 1955; Weitz and Nuckols, 1955; Fox, Diamond and Walsh, 1960; Katzell, 1968; Marion and Trieb, 1969; Carlson, et al., 1971; Wanous, 1975b). In addition, college graduates don't often have much practical experience from which to evaluate their own potentials in these new jobs nor to judge what to expect in those jobs.

Dunnette, Arvey, and Banas (1973) and Katzell (1968) present evidence that entrants into the organizations which they studied all had similar types of expectations and that entry-level expectations were the same for those who subsequently left and those who stayed. Ondrack (1973) and Yankelovich (1974a and 1974b) also present evidence that there is much similarity among the general work-related expectations of college students. Since entry-level expectations are apparently similar for most graduates, yet their reactions to their jobs vary considerably, such research would suggest that it is the extent to which expectations are met on-the-job that results in



the varying levels of dissatisfaction and termination. That is, it is likely the differences in job experiences which lead to the differing levels of satisfaction, success, and turnover.

These expectations about work play an important role in a number of work-related behaviors. Expectations and job needs help graduates choose which organization and which job to work for (Vroom, 1966; Wanous, 1972, 1975a; Lawler, et al., 1975; Mitchell and Knudson, 1973). Students choose those organizations and jobs which are perceived to provide the outcomes they want from their jobs as well as having the opportunities for achieving those outcomes. Mitchell and Knudson (1973), for example, found that students! attitudes toward different business careers were clearly predictable from the multiplicative combination of their expectations about the availability of success and rewards in different occupations and their preferences for those outcomes (even though students! expectations about the different occupations were more important to their choice of one of those occupations than were their preferences for the different outcomes).

Experiences on-the-job also appear to help graduates determine their expectations that the rewards they desire will be available in the future (Lewin, et al., 1944; Lawler, 1973; Wanous, 1975a).

If the employees' work behaviors do not lead to the outcomes expected, dissatisfaction will result. This could lead them to seek

other employment opportunities which they predict will more fully satisfy their needs and expectations. Unmet expectations, then:

- a. Influence the degree to which graduates feel their jobs will, in the future, provide the rewards they desire, i.e., if their jobs have not provided these outcomes in the past, they won't expect them to provide these outcomes in the future; and
- b. Cause graduates to search their environments for more attractive job alternatives (Lawler, 1973; March and Simon, 1958).

For these reasons, then, initial work experiences after graduation may be frustrating to many employees. On their first jobs, many persons are in the process of forming more realistic expectations—relative to the kinds of jobs and opportunities available to them. To the extent that their initial expectations are realistic, or that graduates find that their needs can be met in their chosen jobs, adaptation is facilitated, and frustration, dissatisfaction and turnover will be minimized.

Work-Related Background. Employees' choices of vocations, organizations, and jobs and their interests in different organizational rewards, such as money, appear to be related to their backgrounds. Strong (1943, 1955), Super (1957) and Super and Bohn (1970), among others, have examined the relationships between characteristics of one's family--such as income levels, parental educations and occupations--and one's pursuit of different educational and vocational paths. These studies show that individuals

follow paths and develop interests similar to those of their parents. Bowles (1972) and King (1974) also found that occupations and jobs chosen by students relate closely to the occupations and types of jobs of their parents. Ferrari (1970) and Warner and Abegglen (1955) demonstrated a close relationship between the positions held by business leaders, government executives, and university presidents and the occupations of those leaders' fathers.

From this research, we can infer that college graduates who have extensive work experience and/or have parents with college educations and professional/managerial occupations should have more realistic expectations about their chosen occupations and jobs than graduates whithout this experience or type of family background. These more realistic expectations should then lead to higher levels of satisfaction and, thus, less interest in leaving to find another job.

Needs. Needs are defined as "an internal state of disequilibrium which causes individuals to pursue certain courses of action in an effort to regain internal equilibrium (Steers and Porter, 1975, p. 23)." Argyris (1964), McClelland (1961), McGregor (1960) and Maslow (1970) are among those who feel that individuals seek jobs which provide outcomes that they perceive will help satisfy their needs. The particular outcomes which employees seek from jobs affect how they behave, as they will be motivated to take actions which they calculate will result in the desired outcomes.

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Research suggests that two broad categories of needs are important to different types of employees, lower-order and higher-order needs. Keys, et al. (1950), Wolfe (1958), Cofer and Appley (1964), Alderfer (1969, 1972) and Lawler and Suttle (1972) found evidence to suggest that "lower-order" needs, such as the need for security, can dominate the motivations of employees if they are not adequately satisfied.

When lower-order needs are relatively well satisfied, though, other needs appear to gain importance. Need for Achievement (nAch)--a relatively stable predisposition to strive for success, the need to excel in relation to competitive or internalized standards--evidently relates closely to success in jobs like those of business and government executives (McClelland, 1961; Vroom, 1964; Andrews, 1967; Atkinson, 1964). The AT& T Management Progress Study (Bray, Campbell and Grant, 1974) found that a strong achievement orientation positively correlated with success and that a strong security orientation negatively correlated with success.

Others have found indications of the general importance of achievement opportunities among college students and recent graduates. Seiler (1970) and Yankelovich (1974a) found that college graduates and students value chances to have responsibility and to achieve on their own. Turner and Lawrence (1965) and Friedlander (1965) found that white-collar workers tend to value intrinsic outcomes from their jobs (those outcomes which are related to task

accomplishment and to task achievement). Ondrack (1973) also found a growing emphasis on independence and individual achievement, similar to the results of Manhardt (1972).

Since people take jobs which they expect to at least partially satisfy their needs, organizational experiences become important relative to those needs. Morse and Weiss (1955), Porter (1962, 1963) and Blood and Hulin (1968) found that employees' levels of satisfaction are influenced by the degree of relationship between their needs and the kinds of jobs they hold. That is, employees' levels of satisfaction are closely related to the extent to which their strongly felt needs are met by the outcomes they receive in and through their jobs.

These findings suggest another general hypothesis, that graduates' needs will be related to their job expectations, and the degree of similarity between their needs and expectations, and their job experiences will influence the graduates' levels of satisfaction and their interests in leaving their jobs.

The Task

As indicated in the previous section, Ondrack (1973), Yankelovich (1974a and 1974b), and others have found strong evidence that
college students expect challenging, autonomous, achievementoriented jobs. Obviously, not all graduates find such jobs. Consequently, first jobs may not be as satisfying as one might have

expected. The nature of the job experiences in these first jobs is crucial to these individuals' adaptations to work life. Berlew and Hall (1966), Bray, Campbell, and Grant (1974) and Dunnette, Arvey, and Banas (1973) have shown how important it is for graduates to find challenge and achievement opportunities on their first jobs.

When the organization generates high expectations for achievement on the new employee it tends to lead to a general pattern of successful job performance (Berlew and Hall, 1966; Bray, Campbell, and Grant, 1974). And such success often results in higher levels of satisfaction and lower levels of turnover. Berlew and Hall (1966) outline the reasons for these relationships in the following way:

The key feature . . . is the concept of the first year as a critical period for learning, a time when the trainee is uniquely ready to develop or change in the direction of the company's expectations. . . . Meeting high company expectations in the critical first year leads to the internalization of positive job attitudes and high standards; these attitudes and standards, in turn, would first lead to and be reinforced by strong performance and success in later years. It should also follow that a new manager who meets the challenge of one highly demanding job will be given subsequently a more demanding job, and his level of contribution will rise as he responds to the company's growing expectations of him.

On the other hand, being assigned to an undemanding job or failing to meet the challenge of a demanding job in the first year may seriously jeopardize a new manager's subsequent performance and success. If he fails to meet high expectations, he will not experience the internal and external rewards that can lead to the internalization of high performance standards and positive job attitudes. If he is given a job which demands little of him, whether he meets

expectations or not, he is not likely to win the recognition that can lead to positive job attitudes or the personal satisfaction that will facilitate the internalization of high performance standards. In either case, his failure to develop positive job attitudes means that he will respond primarily to external work incentives, and his lack of high personal standards of performance will lead him to do only as much as is expected of him (pp. 221-222).

Some research has examined characteristics of the task and their importance to employee reactions. The Minnesota studies of job satisfaction and job characteristics (Gay, et al., 1971; Bergen, et al., 1968; Betz, 1969; Golden and Weis, 1968) showed that the reward characteristics of jobs should match the rewards desired by the job holder to maximize satisfaction at work. Hackman and Lawler (1971) and Wanous (1974) also identified the importance of match between employee needs (particularly for intrinsic rewards, such as achievement and responsibility) and their working in a job that offered such intrinsic outcomes. Such congruence led to higher satisfaction, lower absenteeism, and more positive performance evaluations. Herzberg, Mausner, and Snyderman (1959), Herzberg (1966, 1968), Ford (1969), and Meyers (1970) have concluded that the intrinsic rewards of jobs rich in responsibility, self-control, and achievement opportunity led to the highest levels of satisfaction and motivation to perform.

Another aspect of the task which has received considerable attention is the degree of feedback about performance which is provided the job holder. Locke (1967) and Locke and Bryan (1969)

report that feedback was important when specifically related to employees' accomplishment of goals. Porter, Lawler and Hackman (1975) suggest that employees will not experience satisfaction, particularly of their higher-order needs, unless they obtain some kind of feedback about how they are doing. Other researchers (for example, Pryor and Bass, 1957; Weitz, Antionetti and Wallace, 1954; Zajonc, 1961; Kim, 1974; and Mainstone, 1975) have found that the presence of feedback about performance is related to high performance.

Feedback appears to be the means by which employees update their expectations and behavior so that they can more closely conform with their organizations' requirements. Seiler (1970) found that college graduates express a strong desire for feedback from their supervisors, probably because of their realization that they lack experience and, thus, that they need to be told by more experienced persons—their supervisors—how they are doing relative to organizational standards. With that knowledge, the individual can then make appropriate changes in his attitudes and/or behaviors.

In work organizations, performance appraisals are important sources of feedback. They come from one's supervisor and they ostensibly relate to the distribution of rewards such as pay and promotions. There are a number of problems with appraisal systems, though. Managers who are supposed to be appraised often

report that no substantive appraisals take place, that the appraisals that do occur are often ambiguous (DuBrin, 1974; Carroll and Tosi, 1973). For these performance appraisals to have an effect, though, it is important that the individual recognizes that their performance is, in fact, being appraised.

This research and literature on the nature of employees' tasks suggests that it is important for these tasks to have the kinds of characteristics the incumbent expects. That is, jobs rich in challenge and achievement opportunities, with feedback about how the job incumbent is doing, appear to have strong relationships to the employees' levels of satisfaction, performance, and, subsequently, their desires to stay or to leave.

Research Hypotheses

The theories and research ideas cited in this chapter lead to a number of hypotheses about the relationships among the many variables which seem to affect graduates' early-career attitudes and behaviors. These relationships are outlined in Figure I-1 and are stated below:

H 1. Recent graduates will be more satisfied when they have a high amount of work-related background prior to graduation and when their personal needs, first-job expectations and first-job experiences are congruent than will be the case for recent graduates who do not have this work-related background and who do not have the congruence between their needs, first-job expectations and first-job experiences.

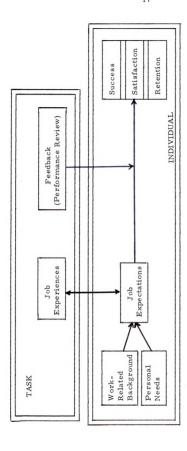


FIGURE I-1. -- Model of college graduates' early-career attitudes and behaviors.

- H 2. Recent graduates will be more successful when they have a high amount of work-related background prior to graduation and when their personal needs, first-job expectations and first-job experiences are congruent than will be the case for recent graduates who do not have this work-related background and who do not have the congruence between their needs, first-job expectations and first-job experiences.
- H 3. Recent graduates will be less likely to leave when they have a high amount of work-related background prior to graduation and when their personal needs, first-job expectations, and first-job experiences are congruent than will be the case for recent graduates who do not have this work-related background and who do not have the congruence between their needs, first-job expectations and first-job experiences.
- H 4. Recent graduates' expectations for their current jobs will be more congruent with their current-job experiences than was the case for their first-job expectations and first-job experiences.
- H 5. Recent graduates will be more satisfied when they receive a performance review and when their personal needs, first-job expectations and first-job experiences are congruent than will be the case for recent graduates who do not receive a performance review and who do not have the congruence between their needs, first-job expectations and first-job experiences.
- H 6. Recent graduates will be more successful when they receive a performance review and when their personal needs, first-job expectations and first-job experiences are congruent than will be the case for recent graduates who do not receive a performance review and who do not have the congruence between their needs, first-job expectations and first-job experiences.
- H 7. Recent graduates will be less likely to leave when they receive a performance review and when their personal needs, first-job expectations and first-job experiences are congruent than will be the case for recent graduates who do not receive a performance review and who do not have the congruence between their needs, first-job expectations and first-job experiences.

Summary

In summary, then, the following picture emerges of college graduates' early career attitudes and behaviors. Many graduates apparently develop expectations for challenging, developmental, autonomous, and highly rewarding jobs for their first employment after graduation. To the extent that these expectations are met by organizational experiences, graduates find adaptation facilitated and, thus, usually want to stay with their organizations. On the other hand, when these expectations are not met--which often seems to be the case, graduates feel frustrated and dissatisfied and often consider leaving.

This relationship--between graduates! first-job expectations and their first-job experiences--appears to be moderated by other variables. Graduates who receive feedback about their performance are more likely to be both more satisfied and more successful, and, thus, less likely to want to leave (than graduates who do not receive a performance appraisal). And those individuals with work experience or professional family backgrounds appear more likely to not only form more realistic expectations about their first jobs, but also to be able to choose jobs and organizations which provide them with the experiences to meet their needs and expectations.

CHAPTER II

METHODOLOGY

In Chapter I, a model of some relationships among the early career experiences and attitudes of college graduates was developed. A number of hypotheses about these relationships were stated. This chapter describes a research strategy, a measurement instrument, and an analytical approach to test those hypotheses.

Subjects

The model considered the relationships between early career experiences, attitudes, and behaviors of college graduates. Accordingly, a sample of recently-hired graduates for managerial, engineering, and staff jobs of a major automobile manufacturing firm were provided information for the study about their early careers. The organization provided the names of all their graduate hires for a five-year period, including those who had voluntarily terminated (the leavers) and those who were still with the Company (the stayers). The leavers represented about one-half the Company's hires and made up close to one-half the total research sample. Table II-1 lists the criteria that were used for determining who to include in

the sample. Every effort was made to insure that all the members of the sample would be recent graduates, with limited experience prior to graduation (under 30 years of age) and with similar experiences after hire (participation in the college graduate training program).

Data were obtained from 1019 of these recent hires, which was about half the Company's total hires for the period. Five hundred and twelve (512) were stayers and 507 were leavers, each representing approximately half of their corresponding groups.

Table II-1. -- Selection criteria for research sample.

- 3. All respondents were, or had been, on the College Graduate Training Program during their employment.
- 4. All respondents were college graduates with Bachelor Degrees, or better.
- 5. The Leavers had to have been voluntary quits.
- 6. All Leavers had to have had at least a 90-day cooling-off period after termination before they could participate in the study.

^{1.} Leavers and Stayers had to have been hired within the recently-ended five (5) year period.

^{2.} All respondents were under 30 years of age.

Measurement Instrument

A questionnaire was developed to assess the factors outlined in the model in Chapter I (see Figure I-1). The questionnaire contained several sections. Subjects responded about their family, college, and work backgrounds; their personal job-related needs; their job expectations; their early-career job experiences; their receipt of a performance review on their first job; and how satisfied they felt about their job experiences (see Appendix A for the questionnaire). The following are the sections of the questionnaire, which identifies the types of variables used in the testing of the research hypotheses:

- 1. Background Information
- 2. Job Needs
- 3. Job Expectations
- 4. Job Experiences
- Job Satisfaction
- Perceived Success
- 7. Performance Review
- Turnover

Stayers and Leavers were asked to answer questions, in retrospect, about their early careers with the company. This kind of research strategy may create biased responses. Respondents tend to change past attitudes into agreement with present attitudes, or into agreement with what the respondents have come to believe are socially desirable attitudes. Campbell and Stanley (1963) indicate that answers-in-retrospect are probably quite conservative, or

understated, estimates of individuals' actual attitudes at the earlier time. They suggest, therefore, that having available such responses-in-retrospect is not as bad as one might, at first, assume. This is particularly true when no longitudinal responses are available. Further, Hinrichs (1975) concluded that questionnaire data from already terminated employees provided more accurate information about actual attitudes toward the employees' experiences than did immediate exit interviews, because of the emotion surrounding the exit interview and because of the terminee's desire not to say anything that would bias future job-reference requests.

The job satisfaction section of the questionnaire used an existing form (the Job Description Index of Smith, Kendall and Hulin, 1969). Other sections of the questionnaire were written to tap attitudes about job aspects which have been researched by others and found to be important, for example, by Porter (1962, 1963) and Alderfer (1969, 1972). The sections which were prepared for this study were written so that the items within the different sections would refer to the same facets of the job.

All but the Job Needs section used a Likert-type scoring format, with five to eight response alternatives. The Job Needs section asked respondents to rank-order fifteen job facets, from "Least Necessary in a Job" to "Absolutely Necessary in a Job." The following paragraphs describe the original scales of the questionnaire which sought to assess the subjects! backgrounds, job-related

needs, job expectations and experiences, job satisfaction, perceived success, and turnover.

<u>Subjects' Backgrounds</u>. A number of items about respondents' backgrounds were included in the questionnaire. Table II-2 indicates these items.

Table II-2. -- Background information.

- 1. Educational attainment of Father (or Guardian).
- 2. Father's Occupation.
- 3. Educational attainment of Mother (or Guardian).
- 4. Number of persons dependent on graduate for all or most of their support while graduate attended college.
- 5. Proportion of college expenses earned personally.
- 6. Armed Forces experience prior to joining the Company for the first job.
- 7. Average number of hours worked per week during last two years of college (other than summer job).

Job-Related Needs. This section of the questionnaire asked respondents to rank-order fifteen job facets. Table II-3 shows a shortened example of this section.

Table II-3. --Example of questionnaire items dealing with job needs when graduating from college.

What Did You Want in a Job When You Were Graduating From College?

What did you want in a job at the time you were graduating from college--when you were interviewing with different companies for jobs they had? What were you looking for then?

Listed below are 15 phrases describing various job features. Read them over and then sort them according to what you were looking for in a job when you were graduating from college. Remember, when you are done, all job features should be crossed out and each box should have a number in it.

- 1. Having a boss who backs me up
- 2. Having good working conditions on the job
- 3. Being well paid

15. Job security

Least Necessary in a Job Relatively Less Necessary in a Job Desirable in a Job

Highly Desirable in a Job Absolutely Necessary in a Job

Job Expectations. An example of the items assessing respondents! expectations for their first jobs after graduation is shown in Table II-4. These items were written to cover the same job facets as the next section on Job Experiences. Similar questions

were asked about all respondents' present jobs. Of course, the

Leavers were in other organizations, while the Stayers were still
with the Company.

Table II-4. -- Example of questions dealing with job expectations.

- Relationship between EFFECTIVE PERFORMANCE and JOB OUT-COMES on Your First Assignment with the Company.
- How certain were you in your first assignment at the Company that a high degree of performance effectiveness (really being top notch) would lead to each of the job features or outcomes listed below? Indicate your expectations about the probable results of effective performance on that first job.
- On my first assignment with the Company, if my performance was judged to be highly effective:
 - 1. I would try out my own ideas.

Cert Prob ? Prob Cert not not ? would would

Job Experiences. Table II-5 illustrates the type of questions that asked respondents about their experiences on their first jobs. A similar set of questions were asked about respondents! present jobs. Again, these items refer to the same job facets as do the items in the Job Expectations section.

Table II-5. -- Example of questions dealing with job experiences.

A Description of Your First Assignment with the Company. Workers on that first job . . .

1. tried out their own ideas.

DD D ? A DA

DD -- Definitely Disagree
D -- Probably Disagree
? -- Neither Disagree or Agree
A -- Probably Agree
DA -- Definitely Agree

Job Satisfaction. The Job Description Index (JDI) developed by Smith, Kendall and Hulin (1969), was used to measure respondents' satisfaction with their work experiences. The JDI has been widely used in organizational behavior research. As Table II-6 shows, its format is slightly different from the other sections of the questionnaire. One advantage of the JDI for measuring levels of satisfaction is that it provides an established procedure for examining the components of employees' satisfaction, i.e., their satisfaction with different components of the job (work, supervision, people, pay and promotion).

Table II-6.--Examples of items contained in the job description index.

Description of the Work, People, Pay, Promotions and Supervision of Your First Assignment.

Below are five groupings of items. Each group represents some aspect of your first job assignment. We'd like you to indicate your feelings about these aspects by circling "Y" (yes) if the item is descriptive of your first job assignment, "N" (no) if it is not descriptive, and "?" if you cannot decide.

WORK		PAY	
Fascinating Routine Challenging	Y N ? Y N ? Y N ?	Less than I dese r ve High l y Paid	Y N ? Y N ?
SUPERVISION		PROMOTIONS	
Hard to Please Knows Job Well	Y N ? Y N ?	Dead-End-Job Regular	Y N ?
		promotions	Y N ?

Perceived Success. Measures of success were self reports of employees' feelings of success relative to their peers, according to percentile-type rankings. Since individuals might view themselves as more or less successful than the organization, though, graduates were asked both how they felt about themselves and how they perceived the Company to be rating them (see Table II-7). Three different rating scales were used for each of the self and Company perceptions (refer to the questionnaire in Appendix A).

Table II-7.--Example of items dealing with graduates' perceptions of success.

Your Success on Your First Assignment with the Company.

Comparing yourself with others with similar jobs and qualifications, how did you feel about your success on this first assignment? Circle the appropriate category.

In the top: 1. 10% 3. 75%

2. 25% 4. 95%

How did you feel that the Company rated your success on this first assignment? Circle the appropriate category.

In the top: 1. 10%

3. 75%

2. 25%

4. 95%

Performance Reviews. The last item in the questionnaire asked respondents if they had received a performance review in their first assignment. Table II-8 shows the question that was used to ascertain the presence of this type of feedback.

Table II-8. -- Question to ascertain receipt of performance review.

Did you ever have a performance review with your supervisor on your first job assignment?

Circle:

1. Yes

2. No.

Scale Analysis

The Job Expectations and Job Experiences sections of the questionnaire were factor analyzed to determine the underlying factors in the scales. Since the JDI has been extensively used by other organizational researchers, it was not subjected to the factor analysis. This section of the chapter presents the results of the factor analysis and the scale reliabilities of the resulting factors. These derived, rather than a priori, factors were used in testing the hypotheses. The research hypotheses are restated in terms of these derived factors in the final section of this chapter. The methods used for testing the hypotheses are also described. A detailed description of the results of the factor analysis is in Appendix B.

The Statistical Package for the Social Sciences (SPSS, Nie, et al., 1975) was used for most of the statistical procedures, including the factor analysis. SPSS, in its factor analysis procedures, derives factors from a set of items up to a limit of the number of individual items being analyzed. The VARIMAX rotation procedure was used. Basing factors on those items which loaded most heavily into groups after Varimax rotation and which explained the largest percentages of variance in the total set of items (with eigen values of at least one) produced the subscales described in the following paragraphs.

Work-Related Background. The seven items of this section
were reduced to a three-item scale with reliability (coefficient alpha)

of .78. The resulting scale included items which related to subjects' family backgrounds and to their degree of work experience prior to graduation. The following three items comprised the factor:

- 1. Education of Father (or Guardian)
- 2. Occupation of Father (or Guardian)
- 3. Per cent of college expenses self-earned

Personal Job Needs. Specific Job Needs were identified by grouping individual items which correlated highly and also had similar content. Using this procedure on the original ranked data produced two factors which contained items which made sense in terms of previous research efforts. These two factors were labelled Need for Achievement (nAch) and Need for Security (nSec). The nAch subscale was made up of the following items:

- The MACH subscare was made up of the following
 - 1. Achievement from job
 - 2. Try out own ideas
 - 3. Make use of abilities

The nSec subscale included these items:

- 1. Good pay
- 2. Advancement possibilities
- 3. Job security

The reliability was based on the mean correlation between the items in the scale (Nunnally, 1967). The reliability for the nAch subscale was .33 and for the nSec subscale was .17.

Job-Challenge Expectations. The section that asked about respondents' expectations for their first jobs contained two major factors, which accounted for 91.2 per cent of the variance in the

total set of expectation items. The first set of these items included the following:

- 1. Make use of abilities
- 2. The work itself
- 3. Try out own ideas
- 4. Achievement from job

The reliability of this scale is .84. These items are characteristics often associated with an enriched and challenging job (Hackman, et al., 1975) and has been, accordingly, labelled "Job-Challenge Expectations."

Work-Setting Expectations. A number of items relating to the context of the job grouped together into a second underlying factor. The reliability for this scale is . 79. The scale items included:

- Fairly administered policies
- 2. Good pay
- 3. Boss would back me up
- 4. Job security
- 5. Good working conditions
- 6. Status in the community
- 7. Advancement possibilities
- 8. Recognition for work

Job-Challenge Experiences. Two factors were also derived from the questionnaire section dealing with first-job experiences. accounting for 81.3 per cent of the total variance in these items. The first of these factors had a reliability of .82 and included the following items:

- 1. Make use of abilities
- 2. Achievement from the job
- 3. Try out own ideas
- 4. Make decisions on own
- Variety on job
 - 6. The work itself

The items in this factor were similar to those in the Job-Challenge Expectations factor. Therefore, this factor was labelled "Job-Challenge Experiences."

Work-Setting Experiences. The second "experience" factor was similar to the Work-Setting Expectations factor. This "Work-Setting Experiences" factor had a reliability of .76 and included the following items:

- 1. Recognition for work
- 2. Boss back me up
- 3. Boss train men well
- 4. Good pay
- 5. Job security

Job Success. Two a priori measures of Job Success were used. Both measures included the same items, but differed in that one was a measure of the graduates' estimates of their own success while the other was subjects' perceptions of how the Company was rating them. These two scales had reliabilities of .57 and .61, which are generally adequate for research purposes (Nunnally, 1967). The first of these scales was <u>Self-Perceived Success</u> and included these items:

- 1. In the top (__%)
- 2. According to the Company rating system
- 3. On a 10-rung ladder

The second of these scales was "Perceived Company Rating" and used the same items:

- 1. In the Top (%)
- 2. According to the Company Rating System
- 3. On a 10-rung ladder

Feedback. Respondents' receipt of feedback was determined through their answers to a single item which asked whether they had received a performance review on their first job. This single-item scale was used to test the hypotheses that dealt with the role of feedback on graduates' attitudes and behaviors. Such a single-item scale precludes any measuring of reliability, but it does have face validity for providing the necessary information about this particular source of feedback.

Job Satisfaction. Job Satisfaction was measured with the JDI. Smith, Kendall, and Hulin (1969) report reliabilities for the different sections ranging from .80 to .88. The five areas of satisfaction examined by the JDI--Work, Supervision, People, Pay, and Promotion--provided a means for looking at a number of possible satisfaction outcomes in the testing of the hypotheses.

Turnover. Turnover was a single-item scale to determine whether the individual had left the Company within his first five years of employment.

Summary of the Scales. These were the factors and scales used in this research. They are listed together on Table II-9. An examination of the Needs, Expectations, and Experiences factors reveals the similarities among two different sets of factors. The items found in the nAch, Job-Challenge Expectations and Job-Challenge Experiences factors are similar. Likewise, the items in the nSec, Work-Setting Expectations, and Work-Setting Experiences

Table II-9. -- Factor and scale composition for questionnaire.

	ction of estionnaire	Factor Name	Items in the Factor	Reliability of Factors*
Α.	Background Information		 Education of Father (Guardian) Occupation of Father (Guardian) Per cent of College Expenses Self-earned 	. 78
В.	Job Needs*	NEED FOR ACHIEVEMENT	 Achievement from Job Try Out Own Ideas Make use of Abilities 	. 33
		NEED FOR SECURITY	 Good Pay Advancement Possibilities Job Security 	. 17
c.	Job Expecta- tions	JOB CHALLENGE	 Make Use of Abilities The Work Itself Try Out Own Ideas Achievement from Job 	. 84
		WORK SETTING	 Fairly Administered Policies Good Pay Boss Would Back Me Up Job Security Good Working Conditions Status in Community Advancement Possibilities Recognition for Work 	. 79
D.	Job Experiences	JOB CHALLENGE	 Make use of Abilities Achievement from Job Try Out Own Ideas Make Decisions on Own Variety on Job The Work Itself 	.82
		WORK SETTING	 Recognition for Work Boss Back Me Up Boss Train Men Well Good Pay Job Security 	. 76

^{*} Coefficient Alpha for all factors except ranked data (Section B) and single-item factors.

Reliabilities for Section B determined from the average interitem correlations (Nunnally, 1967).



Table II-9. -- (Continued).

	tion of estionnaire	Factor Name	Items in the Factor	Reliability of Factors*
Ε.	Job Succe ss	SELF- PERCEIVED	 In the Top (_%) According to Company Rating System On 10-rung ladder 	.57
		PERCEIVED COMPANY RATING	 In the Top (_%) According to Company On 10-rung ladder 	. 61
F.	Feedback	PERFORMANCE REVIEW	Receipt of a Performance Review on first job	
G.	Job Satisfaction	WORK		
	(Job Description	SUPERVISION		
	Index)	PEOPLE		(.80 to .88)**
		PAY		
		PROMOTION		
н.	Turnover*	TERMINATION	Voluntary termination within five-year period	

^{*} Coefficient Alpha for all factors except for ranked data (Section B) and single-item factors.

^{**} Reliabilities as reported by Smith, Kendall, and Hulin (1969).

factors were similar. The resulting factor reliabilities ranged from the low .17 and .33 of the "needs" factors to the respectable .84 of the Job-Challenge Expectations factor. The next section shows how these factors and scales were used to test the research hypotheses.

The Research Hypotheses

All the hypotheses stated in Chapter I (except Hypothesis 4) involve the interaction among graduates! personal job needs, first-job expectations, and first-job experiences. This section states each of the hypotheses from Chapter I in terms of the derived factors and, briefly, which statistical techniques were used to test them.

In general, analysis of variance (ANOVA) techniques were used to test the interaction effects between the independent variables of Job Needs, Job Expectations, and Job Experiences. Hypotheses 1, 2, and 3 (from Chapter I) predicted levels of satisfaction, success and turnover in terms of the interactions between these needs, expectations, and experiences and Work-Related Background. Hypotheses 5, 6, and 7 predicted outcomes of satisfaction, success and turnover in terms of interactions between needs, expectations, experiences and Performance Reviews.

The subscales were such that comparisons between similar factors could be readily made. Need for Achievement, Job-Challenge Expectations, and Job-Challenge Experiences contained similar items. Need for Security, Work-Setting Expectations, and

Work-Setting Experiences also contained similar items. The hypotheses which predicted interactions among Needs, Expectations, and Experiences were all tested using these sets of factors. Figure II-1 illustrates how these variables were used in the research tests.

Job Need	Job Expectations	Job Experiences
nAch	Job-Challenge Expectations	Job-Challenge Experiences
nSec	Work-Setting Expectations	Work-Setting Experiences

Figure II-1. -- Related sets of independent variables as used in this research.

The ANOVA procedures were performed by splitting the independent variables into "high" and "low" categories at the mean.

For example, Job-Challenge Expectations were split into high Job-Challenge Expectations (greater than the mean) and low Job-Challenge Expectations (less than the mean).

Analyses of variance are sensitive to sample sizes in the determination of significance (Nie, et al., 1975), so with a large sample size, as here (N = 1019), the more conservative the significance level accepted, the more confidence in the interpretation of the results. Therefore, techniques and significance levels were chosen to be as conservative as possible. A significance level of $p \le .05$ for a two-tailed test was generally used for all hypotheses.

All significant ANOVA interaction effects were further analyzed by examining the differences between the cell means. The most conservative test for differences (Scheffe's S test) was used for this stage of the analysis (Winer, 1962; Kirk, 1968). The alpha level for significant differences between cell means was .05.

The Hypotheses. The following is a restatement of the hypotheses which were suggested with the model that was developed in Chapter I. The hypotheses are stated using the factors described in the previous section of this chapter. In addition to this restatement each hypothesis will be followed by a statement of the statistical procedure used to test that hypothesis. In general, the following notation will be used to describe the ANOVA tests of the hypotheses:

Independent x Independent x Independent (etc.) on Dependent Variable Variable Variable Variable

HYPOTHESIS 1. Recent graduates will be more satisfied when they have a high amount of Work-Related Background prior to graduation and when their nAch, Job-Challenge Expectations, and Job-Challenge Experiences are congruent than will be the case for recent graduates who do not have this Work-Related Background and who do not have the congruence between their nAch, Job-Challenge Expectations and Job-Challenge Experiences.

ANOVA: Work-Related Background X nAch X Job-Challenge Expectations X Job-Challenge Experiences on Satisfaction (with Work, Supervision, People, Pay, and Promotion)

HYPOTHESIS 2. Recent graduates will be more satisfied when they have a high amount of Work-Related Background prior to graduation and when their nSec, Work-Setting Expectations, and Work-Setting Experiences are congruent than will be the case for recent graduates who do not have this Work-Related Background and who do not have the congruence between their nSec, Work-Setting Expectations and Work-Setting Experiences.

ANOVA: Work-Related Background X nSec X Work-Setting Expectations X Work-Setting Experiences on Satisfaction (with Wori, Supervision, People, Pay, and Promotion)

HYPOTHESIS 3. Recent graduates will be more successful when they have a high amount of Work-Related Background prior to graduation and when their nAch, Job-Challenge Expectations, and Job-Challenge Experiences are congruent than will be the case for recent graduates who do not have this Work-Related Background and who do not have the congruence between their nAch, Job-Challenge Expectations and Job-Challenge Experiences.

ANOVA: Work-Related Background X nAch X Job-Challenge Expectations X Job-Challenge Experiences on Success (Self-Perceived and Perceived Company Rating)

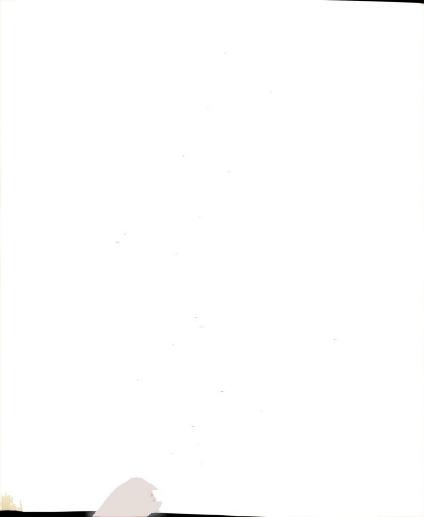
HYPOTHESIS 4. Recent graduates will be more successful when they have a high amount of Work-Related Background prior to graduation and when their nSec, Work-Setting Expectations and Work-Setting Experiences are congruent than will be the case for recent graduates who do not have this Work-Related Background and who do not have the congruence between their nSec, Work-Setting Expectations and Work-Setting Experiences.

ANOVA: Work-Related Background X nSec X Work-Setting
Expectations X Work-Setting Experiences on Success
(Self-Perceived and Perceived Company Rating)

HYPOTHESIS 5. Recent graduates will be less likely to leave when they have a high amount of Work-Related Background prior to graduation and when their nAch, Job-Challenge Expectations and Job-Challenge Experiences are congruent than will be the case for recent graduates who do not have this Work-Related Background and who do not have the congruence between their nAch, Job-Challenge Expectations and Job-Challenge Experiences.

ANOVA: Work-Related Background X nAch X Job-Challenge Expectations X Job-Challenge Experiences on Turnover

HYPOTHESIS 6. Recent graduates will be less likely to leave when they have a high amount of Work-Related Background prior to graduation and when their nSec, Work-Setting Expectations and Work-Setting Experiences are congruent than will be the case for recent graduates who do not have this Work-Related Background and who do not have the congruence between their nSec, Work-Setting Expectations and Work-Setting Experiences.



ANOVA: Work-Related Background X nSec X Work-Setting Expectations X Work-Setting Experiences on Turnover

HYPOTHESIS 7. Recent graduates' Job-Challenge Expectations in their current jobs will be more congruent with their current Job-Challenge Experiences than was the case for their Job-Challenge Expectations and Job-Challenge Experiences in their first jobs.

COMPARISON (Fisher's Z):

Pearson Correlation (Job-Challenge Expectations: first job with Job-Challenge Experiences: first job) and Pearson Correlation (Job-Challenge Expectations: current job with Job-Challenge Experiences: current job)

HYPOTHESIS 8. Recent graduates' Work-Setting Expectations for their current jobs will be more congruent with their current Work-Setting Experiences than was the case for their Work-Setting Expectations and Work-Setting Experiences in their first jobs.

COMPARISON (Fisher's Z):

Pearson Correlation (Work-Setting
Expectations: first job with WorkSetting Experiences: first job) and
Pearson Correlation (Work-Setting
Expectations: current job with WorkSetting Experiences: current job)

HYPOTHESIS 9. Recent graduates will be more satisfied when they receive a Performance Review and when their nAch, Job-Challenge Expectations, and Job-Challenge Experiences are congruent than will be the case for recent graduates who do not receive a Performance Review and who do not have the congruence between their nAch, Job-Challenge Expectations and Job-Challenge Experiences.

ANOVA: Performance Review X nAch X Job-Challenge Expectations X Job-Challenge Experiences on Satisfaction (with Work, Supervision, People, Pay, and Promotion)

HYPOTHESIS 10. Recent graduates will be more satisfied when they receive a performance Review and when their nSec, Work-Setting Expectations, and Work-Setting Experiences are congruent than will be the case for recent graduates who do not receive a Performance Review and who do not have the congruence between their nSec, Work-Setting Expectations and Work-Setting Experiences.

ANOVA: Performance Review X nSec X Work-Setting Expectations X Work-Setting Experiences on Satisfaction (with Work, Supervision, People, Pay, and Promotion)

HYPOTHESIS 11. Recent graduates will be more successful when they receive a Performance Review and when their nAch, Job-Challenge Expectations, and Job-Challenge Experiences are congruent than will be the case for recent graduates who do not receive a Performance Review and who do not have the congruence between their nAch, Job-Challenge Expectations and Job-Challenge Experiences.

ANOVA: Performance Review X nAch X Job-Challenge Expectations X Job-Challenge Experiences on Success (Self-Perceived and Perceived Company Rating)

HYPOTHESIS 12: Recent graduates will be more successful when they receive a Performance Review and when their nSec, Work-Setting Expectations, and Work-Setting Experiences are congruent than will be the case for recent graduates who do not receive a performance Review and who do not have the congruence between their nSec, Work-Setting Expectations, and Work-Setting Experiences.

ANOVA: Performance Review X nSec X Work-Setting Expectations X Work-Setting Experiences on Success (Self-Perceived and Perceived Company Rating)

HYPOTHESIS 13. Recent graduates will be less likely to leave when they receive a Performance Review and when their nAch, Job-Challenge Expectations and Job-Challenge Experiences are congruent than will be the case for recent graduates who do not receive a Performance Review and who do not have the congruence between their nAch, Job-Challenge Expectations and Job-Challenge Experiences.

ANOVA: Performance Review X nAch X Job-Challenge Expectations X Job-Challenge Experiences on Turnover

HYPOTHESIS 14. Recent graduates will be less likely to leave when they receive a Performance Review and when their nSec, Work-Setting Expectations, and Work-Setting Experiences are congruent than will be the case for recent graduates who do not receive a performance Review and who do not have the congruence between their nSec, Work-Setting Expectations and Work-Setting Experiences.

ANOVA: Performance Review X nSec X Work-Setting Expectations X Work-Setting Experiences on Turnover

Summary

This chapter has described the research design to test the hypotheses derived from the model developed in Chapter I. A questionnaire was administered to 1019 recent graduates and analyzed. Scales were derived to test the hypotheses. The results of the analyses of these data are reported in the next chapter.

CHAPTER III

RESULTS

This chapter reports the results of the analysis of data collected in the research project outlined in Chapter II. Generally, only the statistically significant results of the tests of the hypotheses will be reported in the chapter. Cell means and Scheffe's S test for differences between means are also reported where appropriate. (See Appendix C for the complete analysis of variance tables.)

Test of the Hypotheses

In the following paragraphs, each hypothesis will be stated in general form, along with the method of testing. Tables showing the significant results will immediately follow. Because the hypotheses concern the interactions between the independent variables, the highest-order significant interactions will be discussed. For hypothesis tests in which there were significant main effects, but no significant interaction effects, a brief discussion is given at the end of the chapter.

Hypothesis 1

The first hypothesis suggested that graduates with high levels of Work-Related Background prior to graduation and congruence between their nAch, Job-Challenge Expectations and Job-Challenge Experiences would be most satisfied. This hypothesis was tested with an analysis of variance of the interaction effects of nAch, Job-Challenge Expectations, Job-Challenge Experiences, and Work-Related Background on the aspects of satisfaction measured by the JDI: Work, Supervision, People, Pay, and Promotion. Tables III-1.0 displays the significant results of this test. Tables III-1.1, III-1.2, and III-1.3 show the cell means and Scheffe test of mean differences for the significant interaction effects.

Satisfaction with Work. Two interactions significantly affected Satisfaction with Work: (1) nAch with Job-Challenge Experiences; and (2) Job-Challenge Expectations with Job-Challenge Experiences. Table III-1.1 illustrates that when respondents experienced low levels of Job Challenge, whether their nAch was high or low, they reported high levels of satisfaction with their work. A slight crossover effect did occur, though, with satisfaction level increasing as the cell scores moved from high Need/low Experiences to low Need/low Experiences and, in the other direction, from low Need/high Experiences to high Need/high Experiences.

Table III-1.0--ANOVA Summaries for significant results of the effects on different aspects of satisfaction (H1).

Aspects of Satisfaction	Independent Variables	f
Work	Job-Challenge Expectations	69.205**
	Job-Challenge Experiences	317.870**
	nAch X Job-Challenge Experiences	5.564
	Job-Challenge Expectations X	4.770
	Job-Challenge Experiences	
Supervision	Job-Challenge Expectations	7.841*
	Job-Challenge Experiences	93.752**
People	Job-Challenge Experiences	108.399≮∗
Pay	Work-Related Background	7.430
	Work-Related Background X nAch	5.314
	Work-Related Background X nAch X	7.929*
	Job-Challenge Expectations X	
	Job-Challenge Experiences	
Promotion	Job-Challenge Expectations	8.180*
	Job-Challenge Experiences	84.453**

^{*} p < .01 ** p < .001 (all others, p < .05, two-tailed)

Table III-1.1.--Satisfaction-with-work cell means for ANOVA interaction effects between nAch and experiences with first-job challenge.

nA ch	Job-Challenge Experiences
Low	Low High
	17.122(A) 28.733(B)
	$\mathbf{n}=230 \hspace{1cm} \mathbf{n}=243$
High	15.114(C) 30.241(D)
	n = 255 $n = 291$

Differences Between the Cell Means

Cell Means	C _(15.1)	A _(17.1)	B _(28.7)	D(30.2)
High nAch/Low Experiences C (15.1)		2.0	13.6*	15.1*
Low nAch/Low Experiences A (17.1)			11.6*	13.1*
Low nAch/High Experiences B (28.7)				1.5
High nAch/High Experiences D (30.2)				

^{*}Significant Differences, Scheffe's S test, $\alpha = .05$.

Table III-1.2.--Satisfaction-with-work cell means for ANOVA interaction effects between job-challenge expectations and job-challenge experiences.

Job-Challenge Expectations	Job-Challen	ge Experience
	Low	High
Low		
	14.353(A)	23.924(B)
	n = 292	n = 193
High	18.658(C)	31.899(D)
	n = 157	n = 377

Differences Between the Cell Means

Cell Means	A _(14.4)	C _(18.7)	B _(23.9)	D _(31.9)
Low Expectations/Low Experiences A (14.4)		4.3*	9.6*	17.5*
High Expectations/Low Experiences C (18.7)			5.3*	13.2*
Low Expectations/High Experiences B (23.9)				8.0*
High Expectations/High Experiences D (31.9)				

^{*}Significant Differences, Scheffe's S test, α = .05.

Job-Challenge Experiences to affect satisfaction with work. As Table III-1.2 shows, each of these interaction-effect cell means is significantly different from all the others. When Job-Challenge Expectations were low and there was a low level of experienced Job Challenge, the lowest level of satisfaction with work occurred. High expectations with low experiences resulted in the second lowest level of work satisfaction. Low expectations and high Job-Challenge Experiences produced a higher satisfaction-with-work score. High expectations and high levels of experience were conditions under which the highest levels of satisfaction with work were found.

Work Related Background did not interact with the other variables. The part of the hypothesis that concerned congruence between the independent variables was only partially supported. Need for Achievement, Job-Challenge Expectations, and Job-Challenge Experiences did interact to produce high levels of satisfaction, but only when respondents reported high levels of these three variables. That is, when nAch was high, Job-Challenge Expectations were high, and Job-Challenge Experiences were high, then there were high levels of Satisfaction with Work. When there was congruence, but with low nAch, low Job-Challenge Expectations, and low Job-Challenge Experiences, then Satisfaction with Work was low.

Satisfaction with Supervision. There were no significant

interaction effects on satisfaction with supervision.

Satisfaction with People. There were no significant interaction effects on satisfaction with people.

Satisfaction with Pay. The highest order interaction effect on satisfaction with pay is reported in Table III-1.3, which reports the cell means for the different levels of the four independent variables tested in the hypothesis: nAch, Job-Challenge Expectations, Job-Challenge Experiences, and Work-Related Background. This interaction was significant ($p \le .01$) but the Scheffe S test did not reveal any significant differences between cell means.

An examination of the extreme points, though, shows that satisfaction with pay was highest when subjects reported (1) low nAch, low expectations for Job-Challenge, high experiences with Job-Challenge, and low Work-Related Background; and (2) high nAch, high Job-Challenge Expectations, high Job-Challenge Experiences, and low Work-Related Background. Satisfaction with Pay was lowest when respondents reported low nAch, high Job-Challenge Expectations, low Job-Challenge Experiences, and high Work-Related Background.

^{*}There were significant main effects, however. These are reported, as they may be of use in future research. But they are not discussed, here, because the hypotheses predicted only interaction effects. This holds true for several of the following hypotheses. The significant main effects are examined, briefly, at the end of the chapter, for those situations where there were no significant interaction effects. Throughout this chapter, an asterisk will refer to these situations where there were only significant main effects.

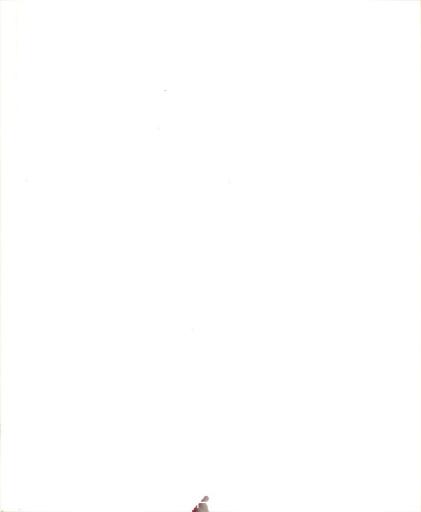


Table III-1.3. --Satisfaction-with-pay cell means* for ANOVA interaction effects between workrelated background nAch, expectations for first-job challenge and experienced first-job challenge.

nAch	Job-Challenge Expectations	Job-Challenge Experiences	Work-F Backs	telated ground
	Low	Low	Low 14.132	High 13.411
Low	-	High	16.000	14.262
2011	High	Low	14.780	12.846
		High	15.086	14.709
	Low	Low	15.606	14.300
High	-	High	14.462	13.690
	High	Low	13.719	15.149
	rugu _	High	16.045	14.878

^{*} No significant differences, Scheffe's S test, α = .05.

These data do not support the hypothesis. Evidently, high levels of Work-Related Background led these subjects to react less favorably to their pay than was the case for respondents with lower levels of Work-Related Background. This was even the case for graduates with high achievement needs who experienced jobs high in the challenge and achievement they expected.

Satisfaction with Promotion. There were no significant interaction effects on satisfaction with promotion.

Hypothesis 2

The second hypothesis stated that respondents would be most satisfied when they had high levels of Work-Related Background prior to graduation and when there was congruence between their nSec, Work-Setting Expectations, and Work-Setting Experiences. The significant results of the analysis of variance are reported in Table III-2.0.

Satisfaction with Work. There were no significant interaction effects on satisfaction with work.

Satisfaction with Supervision. There was a significant interaction effect between Work-Setting Expectations and Work-Setting Experiences on satisfaction with supervision. Table III-2.1 reports the cell means and differences between cell means for different levels of the independent variables.

^{*} See note, p. 50.

Table III-2.0--ANOVA Summaries for significant result of the effects on different aspects of satisfaction (H2)

Aspects of Satisfaction	Independent Variables	f
Work	Work-Setting Expectations	28.187**
	Work-Setting Experiences	127.565**
Supervision	Work-Setting Expectations	15.253**
	Work-Setting Experiences	293.034**
	Work-Setting Expectations X	4.361
	Work-Setting Experiences	
People	Work-Setting Expectations	22.378**
	Work-Setting Experiences	79.640**
	Work-Related Background X nSec	3.844
	Work-Setting Expectations X	
	Work-Setting Experiences	6.711*
Pay	Work-Related Background	7.430*
	Work-Setting Expectations	5.500
	Work-Setting Experiences	32.977**
Promotion	nSec	5.066
	Work-Setting Expectations	23.789**
	Work-Setting Experiences	165.296**

^{*} $p \le .01$ ** $p \ge .001$ (all others, $p \le .05$, two-tailed)

Table III-2.1.--Satisfaction-with-supervision cell means for ANOVA interaction effects between work-setting expectations and work-setting experiences.

Work-Setting Expectations	Work-Setting	g Experiences
Low	Low	High
	22.482(A)	34.916(B)
	n = 276	n=214
High	23.204(C)	39.055
-	n = 147	n = 382

Differences Between the Means

Cell Means	A _(22.5)	C _(23.2)	B(34.9)	D _(39.1)
Low Expectations/Low Experiences A (22.5)		.7	12.4*	16.6*
High Expectations/Low Experiences C (23.2)			11.7*	15.9*
Low Expectations/High Experiences B (34.9)				4.2*
High Expectations/High Experiences D (39.1)				

^{*}Significant Differences, Scheffe's S test, α = .05.

When Work-Setting experiences were low and levels of expectations for the Work-Setting were either high or low, satisfaction with supervision was low. Satisfaction was highest when expectations were high and individuals reported high levels of experience with the work-setting. Low Work-Setting Expectations and high Work-Setting Experiences were associated with the next highest level of satisfaction. When subjects were low in Work-Setting Experiences, the level of expectations had no effect. But when experiences with the work-setting were good (high), then expectations made a difference, with the lower level of expectation being associated with a lower level of satisfaction with supervision. When high expectations were met, satisfaction was the highest.

Satisfaction with People. There was also a significant interaction effect among the independent variables on satisfaction with people. Respondents' expectations for the Work-Setting and their Work-Setting Experiences interacted significantly to affect levels of satisfaction with people. Table III-2.2 reports these results. Again, when respondents reported low levels of experience with the Work-Setting, they reported low levels of satisfaction, no matter what they reported for Work-Setting expectations. The highest level of satisfaction with people was reported when respondents had high expectations which were met by high levels of experienced Work-Setting. Low expectations and high levels of Work-Setting Experiences interacted to produce a mid-range level of satisfaction.

Table III.2.2.—Satisfaction-with-people cell means for ANOVA interaction effects between work-setting expectations and work-setting experiences.

Work-Setting Expectations	Work-Setting Experiences
Low	Low High
	28.493(A) 34.061(B) n = 276 n = 214
High	30.102(C) 38.788(D) n = 147 n = 382

Differences Between the Cell Means

Cell Means	A _(28.5)	C _(30.1)	B _(34.1)	D _(38.8)
Low Expectations/Low Experiences A (28.5)		1.6	5.6*	10.3*
High Expectations/Low Experiences C (30.1)			4.0*	8.7*
Low Expectations/High Experiences B (34.1)				4.7*
High Expectations/High Experiences D (38.8)				

^{*}Significant Differences, Scheffe's S test, $\alpha = .05$.

Table III-2.0 also reports that Work-Related Background interacted with nSec to significantly effect satisfaction with people. This interaction was not further analyzed because it was not an interaction which was addressed by the hypothesis.

Satisfaction with Pay. There were no significant interaction effects on satisfaction with pay.

Satisfaction with Promotion. There were no significant interaction effects on satisfaction with promotion.

Hypothesis 3

Hypothesis 3 predicted that graduates would report their highest levels of perceived success when they had high Work-Related Background prior to graduation and when they reported congruence between their nAch, Job-Challenge Expectations, and Job-Challenge Experiences. This hypothesis was tested with an analysis of variance. Success was measured with both respondents, feelings about their success and their perceptions of how they thought the Company was rating them. Table III-3.0 reports the significant results of these tests.

Self-Perceived Success. There were no significant interaction effects on self-perceived levels of success that related to the hypothesis. * Work-Related Background interacted with Job-Challenge

^{*} See note p. 50.

Table III-3.0.--ANOVA Summaries for the significant results of the effects on aspects of perceived success (H3)

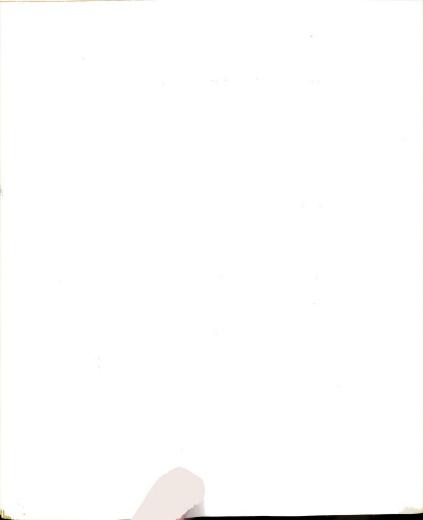
Dependent Variable	Independent Variables	f
Self-Perceived Success	Work-Related Background	9.100*
	Work-Related Background X Job-Challenge Expectations	6.929*
Perceived Company Rating	Work-Related Background Job-Challenge Experiences	8.859* 4.292

^{*}p < .01
(all others, p < .05, two-tailed)

Table III-4.0.--ANOVA Summaries for the significant results of the effects on aspects of perceived success (H4)

Dependent Variable	Independent Variable	f
Self-Perceived Success	Work-Related Background	9.100*
	Work-Setting Experiences	25.962**
Perceived Company Rating	Work-Related Background	8.859*
	Work-Setting Experiences	51.712**

^{*}p < .01



Expectations to significantly effect self-perceived success. But the hypothesis only concerned Work-Related Background as it related to congruence between nAch, Job-Challenge Expectations and Job-Challenge Experiences.

Perceived Company Rating. There were no significant interaction effects on respondents' perceptions of the Company's rating of their success.*

Hypothesis 4

The fourth hypothesis stated that respondents' highest levels of perceived success would be reported when they had high levels of Work-Related Background prior to graduation and when their nSec, Work-Setting Expectations and Work-Setting Experiences were congruent. Table III-4.0 shows the significant results of the test of this hypothesis. There were no significant analysis of variance interaction effects on either respondents' Self-Perceived Success or their Perceived Company Ratings.

Hypothesis 5

Hypothesis 5 stated that graduates would be least likely to leave their companies under the following circumstances: when they had high levels of Work-Related Background prior to graduation, and

^{*} See note p. 50.

when they reported congruence between their levels of nAch, Job-Challenge Experiences. The Challenge Experiences. The hypothesis was tested with an analysis of variance of these four independent variables on the act of termination. Table III-5.0 shows the significant results of this test.

Table III-5.0.--ANOVA summaries for the significant results the effects on turnover (H5).

Dependent Variable	Independent Variable	f
Turnover	nAch	4.285
	Job-Challenge Experiences	34.236*
	Work-Related Background X nAch X Job-Challenge Experiences	6.377

^{*} p \leq .001 (all others, p \leq .05, two-tailed).

There was one significant interaction effect on turnover.

Work-Related Background, nAch, and Job-Challenge Experiences interacted to significantly affect terminations. Table III-5.1 shows the cell means for this interaction. Because of the way turnover was scored (termination = 1; non-termination = 2), high scores mean a lower level of turnover and low scores mean a higher level of turnover. None of the differences between the cell means were significant. An examination of the cell means indicates that turnover was most likely to occur (the low scores) when respondents reported high nAch, low Job-Challenge Experiences, and high

Work-Related Background. Turnover was least likely to result (high scores) when respondents were low in nAch and had high levels of experienced Job-Challenge. High levels of Work-Related Background prior to graduation consistently were associated with higher levels of turnover (the low scores), under each of the combinations of nAch and Job-Challenge Experiences. These results do not support the hypothesis.

Table III-5.1.--Turnover cell means * for ANOVA interaction effects between work-related background, nAch, and job-challenge experiences**.

nAch	Job-Challenge Experiences	Work-Relate	ed Background
Low	Low	Low 1.500	High 1.438
Low	High	1.635	1.602
U:~h	Low	1.422	1.362
High	High	1.576	1.564

^{*}High scores mean low turnover; low scores mean high turnover.

^{**}No significant differences, Scheffe's S test, $\alpha = .05$.

Hypothesis 6

This hypothesis also dealt with turnover. It predicted that respondents would be least likely to leave when they had high levels of Work-Related Background prior to graduation and had congruence between their nSec, Work-Setting Expectations and Work-Setting Experiences. This hypothesis was tested with an analysis of variance. Table 111-6.0 shows the significant results of this test.

Table III-6.0--ANOVA summaries for the significant results of the effects on turnover (H6).

Dependent Variable	Independent Variables	f
Turnover	Turnover nSec	
	Work-Setting Experiences	17.619**
	Work-Related Background X nSec X Work-Setting Expectations X Work- Setting Experiences	4.194

^{*} $p \leq .01$

Table III-6.1 gives the cell means for the one significant interaction effect. Again, low scores mean high turnover; high scores mean low turnover. Scheffe's S test did not reveal any significant differences between the cell means. Examination of the cell means, however, shows that turnover was most likely to occur

^{**} $p \le .001$ (all others $p \le .05$, two-tailed)

Table III-6.1.--Turnover cell means* for ANOVA interaction effects between nSec, work-setting expectations, work-setting experiences, and work-related background**

nSec	Work-Setting Expectations	Work-Setting Experiences	Work-Related Background		
	Low	Low	Low 1.443	High 1.301	
Low		High	1.601	1.597	
26	High	Low	1.324	1.273	
		High	1.523	1.511	
	Low	Low	1.471	1.477	
High _		High	1.656	1.526	
	Low	Low	1.564	1.519	
High	_	High	1.656	1.526	
	High	Low	1.564	1.519	
	6	High	1.604	1.638	

^{*}High scores mean low turnover; low scores mean high turnover.

^{**}No significant differences, Scheefe's S test, $\alpha = .05$.

when: (1) respondents reported low nSec, low Work-Setting Expectations, low Work-Setting Experiences and high Work-Related Background; and (2) when they reported low nSec, high Work-Setting Expectations, low Work-Setting Experiences, and high Work-Related Background. Turnover was least likely to result when experiences with the Work-Setting were high. The lowest level of turnover occurred when nSec was high, expectations for the Work-Setting were low, experienced Work-Setting was high, and respondents had low Work-Related Background prior to graduation.

One of these cells does support the hypothesis: turnover was quite low (not significantly different from the lowest level of turnover) when individuals had high nSec, high expectations for the Work-Setting, high Work-Setting Experiences and high levels of Work-Related Background prior to graduation. That is to say, respondents were least likely to leave when they had high amounts of Work-Related Background and also had congruence between their needs, expectations, and experiences. This was the prediction of the hypothesis.

Hypothesis 7

Hypotheses 7 and 8 were tested with correlational techniques.

The seventh hypothesis predicted that the correlation between graduates

Job-Challenge Expectations and Job-Challenge Experiences would

be higher for presently-held jobs than was the case for their first jobs after graduation. It was being suggested that graduates would be learning about themselves and their organizations in such a way that they would be more able to form realistic expectations about their present jobs than they were able to do when they first went to work after graduation. They would have less dissonance between their expectations and experiences now (the time of the questionnaire) than they had when they first went to work.

Table III-7.0 reports these correlations. The correlations between respondents' Job-Challenge Expectations and Job-Challenge Experiences in their first jobs was .46. The correlation between these two variables for their present jobs was .89. The difference between these is significant ($p \le .05$). The results supported the hypothesis.

Table III-7.0--Pearson correlation coefficients between job expectations and job experiences for respondents! first and present jobs (H7 and H8).

Variables	r(first job)	r(present job)
Job-Challenge Expectations/ Job-Challenge Experiences*	. 46	. 89
Work-Setting Expectations/ Work-Setting Experiences**	. 33	. 88

^{*} Fisher's Z = 20.7

^{**} Fisher's Z = 23.1

 $⁽Z = 1.96 \text{ is significant at } p \leq .05)$

Hypothesis 8

This hypothesis predicted that the correlation between respondents' Work-Setting Expectations and Work-Setting Experiences would be higher in their present jobs than was the case in their first jobs. These results are also presented in Table III-7.0. The correlation between the first-job expectations and experiences with the Work-Setting was .33. For subjects' current jobs, the correlation was .88. These correlations are significantly different ($p \le .05$). These results support the hypothesis.

Hypothesis 9

Hypothesis 9 was the first of a series of hypotheses which dealt with the impact of performance appraisals on graduates' satisfaction, success and turnover. These hypotheses also involve respondents' needs, expectations, and experiences, just as did hypotheses 1 through 6. The ninth hypotheses suggested that graduates would be most satisfied with their jobs when they received a performance review and when they had congruence between their nAch, Job-Challenge Expectations, and Job-Challenge Experiences. Table III-8.0 reports the significant results of the analysis of variance test.

Table III-8.0.--ANOVA Summaries for the significant results of the effects on different aspects of satisfaction (H9)

Aspects of Satisfaction	Independent Variables	f
Work	Performance Review	10.952**
	Job-Challenge Expectations	67.674**
	Job-Challenge Experiences	309.611**
	nAch X Job-Challenge Experiences	4.649
	Job-Challenge Expectations X	5.621
	Job-Challenge Experiences	
Supervision	Performance Review	6.058
Supervision	Job-Challenge Expectations	6.878*
	Job-Challenge Experiences	88.170**
People	Job-Challenge Experiences	106.883**
Pay	Performance Review X	5,900
·· ,	Job-Challenge Expectations	
	nAch X Job-Challenge Experiences	3.851
Promotion	Job-Challenge Expectations	7.365*
	Job-Challenge Experiences	81.763**

^{*} $p \le .01$ ** $p \le .001$ (all others, $p \le .05$, two-tailed)

Comparison of this table with Table III-1.0 (which was a similar hypothesis, including Work-Related Background instead of Performance Reviews) reveals that the Performance Review variable adds no new significant interaction effects to the results of the analysis of variance. Performance Review does interact with Job-Challenge Expectations to effect satisfaction with pay, but this result was not addressed by the hypothesis. The hypothesis only dealt with Performance Reviews in conjunction with congruent needs, expectations, and experiences.

Table III-8.0 does indicate that nAch and Job-Challenge Experiences do interact to significantly effect satisfaction with pay. This result did not appear in the test of Hypothesis 1. These two variables interacted significantly, here, and not in the earlier test because the Work-Related Background component of the total Sums of Squares was much greater than the Performance Review Component.

Table III-8.1 reports the cell means for this interaction effect. There were no significant differences between the cell means as tested by Scheffe's S test. The extreme cell means, though, show that lowest satisfaction with pay occurred when respondents were low in nAch and had low experienced Job-Challenge. And they were highest in satisfaction with their pay when they were high in nAch and experienced high Job-Challenge.

Table III-8.1.--Satisfaction with pay cell means for ANOVA interaction effect between nAch* and Job-Challenge Experiences*.

nAch	Job-Challeng	Job-Challenge Experiences				
	Low	High				
Low	13.826	14.938				
High	14.690	15.100				

^{*} No significant differences, Scheffe's S test, $\alpha = .05$.

This hypothesis was not supported by the results. Performance Reviews did not produce any significant interactions with the other variables. And only to a limited extent did they show any direct effect on levels of satisfaction, when Performance Reviews had significant main effects on satisfaction with the work and with supervision.

Hypothesis 10

This hypothesis stated that respondents would be most satisfied when they had a Performance Review and when there was congruence between their nSec, Work-Setting Expectations, and Work-Setting Experiences. Table III-9.0 reports the significant results of the analysis of variance on the different aspects of satisfaction. Performance Review does interact significantly with other variables in these results.

Table III-9.0.--ANOVA Summaries for the significant results of the effects on different aspects of satisfaction (H10)

Aspects of Satisfaction	Independent Variables	f		
Work	Performance Review	10.952*		
	Work-Setting Expectations	28.031*		
	Work-Setting Experiences	122.707*		
	Performance Review X Work-	4.714		
	Setting Expectations X			
	Work-Setting Experiences			
Supervision	Performance Review	6.058		
	Work-Setting Expectations	14.973*		
	Work-Setting Experiences	284.620*		
	Performance Review X Work-	5.834		
	Setting Expectations X			
	Work-Setting Experiences			
People	Work-Setting Expectations	22.288*		
-	Work-Setting Experiences	78.050*		
	Performance Review X Work-	4.306		
	Setting Experiences			
	Work-Setting Expectations X	5.635		
	Work-Setting Experiences			
Pay	Work-Setting Expectations	4,927		
•	Work-Setting Experiences	30.609*		
Promotion	nSec	4.182		
	Work-Setting Expectations	23.188*		
	Work-Setting Experiences	158.609*		

^{*}p = .001
(all others, p = .05, two-tailed)

Satisfaction with Work. Performance Review interacted with expectations for the Work-Setting and experiences with the Work-Setting to significantly affect satisfaction with work. Table III-9.1 reports the cell means and differences between the cell means for this interaction.

As this table shows, the highest level of satisfaction with work occurred when respondents reported high expectations for the Work-Setting, high experienced Work-Setting, and also received a Performance Review. This supports the hypothesis. Satisfaction with work was lowest when respondents had low expectations for the Work-Setting, had low experienced Work-Setting, and did not receive a Performance Review.

Because previous researchers and authors had not distinguished between met-expectations when those expectations were for high levels of some job facet and met-expectations when those expectations were for low levels of job facets, the hypotheses in this research project did not, either. The hypotheses merely speculated about congruent expectations and experiences. These results reinforce other results in this research that indicate that met-expectations when the expectations are for high levels of job facets produce different results (high levels of satisfaction and success and low turnover) than is the case when the met-expectations are for low levels of job facets (resulting in low satisfaction and success and high turnover).

Table III-9.1.--Satisfaction-with-work cell means for ANOVA interaction effects between performance review, work-setting expectations and work-setting experiences.

Work-Setting Expectations	Work-Setting Experiences	Performance Review		
		Yes	No	
I.e.,	Low	17.233(A) n = 210	12.969(B) n = 64	
Low	High	24.574(C) n = 169	23.093(D) n = 43	
115 ml	Low	20.336(E) n = 107	20.000(F) n = 38	
High	High	29.191(G) n = 320	25.016(H) n = 61	

Differences Between The Cell Means

Cell Means	B(13.0)	A _(17.2)	F(20.0) E(20.3) ^D	(23.1)	(24.6) ^H	(25.0)	G _(29.2)
Low Expectations/Low Experience	es/							
No Performance Review	B _(13.0)	4.2	7.0 *	7.3*	10.1*	11.6*	12.0*	16.2*
Low Expectations/Low Experience	es/							
Yes Performance Review	A _(17.2)		2.8	3.1	5.9	7.4*	7.8*	12.0*
High Expectations/Low Experienc	es/							
No Performance Review	F _(20.0)			.3	3.1	4.6	5.0	9.2*
High Expectations/Low Experienc	es/							
Yes Performance Review	E _(20.3)				2.8	4.3	4.7	8.9*
Low Expectations/High Experienc	es/				· · · · · · · · · · · · · · · · · · ·			
No Performance Review	D _(23.1)					1.5	1.9	6.1*
Low Expectations/High Experienc	es/							
Yes Performance Review	C _(24.6)						.4	4.6
High Expectations/High Experience	ces/							
No Performance Review	H _(25.0)							4.2
High Expectations/High Experience	ces/							
Yes Performance Review	G _(29.2)							

^{*}Significant Differences, Scheffe's S test, $\alpha = .05$.

Satisfaction with Supervision. These results are similar to those obtained for satisfaction with work. Expectations and experiences with the Work-Setting interacted with Performance Review to significantly affect satisfaction with supervision. Table III-9. 2 shows the cell means and significant differences between those means for this interaction effect.

The highest level of satisfaction with supervision occurred when there were high expectations for the Work-Setting and high levels of experience with the Work-Setting and when respondents received a Performance Review. The lowest level of satisfaction resulted when there was congruence between expectations and experiences at low levels and when respondents did not receive a Performance Review. Again, this demonstrates that congruence between expectations and experiences may have different effects for high levels of some job facets (such as aspects of the Work-Setting) than for low levels of those job facets.

Satisfaction with People. There were no significant interaction effects on satisfaction with people that related to Hypothesis 10.

The significant interaction between Performance Review and Work-Setting Experiences was not considered by the Hypothesis. The interaction between expectations and experiences was examined in Hypothesis 2.

Table III 9.2.—Satisfaction-with-supervision cell means for ANOVA interaction effect between performance review, work-setting expectations and work-setting experiences.

Work-Setting Expectations	Work-Setting Experiences	Performance Review		
		Yes	No	
Low	Low	23.424(A) n = 210	19.375(B) n = 64	
	High	34.314(C) n = 169	36.884(D) n = 43	
	Low	23.869(E) n = 107	21.079(F) n = 38	
High	High	39.537(G) n = 320	36.754(H) n = 61	

Differences Between The Cell Means

Cell Means	B(19.4)	F _(21.1)	A(23.4)	E(23.9)	C(34.3) ^H	(36.8) ^D	(36.9)	G _(39.5)
Low Expectations/Low Experiences	:/							
No Performance Review	B _(19.4)	1.7	4.0	4.5	14.9*	17.4*	17.5*	20.1*
High Expectations/Low Experience	:s/							
No Performance Review	F _(21.1)		2.3	2.8	13.2*	15.7*	15.8*	18.4*
Low Expectations/Low Experiences								
Yes Performance Review	A (23.4)			.5	10.9*	13.4*	13.5*	16.1*
High Expectations/Low Experience	:s/							
Yes Performance Review	E _(23.9)				10.4*	12.9*	13.0*	15.6*
Low Expectations/High Experience	:s/							
Yes Performance Review	C _(34.3)					2.5	2.6	5.2*
High Expectations/High Experience	es/							
No Performance Review	H _(36.8)						.1	2.7
Low Expectations/High Experience	s/							
No Performance Review	D _(36.9)							2.6
High Expectations/High Experience	es/							
Yes Performance Review	G _(39.5)							

^{*}Significant Differences, Scheffe's S test, $\alpha = .05$.

Satisfaction with Pay. There were no significant interaction effects on satisfaction with pay.*

Satisfaction with Promotion. There were no significant interaction effects on satisfaction with promotion.*

Hypothesis 11

Hypothesis 11 suggested that graduates would feel most successful when they received a Performance Review and when they had congruence between nAch, expectations for Job-Challenge and experiences with Job-Challenge. Table III-10.0 reports the significant results of this test. As that table shows, the only significant results occurred in relation to Self-Perceived Success.

Table III-10.1 shows the cell means for the significant interaction effect of nAch, Job-Challenge Expectations, Job-Challenge
Experiences, and receipt of a Performance Review on Self-Perceived
Success. There were no significant differences between the means.

An examination of the extreme scores indicates that subjects felt least successful when they were low in nAch, had low expectations for Job-Challenge, experienced high levels of Job-Challenge, and did not receive a Performance Review. They also felt unsuccessful when they were high in nAch, had high expectations for Job-Challenge, experienced low levels of Job-Challenge, and did not

^{*} See note p. 50.

Table III-10.0--ANOVA Summaries for the significant results of the effects on perceived success (H11).

Dependent Variable	Independent Variables	f
Self-Perceived Success	Performance Review	4.871
	Performance Review X nAch X Job-Challenge Expectations	5.165
	Performance Review X nAch X Job-Challenge Expectations X Job-Challenge Experience	4.302
Perceived Company Rating	No Significant Results	

^{*} $p \le .05$, two-tailed.

Table III-10.1--Self Perceived success cell means * for ANOVA interaction effect between nAch,

Job-Challenge Expectations, Job-Challenge Experiences, and Performance Review.

nAch	Job-Challenge Expectations	Job-Challenge Experiences	Performance Review	
			Yes	No
	Low	Low	14.043	13.000
Low		High	13.552	12.667
	Hìgh	Low	13.493	14.600
		High	14.141	14.000
	Low	Low	13.843	13.438
High		High	14.377	13.316
- 6	High	Low	14.167	12.769
		High	14.359	13.889

^{*}No significant differences, Scheffe's S test, X = .05.

receive a Performance Review. Thus, both when respondents were low in needs and expectations but experienced high job challenge and when they were high in needs and expectations but experienced low job challenge, if they did not receive a performance appraisal, they felt unsuccessful. The lack of a performance review was evidently critical in these graduates' responses to how well they thought they were doing.

The highest level of Perceived Success occurred when respondents reported low nAch, high expectations for Job-Challenge, low experienced Job-Challenge, and did not receive a Performance Review. The congruence of high nAch, high Job-Challenge Expectations, high Job-Challenge Experiences, coupled with the receipt of a performance appraisal resulted in a high level of Perceived Success, as predicted by the hypothesis, though this was just slightly less than the highest level of perceived success. Generally, the receipt of a Performance Review produced higher levels of perceived success than was the case when feedback of this type was not received.

Hypothesis 12

This hypothesis predicted that respondents would feel most successful when they received a Performance Review, and when they had congruence between their security needs, Work-Setting Expectations and Work-Setting Experiences. This was tested with an ANOVA of these four independent variables on the two measures

of perceived success. Table III-11.0 reports the significant results of this ANOVA procedure. As the table indicates, there were no significant interaction effects on either of the success measures.

Table III-11.0.--ANOVA summaries for the significant results of the effects on perceived success (H12).

Dependent Variable	Independent Variables	f
Self-Perceived Success	Performance Review Work-Setting Experiences	4.871 23.758*
Perceived Company Rating	Work-Setting Experiences	47.687*

^{*} $p \le .001$ (all others, $p \le .05$)

Hypothesis 13

Hypothesis 13 stated that graduates would be least likely to leave the organization if they received a Performance Review and if their nAch, Job-Challenge Expectations, and Job-Challenge Experiences were congruent. Table III-12.0 shows the significant results of the analysis of variance. The only significant result involving an interaction with Performance Review (Performance Review and Job-Challenge Experiences) is not discussed because the hypothesis did not consider this particular interaction.

Table III-12.1 reports the cell means for the interaction between nAch, Job-Challenge Expectations, and Job-Challenge

^{*} See note p. 50.

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Table III-12.0.--ANOVA Summaries for the significant results of the effects on turnover (H13)

Dependent Variable	Independent Variables	f
Turnover	Performance Review	7.988*
	Job-Challenge Experiences	32 . 544**
	Performance Review X	6.876*
	Job-Challenge Experiences	
	nAch X Job-Challenge	4.873
	Expectations X Job-	
	Challenge Experiences	

^{*} p < .01

(all others, $p \le .05$, two-tailed)

Table III-12.1.--Turnover cell means * for ANOVA interaction effect between nAch, Job-Challenge Experiences**

nAch	Job-Challenge Expectations	Job-Challenge Experiences		
Low	Low	Low High 1.504 1.618		
	High	1.416 1.617		
High	Low	1.351 1.543		
	High	1.452 1.581		

^{*} High scores mean low turnover; low scores mean high turnover

 $^{**}_{p} = .001$

^{**} No significant differences, Scheffe's S test, α = .05

Experiences. There were no significant differences between the means, as tested with Scheffe's S test. This interaction was not significant when these variables were analyzed in Hypothesis 5 because, again, of the smaller contribution of Performance Review to the total sums of squares than Work-Related Background.

An examination of the extreme scores, here, demonstrates that turnover was least likely to occur (the high scores) when respondents reported high levels of experienced Job-Challenge. And respondents were most likely to leave when they experienced low levels of Job-Challenge. The highest turnover occurred for subjects with high nAch, low Job-Challenge Expectations, and low Job-Challenge Experiences. The lowest turnover was observed for respondents with low nAch, high and low Job-Challenge Expectations, and high Job-Challenge Experiences. These results do not support the hypothesis.

Hypothesis 14

The last hypothesis stated that turnover would be least likely when graduates received a Performance Review and when there was congruence between their security needs, Work-Setting Expectations and Work-Setting Experiences. Table III-13.0 shows the results of this analysis of variance. Due to the different main-effect impacts of Work-Related Background (as examined in Hypothesis 6) and

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Table III-13.0.--ANOVA Summaries for the significant results of the effects on turnover (H14)

Dependent Variable	Independent Variable	f
Turnover	Performance Review	7.988*
	nSec	10.140**
	Work-Setting Experiences	15 .754 **
	nSec X Work-Setting	3.875
	Expectations	
	Performance Review X	5.462
	nSec X Work-	
	Setting Experiences	

^{*} $p \le .01$ ** $p \le .001$ (all others, $p \le .05$, two-tailed)

Table III-13.1.--Turnover cell means * for ANOVA interaction effect between nSec and WorkSetting Expectations **

nSec	Work-Settin	g Expectations
Low	Low	High
2011	1.473	1.530
High	1.447	1.603

^{*} High scores mean low turnover; low scores mean high turnover.

^{**} No significant differences, Scheffe's S test, $\alpha = .05$

Performance Reviews, nSec interacted significantly with Work-Setting Expectations in this analysis but not in the test of Hypothesis 6.

Table III-13.1 reports the cell means for the interaction between nSec and Work-Setting Expectations. There were no significant differences between the cell means. An examination of the cell means shows that turnover was least likely to occur (the highest score) when nSec was high and when expectations for the Work-Setting was also high. This supports the hypothesis in terms of the predicted impact of congruence between needs and expectations.

Turnover was most likely (the low scores) when respondents expected low levels of Work-Setting (slightly more likely when they were high in nSec than when they were low in nSec).

Table III-13.2 reports the cell means for the significant interaction effect on security needs, Work-Setting Experiences and Performance Reviews on Turnover. Only the difference between low nSec/low experienced Work-Setting/no Performance Review and high nSec/high experienced Work-Setting/yes Performance Review was significant. These were the two extremes. Turnover was most likely when respondents were low in nSec, experienced low levels of Work-Setting and did not receive a Performance Review. Turnover was least likely to occur when they were high in nSec, experienced high levels of Work-Setting, and did receive a Performance Review. These results partially support the hypothesis.

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Table III-13.2.--Turnover cell means* for ANOVA interaction effects between nSec, work-setting experiences and performance reviews.

nSec	Work-Setting Experiences	Performance Review		
	Low	Yes 1.377(A) n = 167	No 1.259(B) n = 54	
Low	High	1.563(C) n = 240	1.510(D) n = 49	
III.	Low	1.513(C) n = 150	1.458(F) n = 48	
High	High	1.647(G) n = 249	1.491(H) n = 55	

^{*}High scores mean low turnover; low scores mean high turnover.

Differences Between The Cell Means

Cell Means	B _(1.3) A _(1.4)	^F (1.5)	H _(1.5)	D _(1.5)	E _(1.5)	C _(1.56)	G (1.65)
Low nSec/Low Experiences/							
No Performance Review B (1.3)	.1	.2	. 2	.2	.2	.26	.35*
Low nSce/Low Experiences/							
Yes Performance Review A (1.4))	.1	.1	.1	.1	.16	.25
High nSec/Low Experiences/							
No Performance Review F (1.5)						.06	.15
High nSec/High Experiences/							
No Performance Review H (1.5)						.06	.15
Low nSec/High Experiences/							
No Performance Review D (1.5)						.06	.15
High nSec/Low Experiences/							
Yes Performance Review E (1.5)						.06	.15
Low nSec/High Experiences/							
Yes Performance Review C (1.50	5)						.09
High nSec/High Experiences/							
Yes Performance Review G (1.65	5)						

^{*}Significant Difference, Scheffe's S test, $\alpha = .05$.

Main Effects

The model of relationships used in this project was developed from previous research and literature. Basically, it hypothesized interactions between a number of independent variables to produce varying levels of employee satisfaction, success, and turnover. Until now, the discussion has concerned only these hypothesized interactions. Many of these relationships were not found to be statistically significant.

The analyses of variance indicated that many of the observed effects were not as complex as anticipated. As the results reported in this chapter have shown, there were a number of situations in which there were no interaction effects as hypothesized. In some of the situations, the independent variables produced only main effects on the dependent variables.

These significant main effects have been reported throughout the chapter. It is the intent, here, to briefly discuss those situations where there were no significant interaction effects. That is, it is the intent, here, to look at those situations in which the analysis only produced significant main effects. Table III-14.0 summarizes the results from those situations.

Need for Security. This variable had very limited effects.

Its single main effect was on satisfaction with promotion--an outcome which is frequently aligned with feelings of security.

Respondents with high need for security reported higher levels of satisfaction with promotion than did those with lower nSec.

Job-Challenge Expectations. Expectations appeared to most significantly affect one's levels of satisfaction. Other variables (such as job experiences) also seemed to affect one's feelings of success and propensity to leave. Graduates with high expectations for Job-Challenge reported higher levels of satisfaction with their supervision and promotions. Graduates with lower Job-Challenge expectations were less satisfied with these two aspects of their jobs.

Job-Challenge Experiences. The two "experiences" factors had significant main effects on a number of dependent variables. Individuals who experienced jobs high in Job-Challenge reported more satisfaction with supervision, people, and promotion and perceived the Company to rate them more successful than those with low Job-Challenge experiences.

Work-Setting Expectations. Work-Setting expectations had main effects on levels of satisfaction but not on the other dependent variables. Graduates with high expectations about the work-setting reported higher levels of satisfaction with their work, pay and promotions than did those with low Work-Setting expectations.

Work-Setting Experiences. This independent variable had a main effect on satisfaction with work, pay, and promotion and both measures of perceived success. Those with high work-setting

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experiences were higher in satisfaction with work, pay, and promotion and in perceived success than those who experienced jobs with a lower work-setting.

Work-Related Background. Graduates' backgrounds did not demonstrate much influence on the dependent variables. Where there was a highest-order main effect, high levels of work-related background produced varying results. Graduates with high work-related background reported lower levels of satisfaction with their pay but higher levels of perceived success. Conversely, those with low work-related background reported higher satisfaction with their pay and lower perceptions of success.

Performance Reviews. The receipt of feedback via a performance review had a significant, highest-order, main effect on satisfaction with work and supervision and perceived success. Respondents who received performance reviews reported high satisfaction with their work and their supervision and feelings of greater success.

Summary of the Main Effects. The hypotheses of this research considered only the interactions among the independent variables. The analyses of variance, though, indicated that a significant portion of the variance in the dependent variables could be accounted for by the main effects of the independent variables. Of those significant main effects, the strongest and most consistent influences seemed to come from work experiences (with the degree of challenge, the

nature of the work setting, and the receipt of a performance review). Expectations, by themselves, seemed to only influence levels of satisfaction. Work-Related Background had main effects on satisfaction with pay and feelings of success.

Not all of the relationships between the dependent and independent variables were as complex as the literature had suggested they were. Many significant relationships were found between single independent variables and the dependent variables. Researchers in the future might want, therefore, to look more closely at the direct relationships between these independent variables and the dependent variables.

Summary

This chapter has reported the significant findings of the tests of the hypotheses, explaining the statistical results. The next chapter will draw conclusions about the meaning and impact of the results. Trends, implications, and conclusions will be drawn from these data.

Table III-14.0.--Summary of the significant, highest-order, ANOVA main effects on the dependent variables.

Independent Variable	Dependent Variable
Need for Security	Satisfaction with Promotion
Job-Challenge Expectations	Satisfaction with Supervision Satisfaction with Promotion
Job-Challenge Experiences	Satisfaction with Supervision Satisfaction with People Satisfaction with Promotion Perceived Company Rating of Success
Work-Setting Expectations	Satisfaction with Work Satisfaction with Pay Satisfaction with Promotion
Work-Setting Experiences	Satisfaction with Work Satisfaction with Pay Satisfaction with Promotion Self-Perceived Success Perceived Company Rating of Success
Work-Related Background	Satisfaction with Pay Self-Perceived Success Perceived Company Rating of Success
Performance Review	Satisfaction with Work Satisfaction with Supervision Self-Perceived Success

CHAPTER IV

CONCLUSIONS AND IMPLICATIONS

Chapter III reported the results of the analysis of the data gathered to research early-career attitudes and behaviors. This chapter discusses the meanings and implications of those results.

Conclusions are drawn from the findings and are discussed in terms of previous research and literature. Implications for both future research efforts and for managers are also suggested.

In general, the set of research hypotheses suggested that satisfaction and success would be higher and turnover lower when graduates had jobs congruent with their needs and expectations. If they also had high levels of work-related background prior to graduation and received a performance review in their first job, then their satisfaction and success would also be high and their turnover low.

The reader should bear in mind two possible explanations for the results obtained in Chapter III. First, literature about early career attitudes and behaviors of college graduates (for example, see Berlew and Hall, 1966; Schein, 1968; Dunnette, Arvey, and Banas, 1973; Bray, Campbell, and Grant, 1974; Hall, 1971b; and Webber, 1976) suggests that levels of satisfaction, success, and turnover are largely due to the degrees to which new graduates job experiences meet their needs and expectations. This literature further suggests that those expectations are frequently too high and thus unrealistic. Ondrack (1973) and Yankelovich (1974a and 1974b) found that college students do, indeed, value and want jobs rich in challenge, autonomy, achievement opportunities. Dunnette, Arvey, and Banas (1973) and Katzell (1968) showed that entry-level expectations were similar for all recently-hired graduates. From data such as these, Schein (1964, 1967, 1968), Hall (1971b), Dunnette, Arvey, and Banas (1973), and others have concluded that it is the degree to which high needs and expectations are not met on the job which leads to much of the early-career dissatisfaction and turnover.

The second explanation for the data patterns of Chapter III may be due to the post hoc nature of the research. Subjects responded after their first jobs. Thus, it can be argued that for whatever reasons graduates leave, they will claim that it was because of unmet needs and expectations and "bad" job experiences. They will be particularly inclined to do so in hindsight. Leavers can be expected to say their needs were not satisfied and their expectations were not met and stayers to claim that their needs and expectations are being met. These are socially acceptable reasons and are probably cognitively consistent with their personal values or perceptions of reasonable behavior and attitudes. Thus, the results

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reported might not be due to unmet needs and expectations as much as to the inclination to explain, in retrospect, one's behavior with such an argument.

This study cannot answer the question of which argument is correct. But these two disparate arguments should be kept in mind while reading the conclusions and implications of this study.

Conclusions

The model of early-career attitudes and behaviors outlined in Chapter I suggested that graduates enter their first jobs with a set of expectations based on their needs and work-related backgrounds. Experiences in first jobs are evaluated against those expectations. This comparison, experiences against expectations, determines the satisfaction, success and propensity to leave of graduates. When job expectations and job experiences are congruent, the graduates will be satisfied, successful, and unlikely to quit. If graduates also receive feedback about performance, there would be high satisfaction and feelings of success, and less willingness to terminate.

The following conclusions are drawn from the results of Chapter III and organized around observed patterns in the dependent variables, satisfaction, perceived success, and turnover. The relationships between levels of satisfaction, perceived success, and turnover were not examined in this study (they were treated as

separate, dependent variables). Similar levels of the independent variables were associated with high satisfaction, high success, and low turnover. Conversely, low satisfaction, low success, and high turnover were associated with consistent levels of the independent variables. Consequently, the discussion is organized around these combinations of the dependent variables:

- 1. low satisfaction, low perceived success, high turnover;
- 2. intermediate satisfaction and success, mid-range turnover;
- 3. high satisfaction, high perceived success, low turnover.

In ascending order from the outcomes of low satisfaction, low perceived success, and high turnover to the outcomes of high satisfaction, high perceived success, and low turnover, the following combinations of needs, expectations, and experiences produced the identified results.

- I. Low Satisfaction, Low Success, High Turnover:
 - A. Low Needs, Low Expectations, Low Job Experiences
 - B. High Needs, High Expectations, Low Job Experiences
- II. Intermediate Satisfaction, Intermediate Success, Mid-range Turnover:
 - C. Low Needs, Low Expectations, High Job Experiences
- III. High Satisfaction, High Success, Low Turnover:
- D. High Needs, High Expectations, High Job Experiences

 This framework for the results is based on the cell means

 reported for the significant interaction effects in Chapter III. It is

most readily observable in Tables III-1.1, III-1.2, III-2.2, III-8.1, III-12.1, and III-13.1. The patterns are also to be found in the other tables which report cell means, but are more difficult to discern because of the higher-order interactions.

Patterns were also observed among the independent variables. Levels of the Job-Challenge variables (nAch, Job-Challenge Expectations, and Job-Challenge Experiences) related to the same levels of the dependent variables (satisfaction, success, and turnover) as did equivalent levels of the Work-Setting variables (nSec, Work-Setting Expectations, and Work-Setting Experiences). Therefore, the following discussion does not usually distinguish between Job-Challenge and Work-Setting variables. It typically refers only to needs, expectations, and experiences, in general.

Low Satisfaction, Low Success, and High Turnover

Hypotheses 1 through 6 and 9 through 14 predicted that satisfaction and success would be high and turnover low when there was congruence between graduates' needs, expectations, and job experiences. They also predicted that high levels of work-related background and the receipt of a performance review would likely be associated with the outcomes of high satisfaction and success and low turnover.

Understood but unstated in these hypotheses was the prediction that satisfaction and success would be low and turnover high when

there was a lack of congruence between graduates' needs, expectations, and experiences. It was also understood that low levels of work-related background and the lack of a performance review would likely be associated with low levels of satisfaction and success and high turnover.

Two different combinations of needs, expectations, and experiences resulted in the outcomes of low satisfaction low perceived success, and high turnover. Only one of these combinations supported the hypotheses.

Low Needs, Low Expectations, and Low Job Experiences.

In general, the hypotheses predicted that congruence between needs, expectations, and experiences would lead to positive outcomes. The hypotheses didn't distinguish between potential outcomes due to congruence among low needs, low expectations, and low experiences or due to congruence among high needs, high expectations, and high experiences. Congruence among low needs, low expectations, and low experiences might have led to satisfaction and the desire to stay with the company because the respondents didn't want or expect much challenge or a good work setting and when they found what they expected, that was all right. The data didn't support this.

When job needs, expectations, and experiences were all low, low levels of satisfaction and success and high turnover resulted.

Some of the respondents had low needs for and expected low levels of challenge and aspects of the work setting and, if this was what they experienced, were <u>dis</u>satisfied and <u>quit</u> the organization. Even though these respondents had anticipated such job experiences, they responded negatively to them.

Much of the literature on early careers (for example, Schein, 1968; Hall, 1971b) and on the role of met-expectations on employee reactions to their jobs (Porter and Steers, 1973) suggests that met-expectations are critical to employees' satisfaction and success and, therefore, to their willingness to stay. The assumption is that graduates expect high levels of challenge, autonomy, achievement opportunities, as well as high pay, good working conditions, and supportive relations with their supervisors (Yankelovich, 1974b). It is these kinds of expectations that this literature suggests causes problems when they are not met. The authors do not typically discuss low expectations nor what happens when graduates enter their first jobs with low expectations.

The current study indicates that when low expectations are met by "low" job experiences, then dissatisfaction, a lack of perceived success, and a high likelihood of turnover result. Even though these were met expectations, i.e., there was congruence between expectations and experiences, the situation did not turn out to be satisfying. And so the graduates left. Evidently, aspects of the job, like challenge and achievement opportunities and aspects of the work setting, like security, supervisory relations, and working conditions are important, whether or not they are initially wanted or expected.

Work-Related Background had a different effect than was hypothesized. Graduates with greater levels of work experience prior to graduation and with college-educated parents with professional/managerial occupations were even more likely to be dissatisfied, feel unsuccessful, and leave than those graduates with less work-related background. It was as though the experiences these respondents had had prior to graduation were reinforcing their experiences on their first jobs. Even though their expectations and needs were low, those with high work-related background seemed to be saying, "I thought this would happen," or "I told you so," when their experienced jobs which were low in just those aspects that they had anticipated when they accepted the job. (Refer to Tables III-1.3, III-5.1, and III-6.1 for illustrations of these three- and four-way interaction effects.)

Graduates who received a performance appraisal responded, as was predicted, with greater satisfaction and perceived success and lower turnover. In interaction with the other variables, when job experiences were bad (or low) as was expected, respondents who received a performance review reported higher satisfaction and success and lower turnover than their peers who didn't receive an appraisal. This feedback about performance may help graduates to confirm their expectations and experiences, and that was satisfying.

(These interaction effects for appraisals can be seen in Tables III-9.1, III-9.2, III-10.1, and III-13.2).

High Needs, High Expectations, and Low Job Experiences

One type of incongruence between needs, expectations, and experiences occurs when needs and expectations are low and job experiences are "high." Under these conditions, respondents did report low levels of satisfaction, did perceive themselves to be low in success, and were more likely to leave. This result is supportive of the hypotheses.

This situation, when job experiences are worse than was expected, has been the one of general concern to writers and researchers. Either because students' expectations really are too high, or because their first jobs have less challenge and a poorer working situation than is justified by their abilities, new employees often do find themselves dissatisfied, feeling unsuccessful, and leaving their employers.

Here, too, work-related background had an effect opposite to that expected. Prior working experience and college-educated family background, when in conjunction with bad job experiences, were associated with less satisfaction and greater propensity to quit than was the case for those without this type of background.

These graduates' backgrounds may have made them even more cynical

than their fellow employees who hadn't had the same kinds of work-related backgrounds. (See Tables III-1.3, III-5.1, and III-6.1 for these interaction effects.)

Performance reviews led to the expected results--higher satisfaction and success and lower turnover. When job experiences were
worse than was expected, those who received an appraisal responded
more positively to this normally dissatisfying situation than those who
didn't receive a review. This feedback may have helped these graduates realign their expectations, and they might have viewed that
as positive. (Tables III-9.1, III-9.2, III-10.1, and III-13.2 show
these interaction effects.)

Summary. In both of these situations (low needs, low expectations, and low job experiences; and high needs, high expectations, and low job experiences), the nature of the respondents' job experiences appeared to be important. Both when graduates expected their jobs to be low in the measured attributes (Job-Challenge and Work-Setting) and when they expected these attributes to be high, if the jobs they actually experienced were low in these characteristics, then they were dissatisfied, felt themselves to be unsuccessful, and were likely to quit (see, for example, Tables III-1.2 and III-2.1).

Intermediate Satisfaction, Intermediate Success, Mid-Range Turn-over

The second level of outcomes -- intermediate levels of

1

satisfaction, success, and turnover--occurred when job experiences were better than expected (i.e., when nAch and nSec were low and when expectations for Job-Challenge and Work-Setting were low but respondents' first jobs were high in challenge and work-setting characteristics).

These results did not support the hypotheses. Congruence between the independent variables was predicted to lead to high satisfaction, high success, low turnover. Incongruence, therefore, was predicted to lead to low satisfaction, low success, and high turnover. In this situation, incongruence was associated with fairly high levels of satisfaction and success and fairly low levels of turnover.

Perhaps the hypotheses should have been more specific in predicting outcomes from the different combinations of independent variables. Job conditions which were better than anticipated would be expected to lead to higher levels of satisfaction and success and lower turnover. Although these were not the highest levels of satisfaction and success nor the lowest levels of turnover, they were more positive than the lowest levels of satisfaction and success and the highest levels of turnover. (These results are most clearly visible in Tables III-1.2, III-2.1, III-2.2, III-9.1, III-9.2, and III-13.2.)

Thus, providing jobs seen by the incumbent to be high in jobchallenge and in a good work-setting may not lead to the highest satisfaction and success and the lowest turnover. Other factors need to be present. This research suggests that graduates must



want and anticipate these job conditions in order to respond most favorably to them (i.e., with high levels of satisfaction, success, and low turnover).

Hiring people with high work-related background may result in lower satisfaction and perceived success, even where they have experienced jobs that are better than expected. Those with high work-related background didn't seem to believe what they admitted was true, that their jobs really were better than they had anticipated. It was as though these respondents' previous experiences made them distrust what they perceived to be happening in their first jobs.

Feedback about performance, though, produced the predicted results. For those respondents who reported job experiences better than expected and also received an appraisal, satisfaction and success were even higher and turnover lower than for their peers who didn't receive such feedback.

High Satisfaction, High Success, and Low Turnover

The most favorable outcomes of this research occurred when respondents had high needs (nAch and nSec), high expectations (Job-Challenge and Work-Setting), and high job experiences (Job-Challenge and Work Setting). As much of the previous work on this subject suggests, graduates who have high expectations and then experience "good" jobs will react positively to their jobs. Under these conditions,



in particular, outcomes favorable to the organization and to the graduate result. These data support this point-of-view.

Graduates may be satisfied because they are getting the challenge, responsibility, and autonomy as well as pay, working conditions, and supervisory relations that they want. That, then, may lead to more commitment to their jobs (Hall and Hall, 1976) which leads to higher success and lessened interest in leaving. Time and energy are spent on current jobs, rather than on finding and breaking into other jobs.

Work-related backgrounds seemed to have an effect different than anticipated. Those with more extensive work-related background, and congruent needs, expectations, and good job experiences, reported lower satisfaction, lower success, and more turnover than their colleagues who didn't have such a strong work-related background. Perhaps graduates with extensive work-related background were less impressed by their good work experiences than their peers without this type of background.

Feedback about performance, interacting with these met good expectations, tended to be associated with higher satisfaction, perceived success and lower turnover rates. Formal appraisals may fill a need, in and of themselves, which help graduates adjust and feel more satisfied with their jobs (as suggested by Seiler, 1970), even when those jobs were already meeting their needs and expectations.



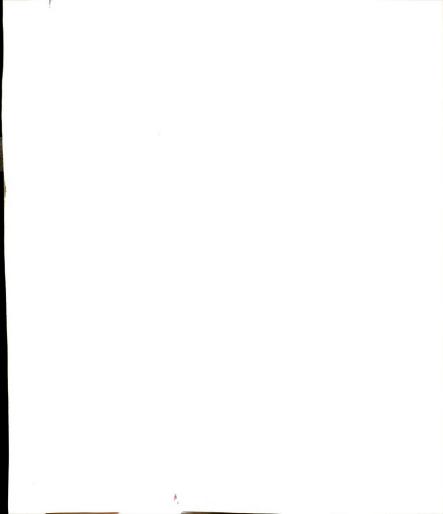
First Jobs vs. Current Jobs

Respondents reported much closer congruence between their expectations and their experiences in their current positions than they reported for their first assignments. Perhaps they learn from experience and thus form more realistic expectations. Or, the graduates may be better able to locate and find jobs which meet expectations. Or, a third possibility is that graduates may say that their current jobs meet their expectations better than their first jobs did, whether or not that was, in fact, the case.

Since subjects' responses were provided in retrospect, which of the above explanations is most tenable can't be determined with these results. The results are consistent with all three arguments. Other research designs (such as a laboratory experiment or longitudinal study) will be necessary to draw the causal inference. At any rate, expectations were reported to be closer to job experiences in the jobs respondents now held than was the case for their first jobs after graduation (see Table III-7.0 for these results).

Job Needs

Two job-needs were used in this study: need for achievement and need for security. The scales, however, had low reliabilities (.33 for nAch and .17 for nSec). Perhaps, this was due to the ranked



nature of the original questionnaire responses. These low reliabilities may have been one of the factors which led to the limited significant results involving the job-needs scales.

Both nAch and nSec appeared to be less important in graduates' expectations and their reactions to their jobs than was anticipated.

A few significant interactions with expectations and job experiences did involve the needs scales. But these were less frequent than was anticipated and less common than the significant results obtained with the other independent variables.

The findings involving job needs appeared to support the argument that graduates choose jobs only partially on the basis of their needs, not expecting to meet any full contingent of their job-related needs (Vroom, 1966). Perhaps graduates are too inexperienced to choose their first jobs on the basis of their needs. Later in their careers, though, after some work experience, these needs seemed to affect more significantly the graduates reactions to their jobs, particularly whether to stay or to leave. (See Tables III-1.1, III-1.3, III-5.1, III-6.1, III-8.1, III-10.1, III-12.1, III-13.1, and III-13.2.)

Implications

The results of this research project have implications for both researchers and for managers and personnel practitioners. Short-comings in the research methodology suggests different strategies

for future research efforts. And the results, themselves, suggest that particular managerial and personnel procedures might improve many organizations! experiences with recently-hired graduates.

Implications for Research

A number of suggestions for further research are indicated by this study. First, the collection of data from respondents with answers-in-retrospect must be addressed. In the hierarchy of research designs, a longitudinal study or experimental design will generally produce more valid results than one based on questionnaire answersin-retrospect. Nevertheless, Campbell and Stanley (1963) suggest responses-in-retrospect probably are conservative responses, rather than ones that have been highly altered from their original form. They point out that responses-in-retrospect tend to become more like what the respondents have come to believe are socially desirable and acceptable, or, when asking about expectations, become more aligned with their actual experiences. Thus, responses given in retrospect, tend to be conservative, compared to the original positions of respondents. But that point-of-view needs further analysis by researchers.

The comparison of pre-job expectations with job experiences provides an excellent situation for testing "hindsight" versus "actual" hypotheses about the causes of relationships between expectations

and experiences. A longitudinal study of this research problem would help provide perspective on this question. Expectations measured before-hand and compared later to employee reactions to different job experiences would provide more valid data as to whether met expectations actually produce the results suggested by this study. Or, it might show that the real reasons for the different levels of satisfaction, success, and turnover stem from other causes and that problems with met expectations are merely phenomena that occur in individuals, responses-in-hindsight.

These data also suggest that the relationships between the variables could be examined more closely. Not all of the relationships were as complex as anticipated in the hypotheses. Thus statistical procedures that look more closely at single variables might be called for. For example, job experiences had consistently significant main effects on all the dependent variables. Further analysis of this variable may produce further insight. Additionally, two of the dependent variables—Perceived Company Ratings of Success and Satisfaction with Promotion—were related only to main effects of different independent variables. Thus, these two variables might benefit from analyses that weren't based entirely on interactive ideas.

Other kinds of analyses are also needed to examine the nature of the interactions between the independent variables. The model in

Chapter I assumed some sequential relationships of the variables, and, thus, causality. The research design and statistical procedures did not provide tests of these types of inter-relationships. Path analysis and cross-lag correlation techniques, as well as longitudinal research designs, can aid in this type of examination.

There are also other variables which might be looked at when studying graduates' early careers. Self-esteem and locus-of-control might provide significant insights into how individuals react to different types of early-career experiences. Organizational climate might also help complete the explanation of graduates' behaviors and attitudes by showing a moderating effect on employees' reactions to their job experiences and degree of met-expectations. Improved measures of performance, such as actual supervisory ratings, pay increases, or promotions might also provide more fruitful results.

Finally, the picture will not be complete until more attention is given to those who are not hired. People may self-select out of the particular job situation, or the organization may decide not to hire them. In either case, expectations, job experiences, and resultant job attitudes and behaviors of this group need to be studied. A picture of these individuals' careers is necessary to fully understand the role that expectations and job experiences play in explaining why graduates react and behave the way they do in their first few years after graduation.

Implications for Managers of Organizations

These findings suggest that organizations can do a number of things to maximize the levels of satisfaction and success and to minimize the turnover of their recently-hired graduates. First they should examine the nature of the job experiences they provide their new employees. These jobs need to be high in such characteristics as allowing the graduates to make decisions on their own, letting them try out their own ideas, giving them the chance to use their educations and abilities, providing a variety of activities to work on, and giving them a chance to achieve some significant objectives.

The nature of the work-setting is also very important. Jobs must be seen as providing good pay, fair organizational policies, recognition for doing a good job, good working conditions, good relations with supervisors including being backed up when necessary and being trained well, advancement opportunities, and a sense of job security.

Whether or not individuals expected their jobs to provide job challenge, achievement opportunities, good working conditions, and good supervisory relations, they responded favorably to jobs that did. If the organization is prepared to challenge its new employees and to reward them for achieving its high expectations, then it should recruit and hire those who have high initial expectations. Such

graduates will do even better in the challenging and rewarding situation than their peers who don't expect to find such good job characteristics in their first jobs.

These findings also suggest that organizations may experience better results from new employees who don't have extensive workrelated backgrounds (high levels of work experience prior to graduation and parents with college educations and professional/managerial occupations) than from those who do have such a background. At least for the organization studied here, the graduates with the more extensive work-related background reacted less favorably to their jobs than their peers who had less work-related background (i.e., had less work experience prior to graduation and who had lesseducated parents who had 'lower-level' occupations). This contradicts the traditional wisdom of organizational recruiting efforts that prior work experience and "good" family background is an asset. Of course, these results may be unique to this organization. Something about it or the industry was not agreeable to persons with this type of background. Obviously, something about the situation attracted the graduates in the first place (good pay or perceived job security), but their reactions after joining are not as favorable as they might have been, nor as their peers with less of this work-related background.

The results of this study also cast some question on the use of realistic job previews as a method of lowering expectations of recruits.

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These previews may not always produce the favorable results expected. They may lead to self-selection out of the particular job as an individual gets a better picture of what the job is like, which might be a good result (Wanous, 1975b). But graduates who go ahead and work for the organization with low expectations turned out to be very dissatisfied when those expectations were met. And they were only slightly more satisfied when their experiences turned out to be better than they expected.

Lastly, these findings confirm the importance of performance reviews. Receiving performance feedback was consistently associated with higher levels of satisfaction, success and retention. It is likely that appraisals provide graduates with the feedback so that they can know how they are doing and can then alter their attitudes and behaviors to more closely fit organizational expectations. This type of feedback may have been partially responsible for the finding that respondents were able to have current jobs more closely aligned with their expectations than was the case for their first assignments. It may have helped them learn to more accurately predict what their jobs would be like.

These results in general indicate that an organization should seek recruits with limited work experience prior to graduation. If at all possible, the organization should try to find graduates who have high expectations for the level of job challenge, responsibility, and achievement in their first jobs. Prospective candidates should also desire good relations with their supervisors and a quality work setting. Then, the organization should proceed to provide just such a job and organizational situation. During those early years after hire, the new employees must also receive a performance review. This should help them adjust to their new jobs.

If these conditions can be provided, then it is likely that there will be far fewer problems with new hires. The organization's new managers should feel satisfied, successful, and have little interest in leaving.

Summary

The congruence hypothesis of needs, expectations, and job experiences as they relate to satisfaction, success, and turnover was only partially supported. It appears that differing combinations of job expectations and job experiences for recently-hired college graduates have different effects. When respondents low levels of expectations for different job facets were congruent with their job experiences (i.e., when they expected low job-challenge and a bad work-setting and that is what they experienced), then low levels of satisfaction and success and high levels of turnover resulted. Even though this is an example of met expectations, or congruence, it was not associated with positive results.

Unmet expectations led to anticipated results in both situations. Graduates who expected "good" jobs but didn't experience them, responded as one would expect: with low satisfaction, low perceived success, and high turnover. Graduates who expected "bad" jobs but experienced jobs that were better than anticipated, also responded as one would expect: with high satisfaction, high perceived success, and low turnover. However, this level of satisfaction and success was not the highest reported nor the turnover level the lowest.

The highest satisfaction and success levels and the lowest turnover rates occurred when graduates expected "good" jobs and they got them. This was the major predicted result.

Work-related background did not relate to job attitudes as expected. If anything, work experience prior to graduation and professional/managerial and/or college educated parents led these graduates to be less satisfied with their situations. For example, when their expectations were low, but their job experiences were good, then low levels of work-related background was associated with lower turnover than was high levels of work-related background.

On the other hand, formal performance reviews were associated with expected outcomes. Those who received a performance appraisal were generally more satisfied, perceived themselves to be more successful, and were less likely to quit than those who did not receive a review. For example, when expectations were low,

but experiences were good, appraisals were associated with higher levels of perceived success than no-appraisals.

After being on the job for a few years, graduates report current job experiences are more congruent with their current expectations than were first-job experiences and first-job expectations. The results showing what happens when expectations and experiences are congruent in good jobs would suggest that these respondents should be more satisfied and successful now than they were in their first jobs, since their expectations are being largely met. And their turnover rates should be lower.

The organization that is concerned about retention of its recently-hired college graduates should design entry-level jobs and work situations, including supervisory relations and feedback, and move in the directions, as suggested by these results.

APPENDICES



APPENDIX A

The Questionnaire

Inventory of Reactions Concerning Employment with the Company



INVENTORY OF REACTIONS CONCERNING EMPLOYMENT WITH THE COMPANY

Introduction

This questionnaire is part of a study of college graduate careers in the Company. The aim of the study is to see how you view your assignments. We are interested in how you feel about your early job experiences and various related issues.

As mentioned in the cover letter, your participation is important to the success of the study, and, is, therefore, highly appreciated. The data we are gathering will be reported in terms of group trends and averages only. It is through your cooperation in studies such as this that we will enhance our understanding of how to most effectively use our college graduate employees.

PART I

A. Basic Information

Age:						
Sex: 1.	Male 2	_ Female				
Marital Si	tatus: 1 Married	2	Single	3	Divor	ced
Name of c	college from which you g	raduated		 		
Education	al Level: Circle the app	oropriate	statem	ent numbe	er.	
	Did not graduate from college		2. BS	or BA		
3.	MA	4. MBA			5.	PhD

B. Background Factors

Circle the number of the answer that answers each question the best. Please circle only one response for each question.

What was the highest educational level your father (or guardian) achieved?

- 1. high school graduate or less
- 2. attended college (but no degree)
- 3. one or more bachelor's degree (including law)
- 4. graduate training (but no graduate degree)
- 5. one or more graduate degrees
- 6. does not apply

Your father's occupation may be best described as:

- 1. unskilled or semi-skilled work
- 2. sales or office work
- 3. farming or skilled work
- 4. owner of a small business or supervisory
- 5. scientist (geologist, engineer, chemist, etc.)
- 6. businessman (middle management)
- 7. professional (lawyer, physician, etc.)
- 8. business executive
- 9. other or does not apply

What was the highest educational level your mother (or guardian) achieved?

- 1. high school graduate or less
- 2. attended college (but no degree)
- 3. one or more bachelor's degree (including law)
- 4. graduate training (but no graduate degree)
- 5. one or more graduate degrees
- 6. does not apply

How many persons (not including yourself) were dependent upon you for all or most of their support while you attended college?

- l. none
- 2. one
- 3. two or three
- 4. four or five
- 5. more than five

What proportion of your college expenses (tuition, books, room, board, etc.) did you earn personally?

- 1. none
- 2. less than ten percent
- 3. ten to twenty-four percent
- 4. twenty-five to forty-nine percent
- 5. fifty to seventy-five percent
- 6. more than seventy-five percent

Had you been in the armed forces prior to joining the Company?

- l. no
- 2. yes, as an enlisted man
- 3. yes, as both an officer and an enlisted man
- 4. yes, as an officer

Other than summer jobs, during the last two years you were in college the average number of hours a week which you spent on part-time jobs was:

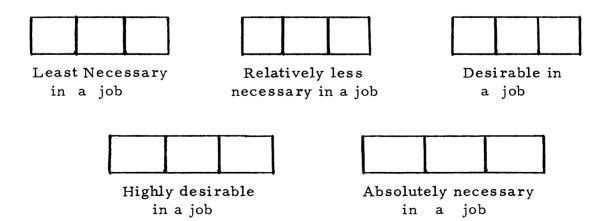
- l. none
- 2. less than five
- 3. five to nine
- 4. ten to twenty
- 5. more than twenty

C. What Did You Want in a Job When You Were Graduating from College

What did you want in a job at the time you were graduating from college--when you were interviewing with different companies for jobs they had? What were you looking for then?

Listed below are 15 phrases describing various job features. Read them over and then sort them according to what you were looking for in a job when you were graduating from college. Remember, when you're done, all job features should be crossed out and each box should have a number in it.

- 1. Having a boss who backs me up
- 2. Having good working conditions on the job
- 3. Being well paid
- 4. Receiving recognition for the work I did
- 5. Having a high degree of responsibility
- 6. Telling others what to do in their jobs
- 7. Enjoying the work itself
- 8. Good advancement possibilities
- 9. Having variety on the job
- 10. Being in a company that administered policies fairly
- 11. Getting a feeling of achievement from doing the job
- 12. Trying out my own ideas
- 13. Making use of my abilities
- 14. Having status in my community
- 15. Job security



The following series of questions will relate to your impressions of jobs you held while with the Company. The questions involve your describing what the assignments were like, what you got from them, what the rewards of hard work and effort were, and how satisfying they were to you. Please answer all the questions as carefully as possible.

Thank you very much.

Your First Assignment at the Company

A. Relationship Between Effective Performance and Job Outcomes on your First Assignment at the Company

Consider what affect your performance effectiveness had on what you would obtain from the first assignment you had at the Company. In other words, if a person on that first assignment was judged to be highly effective, how might the features of his job change? How certain were you in your first assignment at the Company that a high degree of performance effectiveness (really being top notch) would lead to each of the job features or outcomes listed below?

Indicate your expectations about the probable results of effective performance on that first job according to the following categories:

- Circle CERT NOT if you were quite certain that highly effective performance on your first Company assignment would not lead to the occurrence of a particular job feature or outcome.
- Circle PROB Not if you thought that highly effective performance on your first Company assignment probably would not lead to the job feature or outcome.
- Circle? if you weren't sure one way or the other about whether or not highly effective performance on your first Company assignment would lead to the job feature or outcome.
- Circle PROB WOULD if you thought that highly effective performance on your first Company assignment probably would lead to the occurrence of a particular job feature or outcome.



- Circle CERT WOULD if you were quite certain that highly effective performance on your first Company assignment would lead to the job feature or outcome.

On my first assignment with the Company, if my performance was judged as highly effective:

1.	I would make use of my abilities	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
2.	The company would administer its policies fairly	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
3.	I would enjoy the work itself	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
4.	I would be paid well	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
5.	The boss would back me up	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
6.	I would have job security	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
7.	I would try out my own ideas	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
8.	I would do something different every day	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
9.	I would have a high degree of responsibility	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
10.	The job would have good working conditions	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
11.	I would have status in the community	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
12.	I would get a feeling of achievement from the job	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
13.	I would tell others what to do in their jobs	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
14.	I would have good advancement possibilities	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
15.	I would get full recognition for the work I did	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD



B. A Description of Your First Assignment at the Company

We'd now like you to describe your first Company assignment at the following factors. To do this simply indicate whether you agree or disagree with the following statements.

DD - means you definitely disagree

D - means you probably disagree

? - means you neither disagree nor agree

A - means you probably agree

DA - means you definitely agree

Workers on that first job . . .

1.	made use of their individual abilities	DD	D	?	Α	DA
2.	got a feeling of accomplishment	DD	D	?	Α	DA
3.	were busy all the time	DD	D	?	Α	DA
4.	had opportunities for advancement	DD	D	?	Α	DA
5.	told other workers what to do	DD	D	?	Α	DA
6.	had a company which administered its policies fairly	DD	D	?	Α	DA
7.	were paid well in comparison with other workers	DD	D	?	Α	DA
8.	had co-workers who were easy to make friends with	DD	D	?	Α	DA
9.	tried out their own ideas	DD	D	?	Α	DA
10.	did their work alone	DD	D	?	Α	DA
11.	had good working conditions	DD	D	?	Α	DA
12.	received recognition for the work they did	DD	D	?	Α	DA
13.	made decisions on their own	DD	D	?	Α	DA
14.	had steady employment	DD	D	?	Α	DA
15.	had work where they did things for other people	DD	D	?	Α	DA
16.	had the position of "somebody" in the community	DD	D	?	Α	DA
17.	had bosses who backed up their men (with top					
	management)	DD	D	?	Α	DA
18.	had bosses who trained their men well	DD	D	?	Α	DA
19.	had something different to do every day	DD	D	?	Α	DA
20.	planned their work with little supervision	DD	D	?	Α	DA
21.	enjoyed the work itself	DD	D	?	Α	DA

C. Your Degree of Satisfaction With Your First Assignment at the Company

Ask yourself: How satisfied were you with each aspect of your first assignment at the Company?

- VS means you were very satisfied with this aspect of your first job.
- S means you were satisfied with this aspect of your first job.
- N means you couldn't decide whether you were satisfied or not with this aspect of your first job.
- DS means you were dissatisfied with this aspect of your first job.
- VDS means you were very dissatisfied with this aspect of your first job.

Circle the appropriate category:

On my first assignment at the Company, this is how I felt about:

1.	Being able to keep busy all the time	VDS	DS	N	S	VS
2.	The chance to work alone on the job	VDS	DS	N	S	VS
3.	The chance to do different things from time to time	VDS	DS	N	S	VS
4.	The chance to be "somebody" in the community	VDS	DS	N	S	VS
5.	The way my boss handled his men	VDS	DS	N	S	VS
6.	The competence of my supervisor when he made decisions	VDS	DS	N	S	VS
7.	Being able to do things that didn't go against my conscience	VDS	DS	N	S	VS
8.	The way my job provided for steady employment	VDS	DS	N	S	VS
9.	The chance to do things for other people	VDS	DS	N	S	VS
10.	The chance to tell people what to do	VDS	DS	N	S	VS
11.	The chance to do something that made use of my abilities	VDS	DS	N	S	VS
12.	The way company policies were put into practice	VDS	DS	N	S	VS
13.	My pay and the amount of work I did	VDS	DS	N	S	VS
14.	The chances for advancement on the job	VDS	DS	N	S	VS
15.	The freedom to use my own judgment	VDS	DS	N	S	VS
16.	The chance to try my own methods of doing the job	VDS	DS	N	S	vs
17.	The working conditions	VDS	DS	N	S	VS
18.	The way my co-workers got along with each other	VDS	DS	N	S	VS
19.	The praise I got for doing a good job	VDS	DS	N	S	VS
20.	The feeling of accomplishment I got from the job	VDS	DS	N	S	VS
21.	Enjoying the work itself	VDS	DS	N	S	vs

D. Description of the Work, People, Pay, Promotions and Supervision on Your First Assignment with the Company

Below are five groupings of items. Each group represents some aspect of your first assignment. We'd like you to indicate your feelings about these aspects by circling "Y" (yes) if the item is descriptive of that job assignment, "N" (no) if it is not descriptive and "?" if you cannot decide.

Again, we appreciate your cooperation.

WORK				PEOPLE, CON'T			
Fascinating	Y	N	?	Boring	Y	N	?
Routine	Y	N	?	Slow	Y	N	?
Satisfying	Y	N	?	Ambitious	Y	N	?
Boring	Y	N	?	Stupid	Y	N	?
Good	Y	N	?	Responsible	Y	N	?
Creative	Y	N	?	Fast	Y	N	?
Respected	Y	N	?	Intelligent	Y	N	?
Hot	Y	N	?	Easy to make enemies	Y	N	?
Pleasant	Y	N	?	Talk too much	Y	N	?
Useful	Y	N	?	Smart	Y	N	?
Tiresome	Y	N	?	Lazy	Y	N	?
Healthful	Y	N	?	Unpleasant	Y	N	?
Challenging	Y	N	?	No privacy	Y	N	?
On your feet	Y	N	?	Active	Y	N	?
Frustrating	Y	N	?	Narrow interests	Y	N	?
Simple	Y	N	?	Loyal	Y	N	?
Endless	Y	N	?	Hard to meet	Y	N	?
Gives sense of accomplishment	Y	N	?				
_				PAY			
SUPERVISION				Income adequate for			
Asks my advice	Y	N	?	normal expenses	Y	N	?
Hard to please	Y	N	?	Satisfactory profit sharing	Y	N	?
Impolite	Y	N	?	Barely live on income	Y	N	?
Praises good work	Y	N	?	Bad	Y	N	?
Tactful	Y	N	?	Income provides luxuries	Y	N	?
Influential	Y	N	?	Insecure	Y	N	?
Up-to-date	Y	N	?	Less than I deserve	Y	N	?
Doesn't supervise enough	Y	N	?	Highly paid	Y	N	?
Quick-tempered	Y	N	?	Underpaid	Y	N	?
Tells me where I stand	Y	N	?				
Amoying	Y	N	?	PROMOTIONS			
Stubborn	Y	N	?	Good opportunity for advance	Y	N	?
Knows job well	Y	N	?	Opportunity somewhat limited	Y	N	?
Bad	Y	N	?	Promotion on ability	Y	N	?
Intelligent	Y	N	?	Dead-end-job	Y	N	?
Leaves me on my own	Y	N	?	Good chance for promotion	Y	N	?
Around when needed	Y	N	?	Unfair promotion policy	Y	N	?
Lazy	Y	N	?	Infrequent promotions	Y	N	?
				Regular promotions	Y	N	?
PEOPLE				Fairly good chance for			
Stimulating	Y	N	?	promotion	Y	N	?



E. Your Success on Your First Assignment With the Company

Comparing yourself to others with similar jobs and qualifications, how did you feel about your success on this first assignment? Circle the appropriate category.

In the top: 1. 10% 3. 75% 2. 25% 4. 95%

Rate how you felt about your success according to the Company rating system.

Sat Sat Outstanding

3. Sat +

Imagine a ladder with 10 rungs. The top rung, No. 10, represents high success on the job and the bottom rung, No. 1, represents very poor success on the job. On what rung were you when you were on your first job assignment?

_____ rung on first job assignment

How did you feel that the company rated your success on this first assignment? Circle the appropriate category.

In the top: 1. 10% 3. 75% 2. 25% 4. 95%

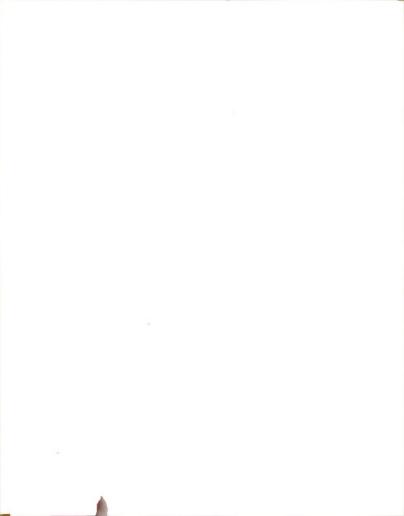
Using the Company rating system:

Sat Sat Outstanding

3. Sat +

On what rung of the ladder do you feel that the Company would have placed you during your first job assignment?

rung on first assignment.

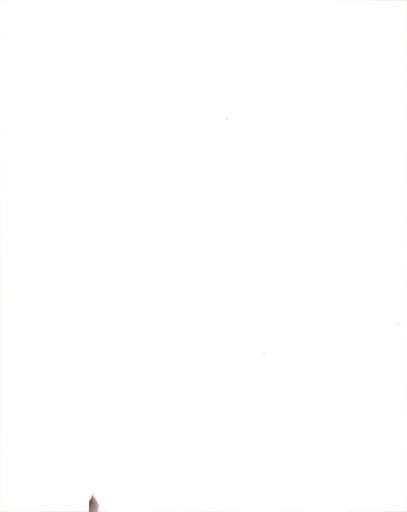


F. Receipt of a Performance Review

Did you ever have a performance review with your supervisor on your first job assignment?

Circle: 1. Yes 2. No.

If yes, tell us about it briefly (in two or three sentences).



PART III. CURRENT ASSIGNMENT

A. Description of Your Present Job

We'd now like you to describe your present job on the following factors. To do this simply indicate whether you agree or disagree with the following statements.

DD - means you definitely disagree

D - means you probably disagree

? - means you neither disagree nor agree

A - means you probably agree

DA - means you definitely agree

Workers on your present job . . .

1.	make use of their individual abilities	DD	D	?	Α	DA
2.	get a feeling of accomplishment	DD	D	?	Α	DA
3.	are busy all the time	DD	D	?	Α	DA
4.	have opportunities for advancement	DD	D	?	Α	DA
5.	tell other workers what to do	DD	D	?	Α	DA
6	have a company which administers its policies fairly	DD	D	?	A	DA
	- ,	DD	D	: ?	A	DA
_	are paid well in comparison with other workers			-		
8.	have co-workers who are easy to make friends with	DD	D	?	A	DA
	try out their own ideas	DD	D	?	Α	DA
10.	do their work alone	DD	D	?	Α	DA
11.	have good working conditions	DD	D	?	Α	DA
12.	receive recognition for the work they do	DD	D	?	Α	DA
13.	make decisions on their own	DD	D	?	Α	DA
14.	have steady employment	DD	D	?	Α	DA
15.	have work where they do things for other people	DD	D	?	Α	DA
16.	have the position of "somebody" in the community	DD	D	?	А	DA
	have bosses who back up their men (with top management)	DD	D	?	A	DA.
	have bosses who train their men well	DD	D	?	Ā	DA
			_			
19.	have something different to do every day	DD	D	?	A	DA
	plan their work with little supervision	DD	D	?	Α	DA
21.	enjoy the work itself	DD	D	?	Α	DA



B. Relationship Between Effective Performance and Job Outcomes on Your Present Job

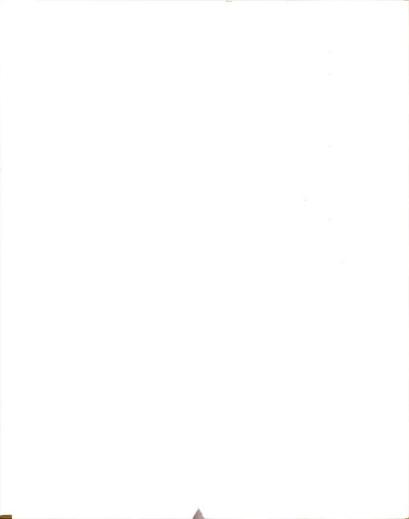
Consider what effect your performance effectiveness has on what you would obtain from your current job. In other words, if a person on your job is judged to highly effective, how might the features of his job change? How certain are you in that a high degree of performance effectiveness (really being top notch) will lead to each of the job features or outcomes listed below?

Indicate your expectations about the probable results of effective performance on your job according to the following categories.

- Circle CERT NOT if you are quite certain the job feature would not occur in your present job.
- Circle PROB NOT if you thought the job feature probably would not occur in your present job.
- Circle? if you weren't sure one way or the other about whether or not the job feature would occur in your present job.
- Circle PROB WOULD if you thought the job feature probably would occur in your present job.
- Circle CERT WOULD if you are quite certain the job feature would occur in your present job.

1.	I will have job security	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
2.	I will have status in the community	CER T NOT	PROB NOT	?	PROB WOULD	CERT WOULD
3.	I will be able to make use of my abilities	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
4.	I will be able to try out my own ideas	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
5.	I will get a feeling of achievement from the job	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
6.	The company will administer its policies fairly	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
7.	I will be able to do something different every day	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD

8.	I will have good advancement possibilities	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
9.	I will enjoy the work itself	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
10.	I will tell others what to do in their jobs	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
11.	I will have a high degree of responsibility	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
12.	I will get full recognition for the work I do	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
13.	I will be well paid	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
14.	The job will have good working conditions	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD
15.	The boss will back me up	CERT NOT	PROB NOT	?	PROB WOULD	CERT WOULD



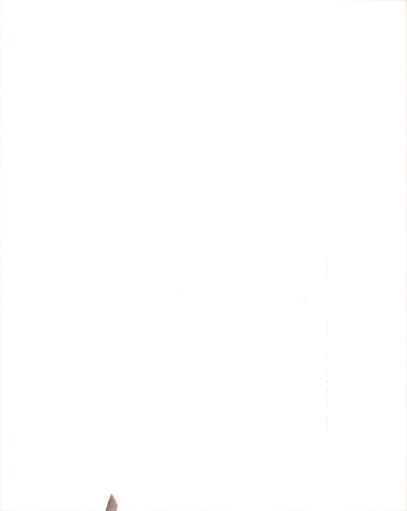
C. Your Satisfaction with Your Present Job

Ask yourself: How satisfied you are with this aspect of your present job?

- VS means you are very satisfied with this aspect of your present job
- S means you are satisfied with this aspect of your present job
- N means you can't decide whether you are satisfied with this aspect of your present job or not
- DS means you are dissatisfied with this aspect of your present job
- VDS means you are very dissatisfied with this aspect of your present job

On my present job, this is how I feel about:

1.	Being able to keep busy all the time	VDS	DS	N	S	VS
2.	The chance to work alone on the job	VDS	DS	N	S	VS
3.	The chance to do different things from time to time	VDS	DS	N	S	VS
4.	The chance to be "somebody in the community	VDS	DS	N	S	VS
5.	The way my boss handles his men	VDS	DS	N	S	VS
6.	The competence of my supervisor in making					
	decisions	VDS	DS	N	S	VS
7.	Being able to do things that don't go against					
	my conscience	VDS	DS	N	S	VS
8.	The way my job provides for steady employment	VDS	DS	N	S	VS
9.	The chance to do things for other people	VDS	DS	N	S	VS
10.	The chance to tell people what to do	VDS	DS	N	S	VS
11.	The chance to do something that makes use of my					
	abilities	VDS	DS	N	S	VS
12.	The way company policies are put into practice	VDS	DS	N	S	VS
13.	My pay and the amount of work I do	VDS	DS	N	S	VS
14.	The chances for advancement	VDS	DS	N	S	VS
15.	The freedom to use my own judgement	VDS	DS	N	S	VS
16.	The chance to try my own methods of doing the job	VDS	DS	N	S	VS
17.	The working conditions	VDS	DS	N	S	VS
18.	The way my co-workers get along with each other	VDS	DS	N	S	VS
19.	The praise I get for doing a good job	VDS	DS	N	S	VS
20.	The feeling of accomplishment I get from the job	VDS	DS	N	S	VS
21.	Enjoying the work itself	VDS	DS	N	S	VS



D. Description of the Work, People, Pay, Promotions and Supervision on Your Present Job

Below are five groupings of items. Each group represents some aspect of your present job. We'd like you to indicate your feelings about these aspects by circling "Y" (yes) if the item is descriptive of your present job, "N" (no) if it is not descriptive and "?" if you cannot decide.

Again, we appreciate your cooperation.

WORK				PEOPLE, CON'T			
Fascinating	Y	N	?	Boring	Y	N	?
Routine	Y	N	?	Slow	Y	N	?
Satisfying	Y	N	?	Ambitious	Y	N	?
Boring	Y	N	?	Stupid	Y	N	?
Good	Y	N	?	Responsible	Y	N	?
Creative	Y	N	?	Fast	Y	N	?
Respected	Y	N	?	Intelligent	Y	N	?
Hot	Y	N	?	Easy to make enemies	Y	N	?
Pleasant	Y	N	?	Talk too much	Y	N	?
Useful	Y	N	?	Smart	Y	N	?
Tiresome	Y	N	?	Lazy	Y	N	?
Healthful	Y	N	?	Unpleasant	Y	N	?
Challenging	Y	N	?	No privacy	Y	N	?
On your feet	Y	N	?	Active	Y	N	?
Frustrating	Y	N	?	Narrow interests	Y	N	?
Simple	Y	N	?	Loyal	Y	N	?
Endless	Y	N	?	Hard to meet	Y	N	?
Gives sense of accomplishment	Y	N	?				
				PAY			
SUPERVISION				Income adequate for			
Asks my advice	Y	N	?	normal expenses	Y	N	?
Hard to please	Y	N	?	Satisfactory profit sharing	Y	N	?
Impolite	Y	N	?	Barely live on income	Y	N	?
Praises good work	Y	N	?	Bad	Y	N	?
Tactful	Y	N	?	Income provides luxuries	Y	N	?
Influential	Y	N	?	Insecure	Y	N	?
Up-to-date	Y	N	?	Less than I deserve	Y	N	?
Doesn't supervise enough	Y	N	?	Highly paid	Y	N	?
Quick-tempered	Y	N	?	Underpaid	Y	N	?
Tells me where I stand	Y	N	?	-			
Annoying	Y	N	?	PROMOTIONS			
Stubborn	Y	N	?	Good opportunity for advance	Y	N	?
Knows job well	Y	N	?	Opportunity somewhat limited		N	?
Bad	Y	N	?	Promotion on ability	Y	N	?
Intelligent	Y	N	?	Dead-end-job	Y	N	?
Leaves me on my own	Y	N	?	Good chance for promotion	Y	N	?
Around when needed	Y	N	?	Unfair promotion policy	Y	N	?
Lazy	Y	N	?	Infrequent promotions	Y	N	?
-				Regular promotions	Y	N	?
PEOPLE				Fairly good chance for			
Stimulating	Y	N	?	promotion	Y	N	?
~				-			



E. Your Success on Your Present Job

Comparing yourself to others with similar jobs and qualifications, how do you feel about your success in your present job? Circle the appropriate category.

In the top:

1. 10% 3. 50%

2. 25%

4. 75%

Rate how you feel about your success according to the Company Rating System.

1. Sat -

4. Excellent

2. Sat

5. Outstanding

3. Sat +

Imagine a ladder with 10 rungs. The top rung, No. 10, represents high success on the job and the bottom rung, No. 1, represents very poor success on the job. On what rung are you in your present job?

_____ rung in present job.

How do you feel that the company rates your success in your present job? Circle the appropriate category.

In the top: 1. 10%

3. 75%

2. 25%

4. 95%

Using the Company Rating System:

1. Sat -

4. Excellent

2. Sat

5. Outstanding

3. Sat +

On what rung of the ladder do you feel that the company would place you in your present job?

____ rung in present job.

F. Receipt of a Performance Review

Have you had a performance review with your supervisor in your present job?

Circle: 1. Yes

2. No.

If yes, tell us about it briefly in two or three sentences.



APPENDIX B

Factor Analysis



APPENDIX B

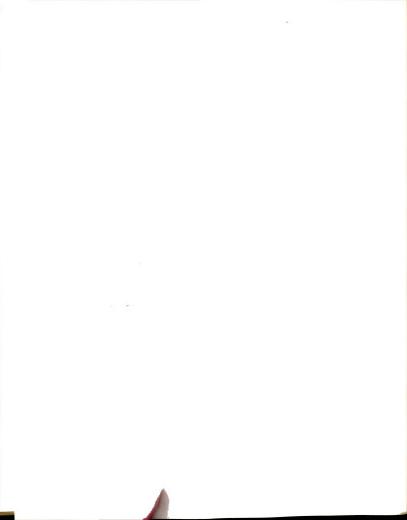
Factor Analysis

This appendix describes the procedures used for the forming of general factors among the items in three sections of the question-naire: Job Needs, Job Expectations, and Job Experiences. The procedures will be explained. And the tables that were produced in this analysis are also shown in this appendix.

Job Expectations and Experiences.

Two procedures were used to form the general variable factors among the Job Expectations and Job Experiences items. The first of these procedures was a factor analysis. The second involved testing the identified factors for reliability. The Statistical Package for the Social Sciences (SPSS, Nie, et al., 1975) was used for these statistical procedures. SPSS contains a number of options for its factor analysis technique. All of these options contain similar steps: initial correlation matrix among all the items; preparation of initial factor loadings; weights for estimating factor scores from among the variables; and a correlation matrix for the terminal factors.

The following is a short description of these steps (see chapter 24 of SPSS, Nie, et al., 1975) which are then tied to the tables which provide the necessary matrixes for this factor analysis.



Step 1. The first step in factor analysis involves the calculation of a correlation matrix among the relevant variables as defined by the researcher. Table B-1 shows the correlation matrix for the items contained in the section of the questionnaire about Job Expectations.

Table B-4 shows the coefficients for the Job Experiences items.

These variables are grouped in the order that was later defined by

the factor determinations.

Step 2. The second step in factor analysis was to explore the data reduction possibilities by constructing a new set of variables on the basis of items which are orthogonal, or independent, of the other items. This procedure used the classical technique of factor analysis. That is, factors are defined to be uncorrelated to all common factors in the data (shared determinants) as well as to the unique factors associated with the other variables. These factors are extracted in the order of their importance, in terms of explaining variance in the data.

Step 3. In this step, the axes of the first factor loadings are rotated so as to separate the positive from the negative item loadings on the separate factors. Thus, the rotated factor loadings are conceptually simpler than the unrotated ones. The specific rotational procedure used, here, was the Varimax procedure, which, in essence, maximizes the variance of the squared loadings in each



factor column. This method of rotation is the most widely used (Nie, et al, 1975, p. 485). Table B-2 shows the factors identified by these two steps. As can be seen in this table, the factor items do have conceptual consistency. The first two of these factors were labelled Job Challenge and Work-Setting, in accordance with the item contents of the factors. The third factor was not used in the testing of hypotheses. Factors 1 and 2 explained 91.2 per cent of the total variance in the Expectations data.

Step 4. Table B-3 reports the correlations between each variable and a composite factor score. These coefficients—of the highly loaded variables—can be used as weights for determining the factor—scale variable score.

Step 5. Once the terminal factors had been determined, they were tested for reliability with coefficient alpha. Coefficients alpha--a measure of internal consistency--were determined for all factors which came from this factor analysis. The alpha coefficient is the most appropriate measure of reliability when no test-retest or equivalent-form alternatives are available (Nunnally, 1967). (All of the reliability scores are reported in Table II-8 and discussed in Chapter II.) SPSS's reliability procedure tests the variables in a factor for their individual impact on the factor's overall reliability coefficient. It then indicates when a factor's reliability would be increased by deleting a particular item (or items). As indicated in



Table B-5, items 7 and 8 were deleted from the Job-Challenge factor using this procedure and items 12 and 13 were deleted from the Work-Setting factor for the same reason.

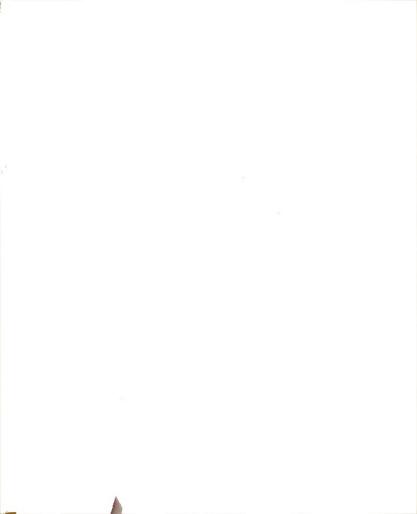
Step 6. The last step in this analysis of factors involved creation of a correlation matrix for all the factors used in the research. Table B-8 reports these coefficients. Typically, factors of similar constructs (such as the two needs factors or the two expectations factors) correlated more highly with each other than with factors of different constructs. For example, nSec correlates -.46 with nAch, yet neither correlates above .11 with any other variable or factor. Where a factor correlates fairly highly with a different construct, it was because of the relationships between the two. For example, respondents' first-job experiences with Job Challenge correlated .63 with Satisfaction with their work. This was an expected relationship.

The results, then, of this factor analysis produced the factors shown in Tables B-2, B-3, B-5, and B-6. As indicated on those tables, the four factors used in the testing of hypotheses were Job-Challenge (Expectations for and Experiences with) and Work-Setting (Expectations for and Experiences with). The Experiences with the Work-Setting factor was changed slightly from the original factoranalysis results. Items 14 and 15 (pay and Job security) were added to the original Work-Setting factor in order to provide a factor

similar to the Expectations for the Work-Setting factor. This lowered the overall reliability coefficient but enabled a more consistent analytical framework. All of the remaining factors were dropped from further analysis and testing of the hypotheses. The four factors used allowed the hypotheses to be tested with direct comparisions between respondents' expectations and their job experiences in the areas of job challenge and work-setting.

Job Needs.

Individuals' Needs were obtained by asking respondents to rank fifteen job facets. Because of the ipsative nature of ranked data, regular factor analysis and other statistical techniques cannot be used (Hicks, 1970). To eliminate these problems, the ranked items must somehow have their pure ranking form removed. In order to do this--and to see if some of the items grouped together--Spearman-Rho correlations were determined between all combinations of paired rankings. Items with positive correlations and similar content were grouped to form Need factors. These items were then added together (to remove the purely ipsative nature of the data) to create factors which were used in the hypotheses testing. Table B-7 shows the Spearman-Rho coefficients and identifies the three factors which were found. Only items 1, 2 and 3 (a nAch factor) and items 6, 7 and 8 (a nSec factor) were used in the later analysis.



Using Nunnally's (1967) formula for reliabilities based on a scale's average interitem correlations, nAch had a reliability of .33 and nSec had a reliability of .17. Because of the few items in each scale and the ipsative original data, these are not very high reliabilities, and they put limits on finding any significant relationships with these scales.



Table B-1--Interitem Correlations: Expectations, First Job.

	Variables														
		2	3	4	5	9	7	8	6	10	11	12	13	14	15
.	1. Admin Pol Frly	. 24	.32	.32	.38	.28	.36	.38	. 25	60.	52	.15	.24	.18	60.
2.	2. Well Paid		. 25	.21	.19	24	.41	.34	.24	.29	.24	.19	. 25	.26	.18
ω.	3. Boss Whm Up			.40	.30	.20	. 42	.49	. 29	.36	.36	. 21	.39	. 22	.15
4	4. Job Security				. 24	. 20	.25	. 28	.13	.14	.24	.05	.17	.13	80.
S.	5. Good Working Cond					. 33	.30	35	.23	.32	.19	.17	.27	8.	.10
9	6. Status in Community						.29	.30	.22	. 26	.21	. 23	.29	. 26	.18
7.	7. Adv. Poss							. 64	.45	.41	4.	.28	.54	.35	.18
œ.	8. Recognition for work								.38	.43	45	. 28	.53	.30	1.38
9.	9. Make use of Ability									.58	.55	.36	. 62	4	.29
10.	10. Work Itself										. 48	.39	.64	.37	.19
11.	11. Try out Ideas											.46	.54	.47	.32
12.	12. Variety on Job*												.39	.45	. 28
13.	13. Ach from Job													.47	.32
14.	14. High Degree Resp														.61
15.	15. Tell others what to do														

* Item deleted to increase reliability of factor.

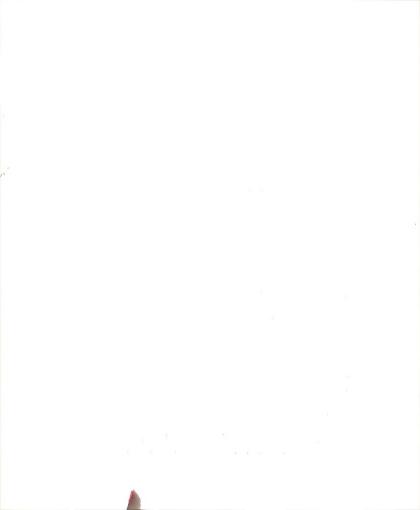


Table B 2--Varimax rotated factor matrix after rotation with Kaiser normalization: expectations, first job.

Factor 3*	. 21	.08	. 31	. 22	20.	.19	60.	.07	2.19	.15	.19	.10	. 71	. 75
ļī.														
Work-Setting Factor 2	.20	.27	.30	.30	.57	.39	.56	. 53	.51	39	.56	. 62	.14	.05
W														
lenge 1														
Job-Challenge Factor 1	. 70	.72	. 56	. 73	. 14	.18	.26	00:-	. 24	.19	.41	.40	.38	.16
									SUC				sibility	
Variables	1. Make use of abil	Work itself	3. Try out ideas	4. Ach from job	5. Admin pol fairly	Well paid	7. Boss wbm up	8. Job security	9. Good working conditions	10. Status in community	ssod a	12. Recognition for work	13. High degree of responsibility	14. Tell others what to do
	1. Ma	2. Wo	3. Tr	4. Ac	5. Ad	6. We	7. Bos	8. Jot	9.	10. Sta	11. Adv poss	12. Re	13. Hi	14. Te

* Dropped from further analysis

Table B-3--Factor score correlation coefficients: expectations, first job.

	Variables	Job-Challenge Factor 1	Work-Setting Factor 2	Factor 3*
1.	1. Make use of abil	.28	10	05
2	2. Work itself	.33	90	14
3.	3. Try out ideas	.13	0 0.	90.
4.	4. Ach from job	.35	08	07
5.	5. Admin pol fairly	07	. 21	02
9	6. Well paid	40	.10	2.
7.	7. Boss wbm up	05	.20	%:-
œ	8. Job security	12	.21	.02
9.	9. Good working conditions	.01	.18	11
10.	10. Status in community	03	.11	.01
11.	11. Adv poss	00	.20	.02
12.	12. Recognition for work	00:	. 25	03
13.	13. High degree of responsibility	01	04	.48
14.	14. Tell others what to do	12	03	.47

* Dropped from further analysis.

Table B-4--Interitem correlations: experiences, first job.

Variables

		7	m	4	o	9		∞	6	10	11	12	13	14	15	16	17	18	19	22	
1.	Make use of abil	.56	.48	.37	. 28	. 49			. 31		.32	. 23			•		.18	.12		14	•
5:	Achievement from job		.49	.40	31				.40		. 33	.31					. 28	.18		. 18	``
ж •	Try out ideas			. 55	39				.37		.26	. 26	•	•			.29	.18		.14	•
4.	Decisions on own			٠	30				.37		. 25	. 22					.40	.11		.14	•
5.	Variety on job						. 20	. 26	. 22	.15	.19	. 23	.03	•			.21	.10		18	•
9	Work itself					•			4.		.41	.30		.01	.07	90.	.34	.27	.30	. 23	.13
7	Tell others what to do								•		8.	.03		•	•		.85	. 10	•	90	•
∞	Status in community*										.15	.15					.15	.15		.16	٠.
9	Recognition for work										. 45	.42					. 25	. 24		. 18	٠.
10.	Boss wbm up										.58	. 30	.35				.17	. 22		. 23	Ÿ.
11.	Bosses who trained men well											. 30					. 14	. 26		.19	-
12.	Adv poss*																.17	.14		.17	•
13.	Admin pol fairly*														•		.0	.11		. 60	•
14.	Well paid														•		.05	.07	•	.01	٠.
15.	Job security																.11	. 26		.10	٠.
16.	Did work alone**																. 26	.05		.02	•
17.	High degree of responsibility																	.18		.15	•
18.	Coworkers easy to make friends**																			. 21	٠.
19.	Good working conditions																			. 17	•
20.	Do things for others																				Ξ.
21.	Busy all time*★																				

Table B-5--Varimax rotated factor matrix after rotation with Kaiser normalization: experiences first job.

	Variables	Job-Challenge Factor 1	Work-Setting Factor 2	Security Factor 3	Autonomy** Factior 4	Working** conditions Factor 5	Busy-All** the time Factor 6
1	Make use of ability	. 63	.25	05	60	2.	.10
2.	Ach from job	.65	. 28	09	01	.21	.13
33	Try out ideas	02.	.17	.02	.17	01	05
4.	Decisions on own	. 62	.18	.14	.40	16	03
5.	Variety on job	.49	90.	01	.07	.10	.13
6.	Work itself	. 64	. 26	10	.05	. 43	90.
7.	Tell others what to do*	.36	10	90.	01	31	80.
∞	Status in community	.37	40.	.18	.02	. 22	.01
6	Recognition for work	.35	.53	.16	.15	.21	08
10.	Boss wbm up	.13	.75	90.	.13	.14	.01
11.	Bosses who trained men well	. 23	2.	.03	.03	. 18	.03
12.	Adv poss*	.27	.35	.18	.03	.12	.16
13.	Admin pol fairly*	.03	.41	. 25	09	.16	90
14.	Well paid	01	.17	.42	14	8.	8.
15.	Job security	01	2.	. 24	.07	.17	90.
16.	Did work alone	20.	.03	08	.41	60.	.07
17.	High degree responsibility	.31	.05	.02	.54	.18	80.
18.	Coworkers easy to make friends	.12	.17	.14	.13	.38	4.
19.	Good Working conditions	80.	. 26	.12	.12	.47	19
8	Do things for others	.15	.15	.05	.10	.29	60.
21.	Busy all time	.19	8.	80.	.16	03	.75

* Items deleted to increase reliability of factor

** Factors deleted from analysis

Table B-6--Factor-score correlation coefficients: experiences first job.

	Variables	Job-Challenge Factor 1	Work-Setting Factor 2	Security*** Factor 3	Autonomy ** Factor 4	Working** conditions Factor 5	Busy-All** the time Factor 6
÷	. Make use of ability	.18	2.	07	18	07	.03
2	. Ach from job	.19	₽.	17	15	90.	90.
т т	. Try out ideas	.25	2	01	ş.	10	11
4.	. Decisions on own	.22	01	.18	35	31	15
S.	Variety on job	.11	05	01	02	.02	.04
9	. Work itself	. 24	07	21	10	.39	00:-
7.	. Tell others what to do*	.12	04	.07	04	18	8.
œ.		80.	08	.15	 2	.10	01
9.	. Recognition for work	.01	.18	.12	90.	.02	08
10.	Boss whom up	15	.50	07	60.	08	.04
11.	Bosses who trained men well	20	. 28	90	05	02	.03
12.	Adv poss*	.02	80.	. 11	03	01	.07
13.	. Admin pol. fairly*	03	.10	.17	08	.02	03
14.	. Well paid	0	.02	.32	11	02	.01
15.	Job security	01	03	.16	.02	80.	.02
16.	. Did work alone	90*-	8.	08	. 24	.03	.01
17.	. High degree of responsibility	0	07	.01	.39	60.	.01
18.	. Coworkers easy to make friends	02	03	60.	.04	.19	.01
19.	. Good working conditions	20.	.01	80.	.07	.26	11
80.		11	02	.02	.02	.13	.04
21.	. Busy all time	02	02	. 08	60.	01	.73
3	4. 74 1.1.4. 1.4. 0.0.	13.1.2124 6. 6					

* Items deleted to increase reliability of factor

** Factors deleted from analysis

^{***} On the basis of content and similarity to Expectations factors, these items were combined with Factor 2, for a Work-Setting Experiences factor almost identical to the Work-Setting Expectations factor. This provided a tighter and more consistent analytical framework.

(A)

4.4

Table B-7--Interitem Spearman-Rho correlation coefficients for ranked job needs (For determining need factors).

1	Variables														
		2	3	4	5	9	7	∞	0	10	11	12	13	14	15
1,	. Achievement*	.07	.16	07	09	18	14	20	02	17	10	80.	.05	.02	14
Ν	2. Use Own Ideas*		.19	.05	60 .	14	4	26	08	25	11	10	03	.10	26
ന്	3. Use Abilities*			07	60	27	10	21	8.	15	13	01	.03	05	21
4	4. Responsibility**				.17	08	01	16	05	24	03	18	11	23	40.
Š,	5. Tell Others What to do **					8.	09	15	17	15	90.	19	05	25	02
٧	Good Pav***						Ö	9	ò	Č	5	7	Ţ	Ġ	č
Ó							. 0	8	۰.0	3.	ţ.	12	14	08	2
7	7. Advancement***							40	; 2	12	05	13	07	.07	02
œ́	. Job Security***								16	60.	15	11	17	05	60.
9.	. Boss Who Back Me Up									03	.01	.02	04	.05	29
10.	. Good Working Conditions										05	01	08	01	05
11.	. Recognition											13	11	02	9.
12.	. Work Itself												60.	.03	13
13.	. Variety													11	60
14.	. Fair Policies														19
15.	. Status in Community														

^{*} Need for Achievement ** Need for Power (eliminated from further analysis) *** Need for Security

Table B-8--Terminal factor correlation matrix.

	Factors	2	3 4	2	9	7	∞	0	51	11	12	13	14	15	16	17	18	19
1.	1. Work-Related Background	•	90 20	00	00	01	.02	.02	.05	.03	02	.01	02 -	04	.0	60.	. 10	05
9. %	Need for Security Need for Achievement	4.	4601	.05	.05	8. 8.	05 .03	03	.02	05	. 06 .	.03	.01	. 90.	.07 -	- 03	02	.11
4. 7.	Expectations for Job Challenge (first job) Expectations for Work-Setting (first job)			2.	. 46	. 23	9.	80.	08	04	. 42	.21	.18	.06	.19	.05	.08	.11
6.	6. Experiences with Job Challenge (first job)7. Experiences with Work-Setting (first job)					.46	04	05	26.	.05	. 63	.39	.38	.05	.45	.10	.31	. 22
8. 9. 10.	Expectations for Job Challenge (present job) Expectations for Work-Setting (present job) Experiences with Job Challenge (present job) Experiences with Work-Setting (present job)								.83	88.83	. 00	.02	. 05 . 05 . 05	.03	.05	.03	. 60.	37 30 38
12. 13. 14. 15.	 12. Satisfaction with Work 13. Satisfaction with Supervision 14. Satisfaction with People 15. Satisfaction with Pay 16. Satisfaction with Promotion 											49	.51	.15	.41 .47 .21	.19 .10 .10 .14	.22 .29 .17 04	.15 .17 .13 .15
17. 18.	 Self-Perceived Success Perceived Company Rating of Success 																.70	.10

19. Turnover

APPENDIX C

Analyses of Variance

Summary Statistics

Table C-1--Analyses of variance summary statistics for effects on different aspects of satisfaction (H1).

Ι.	Satisfaction with Work	df	SS	f	р
	A. Work-Related Background	1	32.427	. 241	. 623
	B. nAch	1	119.715	1.140	. 286
	C. Job-Challenge Expectations	1	7270.576	69.205	.001
	D. Job-Challenge Experiences	1	33395.099	317.8 7 0	.001
	АхВ	1	29.876	. 284	.594
	ΑxC	1	284.738	2.710	.100
	ΑxD	1	3.593	.034	.853
	ВхС	1	2.478	.024	. 878
	ВхD	1	584.580	5.564	.019
	C x D	1	501.158	4.770	.029
	AxBxC	1	37.031	.352	. 553
	AxBxC	1	10.582	. 101	. 751
	$A \times C \times D$	1	122.413	1.165	. 281
	$B \times C \times D$	1	1.711	.016	. 898
	$A \times B \times C \times D$	1	2.839	.027	. 869
	Explained	15	58950.486	37.408	.001
	Residual	993	104323.714		

Π.	Satisfaction with Supervision	\mathbf{df}	SS	f	p
	A. Work-Related Background	1	31.793	. 220	. 639
	B. nAch	1	215.934	1.232	. 267
	C. Job-Challenge Expectations	1	1374.235	7.841	.005
	D. Job-Challenge Experiences	1	16431.759	93.752	. 001
	АхВ	1	.487	.003	. 958
	ΑxC	1	98.103	.560	.455
	ΑxD	1	242.305	1.382	. 240
	ВхС	1	524.962	2.995	.084
	B x D	1	200.951	.1.47	. 285
	C x D	1	377.289	2.153	. 143
	AxBxC	1	62.673	.358	. 550
	AxBxD	1	168.376	.961	. 327
	AxCxD	1	51.915	. 296	.586
	B x C x D	1	17.580	.100	. 752
	AxBxCxD	1	215.046	1.227	. 268
	Explained	15	25715.160	9.781	.001
	Residual	993	174040.751		

Table C-1--Continued

III.	Satisfaction with People	\mathbf{df}	SS	f	р
	A. Work-Related Background	1	48.919	.355	.552
	B. nAch	1	422.144	3.072	.080
	C. Job-Challenge Expectations	1	298.946	2.175	. 141
	D. Job-Challenge Experiences	1	14897.461	108.399	.001
	АхВ	1	401.328	2.920	.088
	ΑxC	1	102.619	.747	.388
	A x D	1	162.464	1.182	. 277
	ВхС	1	439.381	3.197	.074
	ВхD	1	323.667	2.355	.125
	Cx D	1	110.238	.802	.371
	$A \times B \times C$	1	293.306	2.134	. 144
	$A \times B \times D$	1	306.509	2.230	. 136
	$A \times C \times D$	1	31.699	.231	. 631
	$B \times C \times D$	1	148.819	1.083	. 298
	$A \times B \times C \times D$	1	72.849	.530	. 467
	Explained	15	21511.609	10.435	.001
	Residual	99 3	136469.527		

IV.	Satisfaction with Pay	df	SS	f	P
	A. Work-Related Background	1	226.013	7.430	.007
	B. nAch	1	68.447	2.176	. 141
	C. Job-Challenge Expectations	1	5.308	.169	. 681
	D. Job-Challenge Experiences	1	80.278	2.552	. 110
	АхВ	1	167.157	5.314	.021
	ΑxC	1	11.292	.359	. 549
	ΑxD	1	9.615	.306	. 580
	ВхС	1	42.577	1.353	. 245
	B x D	1	95.625	3.040	.082
	C x D	1	71.404	2.270	.732
	AxBxC	1	34.912	1.110	. 292
	$A \times B \times D$	1	27.237	. 966	.352
	$A \times C \times D$	1	8.423	.268	. 605
	$B \times C \times D$	1	6.428	. 204	.652
	Explained	15	1060.829	2.248	.004
	Residual	993	31237.831		

Table C-1--Continued

•	Satisfaction with Promotion	d f	SS	f	p
	A. Work-Related Background	1	13.971	.230	. 632
	B. nAch	1	72.775	1.060	. 302
	C. Job-Challenge Expectations	1	557 .4 07	8.180	.004
	D. Job-Challenge Experiences	1	5755.060	84.453	.001
	АхВ	1	13.806	.203	. 653
	ΑxC	1	13.172	.193	. 660
	A x D	1	4.679	.069	. 793
	ВхС	1	27.555	.404	. 525
	ВхD	1	107.263	1.574	. 210
	C x D	1	199.510	2.928	. 087
	A x B x C	1	36.233	.532	.466
	$A \times B \times D$	1	4.663	.068	. 794
	$A \times C \times D$	1	51.274	.752	. 386
	$B \times C \times D$	1	12.386	.182	. 670
	AxBxCxD	1	55.258	.811	. 368
	Explained	15	9003.502	8.808	.001
	Re si dual	993	67668.488		

Table C-2--Analysis of variance summary statistics for effects on different aspects of satisfaction (H2).

I.	Satisfaction with Work	df	SS	f	p
	A. Work-Related Background	1	32.427	.241	. 623
	B. nSec.	1	148.537	1.105	. 294
	C. Work-Setting Expectations	1	3790.564	28.187	.001
	D. Work-Setting Experiences	1	17154.505	127.565	.001
	ΑxΒ	1	21.021	.156	. 693
	ΑxC	1	88.293	. 657	.418
	$A \times D$	1	199.977	1.487	. 273
	ВхС	1	159.471	1.195	. 277
	ВхD	1	1.171	.009	. 976
	C x D	1	44.758	.333	. 564
	AxBxC	1	181.269	1.348	. 746
	$A \times B \times D$	1	24.951	.186	. 667
	$A \times C \times D$	1	365.223	2.716	. 100
	$B \times C \times D$	1	422.221	3.940	.077
	$A \times B \times C \times D$	1	125.802	.935	. 334
	Explained	15	29742.896	14.745	.001
	Residual	991	133266.511		

Satisfaction with Supervision	d f	SS	f	p
A. Work-Related Background	1	31.793	. 220	.639
B. nSec.	1	66.679	.461	.497
C. Work-Setting Expectations	1	2204.896	15.253	.001
D. Work-Setting Experiences	1	42360.482	293.034	.001
ΑxΒ	1	415.388	2.873	.090
ΑxC	1	.010	.000	.993
ΑxD	1	33.713	. 233	. 629
ВхС	1	153.243	1.060	.303
B x D	1	108.545	.751	.386
C x D	1	630.490	4.361	.037
AxBxC	1	5.335	.037	. 848
$A \times B \times D$	1	4.027	.028	. 867
$A \times C \times D$	1	4.629	.032	. 858
$B \times C \times D$	1	406.691	2.813	.094
$A \times B \times C \times D$	1	130.758	. 905	.342
Explained	15	56062.598	25.855	.001
Residual	991	143257.110		

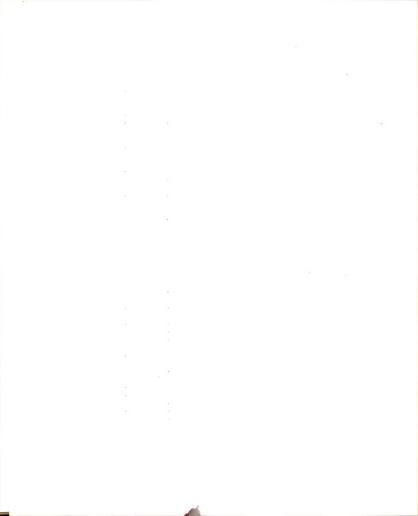


Table C-2--Continued

[.	Satisfaction with People	df	SS	f	p
	A. Work-Related Background	1	48.919	. 355	. 552
	B. nSec.	1	11.322	.082	. 77 5
	C. Work-Setting Expectations	1	3085.201	22.378	. 001
	D. Work-Setting Experiences	1	10979.763	79.640	.001
	ΑxΒ	1	529.987	3.844	.050
	Α×C	1	6.103	.044	.833
	ΑxD	1	.001	.000	. 998
	ВхС	1	111.857	.811	.368
	ВхD	1	.843	.006	938
	C x D	1	925.294	6.711	. 010
	AxBxC	1	120.961	.877	.349
	$A \times B \times D$	1	.669	.003	. 944
	$A \times C \times D$	1	45.305	.329	. 567
	$B \times C \times D$	1	96.065	. 697	. 404
	$A \times B \times C \times D$	1	476.210	3.453	. 063
	Explained	15	21169.281	10.237	.001
	Residual	991	136627.146		

IV.	Satisfaction with Pay	df	SS	f	p
	A. Work-Related Background	1	226.013	7.430	.007
	B. nSec.	1	2.961	. 097	. 755
	C. Work-Setting Expectations	1	167.298	5.500	.019
	D. Work-Setting Experiences	1	1003.122	32.977	.001
	АхВ	1	1 0 2.529	3.371	.067
	ΑxC	1	2.044	.067	.796
	ΑxD	1	70.689	2.324	.128
	ВхС	1	.032	.001	. 974
	B x D	1	54.238	2.783	.182
	C x D	1	28.642	.942	.332
	AxBxC	1	.356	.012	.914
	$A \times B \times D$	1	29.184	.959	.328
	$A \times C \times D$	1	55.000	1.808	.179
	$B \times C \times D$	1	.030	.001	. 975
	$A \times B \times C \times D$	1	60.207	1.979	.160
	Explained	15	2125.066	4.657	.001
	Residual	991	30145.246		

Table C-2--Continued

Satisfaction with Promotion	df	SS	f	р
A. Work-related Background	1	13.971	. 230	. 632
B. nSec	1	307.948	5.066	. 025
C. Work-Setting Expectations	1	1446.160	23.789	.001
D. Work-Setting Experiences	1	10048.324	165.296	.001
$A \times B$	1	9.169	.151	. 698
ΑxC	1	16.793	. 276	.599
A x D	1	10.739	.177	. 674
ВхС	1	170.075	2.798	. 095
B x D	1	31.196	.513	.474
C x D	1	190.516	3.134	.077
A x B x C	1	32.423	.533	.465
$A \times B \times D$	1	180.596	2.971	.085
$A \times C \times D$	1	5.812	.096	. 757
$B \times C \times D$	1	6.681	.110	. 746
$A \times B \times C \times D$	1	134.454	2.212	.137
Ex plaine d	15	16264.662	17.837	.001
Residual	991	60242.746		

Table C-3--Analysis of variance summary statistics for effects on aspects of perceived success (H3).

Ι.	Self-Perceived Success	df	SS	f	р
	A. Work-Related Background	1	68.129	9.100	.003
	B. nAch	1	4.179	.547	.460
	C. Job-Challenge Expectations	1	10.178	1.332	. 249
	D. Job-Challenge Experiences	1	18.712	2.448	.118
	ΑxΒ	1	30.547	3.996	.046
	ΑxC	1	52.960	6.929	.009
	ΑxD	1	7.869	1.029	.311
	ВхС	1	4.903	. 641	.423
	B x D	1	.532	.070	. 792
	C x D	1	1.634	.214	. 644
	AxBxC	1	11.685	1.529	.217
	$A \times B \times D$	1	13.373	1.750	. 186
	$A \times C \times D$	1	1.832	. 240	. 625
	BxCxD	1	.913	.119	. 730
	AxBxCxD	1	5.080	.665	.415
	Explained	15	243.066	2.120	.008
	Residual	993	7590.066		

Perceived Company Rating	df	SS	f	р
A. Work-Related Backgroun	d 1	67.588	8.859	.003
B. nAch	1	18.166	2.272	.132
C. Job-Challenge Expectation	ons 1	29.002	3.628	.057
D. Job-Challenge Experience	es 1	34.312	4.292	.039
АхВ	1	29.263	3.660	.056
AxC	1	24.897	3.114	.078
АхД	1	4.201	.525	. 469
ВхС	1	2.148	. 269	. 604
ВхГ	1	3.091	.387	.534
СхI	1	3.299	.413	.521
A x B x C	1	2.183	.273	. 601
АхвхГ	1	3.525	.441	.507
AxCxI	1	7.283	.911	.340
ВхСхД	1	1.514	.189	. 664
$A \times B \times C \times D$	1	.537	.067	. 796
Explained	15	276.252	2.304	.003
Residual	993	7938.850		

Table C-4--Analysis of variance summary statistics for effects on different aspects of perceived success (H4).

_	Self-Perceived Success	df	SS	f	p
	A. Work-Related Background	1	68.129	9.100	. 003
	B. nSec	1	2.368	.316	.574
	C. Work-Setting Expectations	1	2.314	. 309	.578
	D. Work-Setting Experiences	1	194.367	25.962	.001
	ΑxΒ	1	.022	.003	. 957
	ΑxC	1	2.786	.372	. 542
	A x D	1	26.643	3.559	. 060
	ВхС	1	.121	.016	. 899
	ВхD	1	12.430	1.660	. 198
	C x D	1	8.539	1.141	. 286
	AxBxC	1	. 625	.084	. 773
	$A \times B \times D$	1	. 580	.078	. 781
	AxCxD	1	10.860	1.451	. 229
	$B \times C \times D$	1	13.226	1.767	.184
	$A \times B \times C \times D$	1	15.407	2.058	. 152
	Explained	15	387.994	3.455	.001
	Residual	991	7419.140		

ΙΙ.	Perceived Company Rating	df	SS	f	p
	A. Work-Related Background	1	67.588	8.859	.003
	B. nSec	1	8.119	1.064	. 303
	C. Work-Setting Expectations	1	17.735	2.325	.128
	D. Work-Setting Experiences	1	394.516	51.712	. 001
	ΑxΒ	1	1.496	.196	. 658
	AxC	1	2.140	.280	.597
	A x D	1	16.285	2.135	. 144
	ВхС	1	3.368	.441	.507
	B x D	1	7.977	1.046	. 307
	C x D	1	.211	.028	. 868
	$A \times B \times C$	1	19.735	2.587	. 108
	$A \times B \times D$	1	. 095	.012	. 911
	$A \times C \times D$	1	4.077	.534	. 465
	$B \times C \times D$	1	1.326	.174	. 677
	$A \times B \times C \times D$	1	1.378	.181	. 671
	Explained	15	654.682	5. 721	. 001
	Residual	9 91	7560.374		

Table C-5--Analysis of variance summary statistics for effects on turnover. (H5).

Turnover	df	SS	f	p
A. Work-Related Background	1	.345	1.415	. 234
B. nAch	1	1.022	4.285	.039
C. Job-Challenge Expectations	1	. 001	.004	. 947
D. Job-Challenge Experiences	1	8.169	34.236	.001
ΑxΒ	1	.167	. 698	.404
ΑxC	1	.301	1.260	. 262
ΑxD	1	. 283	1.187	. 276
B x C	1	.571	2.394	.122
B x D	1	.077	.321	. 571
C x D	1	.021	.088	. 766
AxBxC	1	.169	. 7 06	. 401
$A \times B \times D$	1	1.522	6.377	. 01
$A \times C \times D$	1	.473	1.982	. 160
$B \times C \times D$	1	. <i>7</i> 66	3.210	.073
AxBxCxD	1	.107	.449	. 503
Explained	15	15.032	4.200	.001
Residual	99 3	236.948		

Table C-6--Analysis of variance summary statistics for effects on turnover (H6).

urnover	df	SS	f	p
A. Work-Related Background	1	.345	1.415	. 234
B. nSec	1	2.260	9.284	.002
C. Work-Setting Expectations	1	.036	.147	. 702
D. Work-Setting Experiences	1	4.290	17.619	.001
ΑxΒ	1	.269	1.107	. 293
AxC	1	.008	.034	. 854
ΑxD	1	.027	.113	. 737
ВхС	1	.846	3.474	.063
B x D	1	. 247	1.014	.314
C x D	1	.008	.033	. 856
$A \times B \times C$	1	.021	085	. 770
$A \times B \times D$	1	.046	.188	. 665
$A \times C \times D$	1	.023	. 093	. 761
$B \times C \times D$	1	.061	. 250	. 617
$A \times B \times C \times D$	1	1.021	4.194	. 041
Explained	15	10.177	2.787	.001
Residual	991	241.269		

Table C-7--Analysis of variance summary statistics for the effects on different aspects of satisfaction (H9).

Ι.	Satisfaction with Work	df	SS	f	р
	A. Performance Review	1	1454.693	10.952	.001
	B. nAch	1	111.274	1.070	. 301
	C. Job-Challenge Expectations	1	7036.923	67.674	.001
	D. Job-Challenge Experiences	1	32194.332	309.611	.001
	A x B	1	143.846	1.383	. 240
	AxC	1	25.723	.247	. 619
	A x D	1	7.635	.073	.786
	B x C	1	3.251	.031	.860
	B x D	1	483,453	4.649	.031
	C x D	1	584.495	5.621	.018
	AxBxC	1	72.991	.702	.402
	AxBxD	1	184.554	1.775	.183
	AxCxD	1	3.817	.037	. 848
	BxCxD	1	11.460	.110	. 740
	AxBxCxD	1	269.203	2.589	. 108
	Explained	15	59594.416	38.208	.001
	Residual	987	102631.249		

п.	Satisfaction with Supervision	df	SS	f	p
	A. Performance Review	1	868.302	6.058	.014
	B. nAch	1	295.039	1.683	.195
	C. Job-Challenge Expectations	1	1205.502	6.878	.009
	D. Job-Challenge Experiences	1	15453.304	88.170	.001
	A x B	1	16.737	.095	.757
	AxC	1	468.171	2.671	.102
	A x D	1	221.069	1.261	. 262
	B x C	1	508.710	2.902	.089
	B x D	1	322.074	1.838	.176
	C x D	1	385.382	2.199	.138
	AxBxC	1	9.156	.052	.819
	AxBxD	1	16.167	.092	.761
	AxCxD	1	96.775	.552	.458
	BxCxD	1	23.815	.136	.712
	AxBxCxD	1	17.982	.103	.749
	Explained	15	26318.266	10.011	.001
	Residual	987	172989.495		

Table C-7--Continued

III.	Satisfaction with People	d f	SS	f	р
	A. Performance Review	1	27.912	.202	. 653
	B. nAch	1	423.135	3.065	.080
	C. Job-Challenge Expectations	1	292.332	2.118	.146
	D. Job-Challenge Experiences	1	14755.566	106.883	.001
	АхВ	1	46.479	.337	.562
	ΑxC	1	442.253	3.203	.074
	ΑxD	1	23.808	.172	. 678
	ВхС	1	423.066	3.064	.080
	B x D	1	415.817	3.012	.083
	C x D	1	69.753	.505	.477
	$A \times B \times C$	1	52.623	. 381	. 537
	$A \times B \times D$	1	318.059	2.304	. 129
	$A \times C \times D$	1	353.322	2.559	.110
	$B \times C \times D$	1	196.440	1.423	.233
	$A \times B \times C \times D$	1	397.618	2.880	.090
	Explained	15	21679.858	10.469	.001
	Residual	987	136259.127		

 Satisfaction with Pay	df	SS	f	p
A. Performance Review	1	2.823	.092	. 762
B. nAch	1	67.932	2.146	.143
C. Job-Challenge Expectations	1	8.028	.254	.615
D. Job-Challenge Experiences	1	65.220	2.060	.152
АхВ	1	31.279	.988	.320
ΑxC	1	186.777	5.900	.015
ΑxD	1	12.469	.394	.530
ВхС	1	42.845	1.353	. 245
B x D	1	121.926	3.851	. 050
C x D	1	49.216	1.555	.213
$A \times B \times C$	1	.019	.001	. 980
$A \times B \times D$	1	6.057	.191	.662
$A \times C \times D$	1	.809	.026	. 873
$B \times C \times D$	1	6.468	. 204	. 651
$A \times B \times C \times D$	1	36.055	1.139	.286
Explained	15	709.363	1.494	.100
Residual	987	31246.079		

Table C-7--Continued

V. Satisfaction with Promotion	df	SS	f	р
A. Performance Review	1	183.716	3.014	.083
B. nAch	1	39.021	.576	.448
C. Job-Challenge Expectations	1	499.267	7.365	.007
D. Job-Challenge Experiences	1	5542.882	81.763	.001
ΑxΒ	1	85.735	1.265	.261
ΑxC	1	91.722	1.353	. 245
A x D	1	66.159	.976	. 323
ВхС	1	19.225	.284	.594
B x D	1	119.175	1.758	.185
C x D	1	187.632	2.768	.096
$A \times B \times C$	1	.006	.000	. 992
$A \times B \times D$	1	23.792	.351	.554
AxCxD	1	6.904	.102	.750
$B \times C \times D$	1	22.810	.336	.562
AxBxCxD	1	93.982	1.386	.239
Explained	15	9361.731	9.206	.001
Residual	987	66910.793		

Table C-8--Analysis of variance summary statistics for the effects on different aspects of satisfaction (H10).

I.	Satisfaction with Work	df	SS	f	р
	A. Performance Review	1	1454.693	10.952	.001
	B. nSec	1	210.408	1.584	. 208
	C. Work-Setting Expectations	1	3723.224	28.031	.001
	D. Work-Setting Experiences	1	16298.885	122.707	.001
	ΑxΒ	1	131.951	. 993	.319
	AxC	1	2.125	.016	.899
	ΑxD	1	30.248	.228	. 633
	ВхС	1	129.906	.978	. 323
	B x D	1	38.831	.292	. 589
	C x D	1	54.390	.409	.522
	AxBxC	1	100.008	. 7 53	. 386
	$A \times B \times D$	1	.290	.002	. 963
	$A \times C \times D$	1	626.120	4.714	.030
	$B \times C \times D$	1	276.321	2.080	. 150
	AxBxCxD	1	20.900	.157	. 692
	Explained	15	31125.989	15.622	.001
	Residual	985	130834.898		

II.	Satisfaction with Supervision	df	SS	f	p
	A. Performance Review	1	868.302	6.058	.014
	B. nSec	1	76.051	.531	. 467
	C. Work-Setting Expectations	1	2146.165	14.973	.001
	D. Work-Setting Experiences	1	40797.548	284.620	.001
	ΑxΒ	1	185.271	1.293	. 256
	Α×C	1	266.514	1.859	.173
	A x D	1	456.422	3.184	. 075
	ВхС	1	195.683	1.365	. 243
	B x D	1	178.303	1.244	. 265
	C x D	1	497.773	3.473	.063
	$A \times B \times C$	1	321.321	2.242	.135
	$A \times B \times D$	1	25.426	.177	.674
	$A \times C \times D$	1	836.282	5.834	.016
	$B \times C \times D$	1	277.434	1.935	.164
	$A \times B \times C \times D$	1	66.558	.464	. 496
	Explained	15	57681.543	26.827	.001
	Residual	985	141190.327		

y<u>k</u>

Table C-8--Continued

ш.	Satisfaction with People	df	SS	f	р
	A. Performance Review	1	27.912	. 202	. 653
	B. nSec	1	26.276	.190	. 663
	C. Work-Setting Expectations	1	3078.941	22.288	.001
	D. Work-Setting Experiences	1	10782.033	78.050	.001
	ΑxΒ	1	48.208	.349	.555
	AxC	1	485.464	3.514	. 061
	ΑxD	1	594.905	4.306	.038
	ВхС	1	135.391	. 980	.322
	B x D	1	.007	.000	. 995
	C x D	1	778.378	5.635	.018
	$A \times B \times C$	1	133.836	. 969	.325
	$A \times B \times D$	1	93.096	.674	.412
	$A \times C \times D$	1	301.115	2.180	.140
	$B \times C \times D$	1	43.483	.315	.575
	$A \times B \times C \times D$	1	245.448	1.777	.183
	Explained	15	21683.975	10.465	.001
	Residual	985	136070.077		

IV.	Satisfaction with Pay	df	SS	f	Р
	A. Performance Review	1	2.823	.092	. 762
	B. nSec	1	15.917	.518	. 472
	C. Work-Setting Expectations	1	151.408	4.927	.027
	D. Work-Setting Experiences	1	940.542	30.609	.001
	ΑxΒ	1	12.922	.421	.517
	AxC	1	45.100	1.468	.226
	ΑxD	1	1.960	. 064	.801
	ВхС	1	.870	.028	.866
	B x D	1	27.641	. 900	.343
	C x D	1	19.343	.629	.428
	$A \times B \times C$	1	1.228	.040	.842
	$A \times B \times D$	1	4.106	.134	.715
	$A \times C \times D$	1	8.832	.287	.592
	$B \times C \times D$	1	24.318	.791	.374
	AxBxCxD	1	15.934	.519	.472
	Explained	15	1659.686	3.601	.001
	Residual	985	30267.149		



Table C-8--Continued.

V. Satisfaction with Pro-	motion	df	SS	f	р
A. Performance Re	view	1	183.716	3.014	.083
B. nSec		1	254.901	4.182	. 041
C. Work-Setting Ex	pectations	1	1413.292	23.188	.001
D. Work-Setting Ex	periences	1	9666.925	158.609	.001
	ΑxΒ	1	.333	.005	. 941
	ΑxC	1	213.046	3.496	.062
	ΑxD	1	.161	.003	.959
	BxC	1	179.035	2.937	.087
	BxD	1	37 . 757	.619	. 431
	C x D	1	127.590	2.093	.148
F	x B x C	1	5 .7 38	.094	.759
F	X B x D	1	.144	.002	. 961
F	XCxD	1	24.254	.398	.528
F	3 x C x D	1	2.740	.045	. 832
АхІ	3 x C x D	1	56.326	.924	.337
Explained		15	16074.114	17.582	.001
Residual		985	60034.108		

Table C-9--Analysis of variance summary statistics for the effects on aspects of perceived success (H11).

Self-Perceived Success	df	SS	f	р
A. Performance Review	1	36.672	4.871	. 028
B. nAch	1	6.527	.845	.358
C. Job-Challenge Expectations	1	6.536	.846	.358
D. Job-Challenge Experiences	1	13.281	1.719	.190
ΑxΒ	1	2.470	.320	. 5 7 2
ΑxC	1	3.139	. 406	.524
ΑxD	1	.881	.114	. 736
ВхС	1	6.152	. 796	.372
B x D	1	1.476	.191	.662
C x D	1	4.835	.626	.429
A x B x C	1	39.896	5.165	. 023
$A \times B \times D$	1	1.711	.221	. 638
$A \times C \times D$	1	2.848	. 369	. 544
$B \times C \times D$	1	1.443	.187	. 666
$A \times B \times C \times D$	1	33.235	4.302	.038
Explained	15	188.123	1.624	.062
Residual	987	7624.288		

п.	Perceived Company Rating	df	SS	f	р
	A. Performance Review	1	8.064	1.042	.308
	B. nAch	1	23.891	2.948	. 086
	C. Job-Challenge Expectations	1	23.556	2.907	. 089
	D. Job-Challenge Experiences	1	28.841	3.559	. 060
	A x B	1	12.412	1.531	.216
	ΑxC	1	3.806	.470	.493
	A x D	1	5.520	. 681	.40 9
	ВхС	1	.836	.103	. 748
	ВхD	1	5.536	. 683	.409
	C x D	1	5.125	.632	.427
	AxBxC	1	10.109	1.247	. 264
	$A \times B \times D$	1	2.690	. 332	.565
	AxCxD	1	.907	.112	.738
	$B \times C \times D$	1	3.022	. 373	.542
	$A \times B \times C \times D$	1	10.200	1.259	.262
	Explained	15	183.354	1.508	.095
	Residual	987	7998.914		

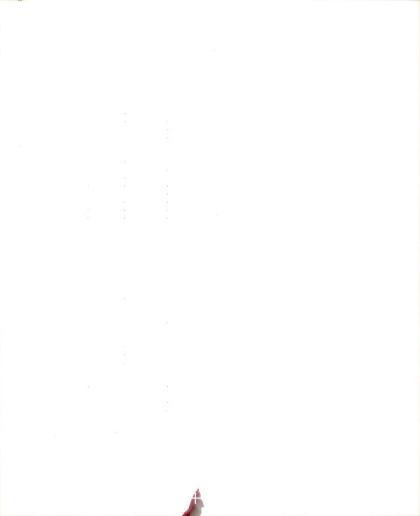


Table C-10--Analysis of variance summary statistics for effects on aspects of perceived success (H12).

Self-Perceived Success	df	SS	f	р
A. Performance Review	1	36.672	4.871	.028
B. nSec	1	6.053	.804	.370
C. Work-Setting Expectations	1	2.164	.288	.592
D. Work-Setting Experiences	1	178.849	23.758	.001
АхВ	1	10.8 1 6	1.437	. 231
ΑxC	1	11.563	1.536	.216
ΑxD	1	15.032	1.997	.158
ВхС	1	.840	.112	.738
B x D	1	5.359	.712	.399
C x D	1	10.437	1.386	.239
$A \times B \times C$	1	9.724	1.292	. 256
$A \times B \times D$	1	4.246	.564	.453
$A \times C \times D$	1	8.215	1.091	. 296
$B \times C \times D$	1	14.551	1.933	.165
A x B x C x D	1	12.037	1.599	. 206
Explained	15	371.429	3.289	.001
Residual	985	7415.087		

Perceiv	red Company Ratings	df	SS	f	p
A. Per	rformance Review	1	8.064	1.042	.308
B. nSe	ec	1	1 7.40 9	2.250	.134
C. Wo	ork-Setting Expectations	1	20.321	2.626	. 105
D. Wo	ork-Setting Experiences	1	369.036	47.687	. 001
	ΑxΒ	1	8.732	1.128	. 288
	ΑxC	1	9.891	1.278	.259
	A x D	1	.133	.017	.896
	ВхС	1	2.360	.305	.581
	ВхD	1	6.069	.784	.376
	C x D	1	.329	.042	.837
	AxBxC	1	.717	.093	. 761
	$A \times B \times D$	1	.750	.097	.756
	$A \times C \times D$	1	. <i>7</i> 07	.091	. 763
	$B \times C \times D$	1	2.707	.350	. 554
	AxBxCxD	1	21 .4 05	2.766	.097
Explair	ned	15	559.642	4.821	.001
Residu		985	7622.579		



Table C 11--Analysis of variance summary statistics for effects on levels of turnover (H13).

Turnover	df	SS	f	р
A. Performance Review	1	1.921	7.988	.005
B. nAch	1	.816	3.440	.064
C. Job-Challenge Expectations	1	.000	.001	.981
D. Job-Challenge Experiences	1	7.721	32.544	.001
ΑxΒ	1	.121	.512	.474
ΑxC	1	.350	1.476	. 225
A x D	1	1.631	6.876	.009
ВхС	1	. 202	.853	.356
B x D	1	.149	.630	.428
C x D	1	.006	.025	. 874
$A \times B \times C$	1	.64 9	2.736	.098
$A \times B \times D$	1	.006	.027	870
AxCxD	1	.135	.570	.451
$B \times C \times D$	1	1.156	4.873	.028
$A \times B \times C \times D$	1	.000	. 000	.999
Explained	15	16.198	4.552	.001
Residual	987	234.173		

Table C-12--Analysis of variance summary statistics for effects on levels of turnover (H14).

Turnover	df	SS	f	p
A. Performance Review	1	1.921	7.988	.005
B. nSec	1	2.438	10.140	001
C. Work-Setting Expectations	1	.071	.295	.587
D. Work-Setting Experiences	1	3.788	15.754	.001
АхВ	1	.001	.006	. 938
ΑxC	1	.064	. 265	.607
ΑxD	1	.170	.709	.400
ВхС	1	.932	3.875	.049
B x D	1	.242	1.005	.316
C x D	1	.005	.023	.880
$A \times B \times C$	1	.342	1.424	.233
$A \times B \times D$	1	1.313	5.462	.020
$A \times C \times D$	1	.847	3.522	.061
$B \times C \times D$	1	.020	.083	. 773
$A \times B \times C \times D$	1	.365	1.517	.218
Explained	15	12.972	3.596	. 001
Residual	985	236.858		

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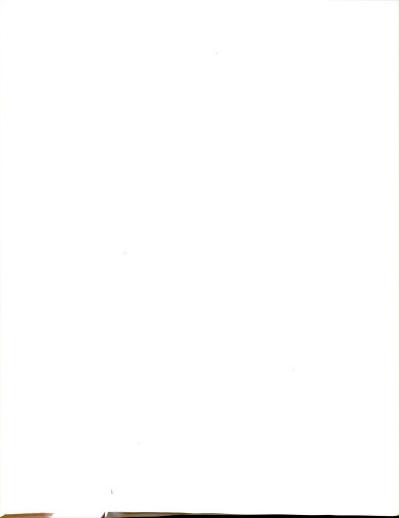
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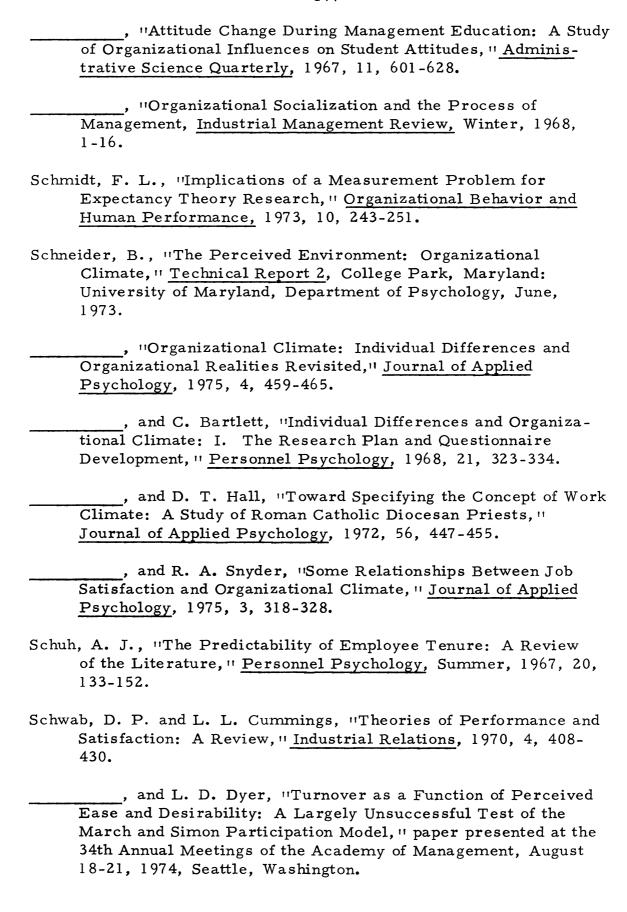
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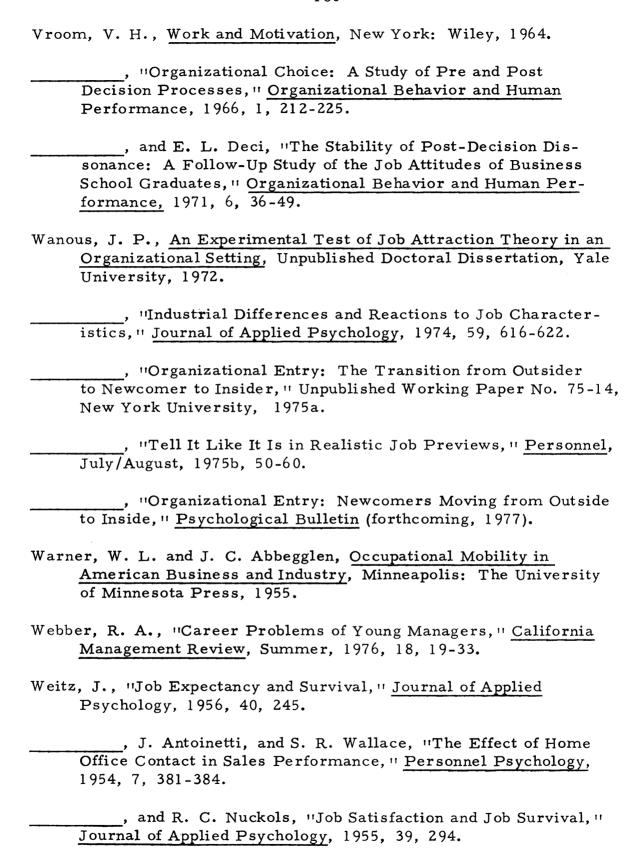
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