MOTIVATIONS FOR AND BARRIERS TO PARTICIPATION
IN TUITION-AID PROGRAMS AND RECOMMENDATIONS FOR THE
REDUCTION OF THE MAJOR BARRIERS
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**VITA**
CHAPTER I

INTRODUCTION TO THE STUDY

It is indicated in the educational literature that an increasingly large segment of enrollments at postsecondary institutions are adult learners (Morstain and Smart, 1977:665). Adult learners are defined by the National Center for Education Statistics as persons 17 or older, not enrolled full time in high school or college, but engaged in one or more activities of organized instruction (Peterson, 1979:15). According to a Census Bureau survey of 1975, there were 1.2 million students enrolled in college who were 34 years or older, many working or retired. The number of adult students increased rapidly in the early 1970's. Half the growth in college enrollment over the last decade was with part-time students. Among students under 35 years old, nearly half the growth was in two-year colleges, which attract many part-time students. By 1980, 30 percent of college students under age 34 were enrolled on a part-time basis (Lusterman, 1977:11).

The adult learner, accordingly, has attracted increasing interest from administrators of higher educational institutions. This interest has been stimulated in part by a projected steady state of decline in full-time (typically 18-22 years old) enrollment.
Corporate Employees

Among the new enrollees in colleges and universities are corporate employees who involve themselves in education through tuition-aid programs. Recent studies by the National Institute for Work and Learning in Washington, D.C. indicated employee tuition-aid benefits were offered by nine out of ten companies with 500 or more employees (Charner, 1980:50). McQuigg (1980:324) found that about 4.3 million employees of big businesses had taken courses offered on a voluntary basis either in-house or paid for through tuition-aid by corporations. In an economy where technological innovations change entire industries in a period of months, corporations have to expand their efforts to keep employees up-to-date, competitive and productive. From management's point of view, training is a question of survival. Corporations not only are responding to this need but they are responding to the need to offer educational assistance as a fringe benefit to their employees. Tuition-aid programs are part of this educational fringe benefit. Many analysts regard industry as the largest provider of adult education in the country. They cite the huge training programs of such corporate giants as International Business Machines, American Telephone and Telegraph, and Xerox, some of which are now granting bachelors' degrees and in at least one instance, Arthur D. Little, masters' degrees (Peterson, 1979:28).

The Conference Board report of 1977 (Lusterman, 1977:36) states that industry-sponsored education and training activities offered
outside the company after hours represents a sizable investment of up to 100 billion dollars by the private sector in the development of a potential population between 17 million and 25 million workers. Granted that such education reflects the "corporate mission," it can be assumed to serve the interests of the individuals. It can also be assumed as well, to serve a nation where success and personal well-being are widely defined by occupation and income level (Peterson, 1979:29).

Objectives of Corporate Tuition-Aid Programs

As Smith (1980:1) indicates, employers concur that the objectives of corporate tuition-aid programs are: to update knowledge and skills, to improve worker performance, and for personal development and growth. Employers concur that the three major outcomes of a tuition-aid plan are: greater worker effectiveness on the job, heightened career development and job mobility, and increased worker satisfaction. According to Shore (1979:81), employers emphasize the advantages of tuition-aid plans over other forms of company provided education and training in that employees participate on their own time and thus, production schedules are not affected. No employee salary or wage expenses are incurred, as is normal with internally provided programs. Further, overhead expenses are not incurred in the form of training, staff salaries, office space, and equipment.
STATEMENT OF THE PROBLEM

Cross and Zusman (1979:146) synthesized findings across 30 state and national surveys addressing nonparticipation in tuition-aid programs. Summarized were discrepancies between availability of tuition-aid programs and utilization of programs. Barriers to participation were classified under three headings: situational (cost, lack of time, income, occupational status, age, education, etc.); social-psychological (lack of confidence, too old to begin, tired of school, etc.); and institutional (scheduling, location, lack of courses, application and approval procedures, information, etc).

A National Manpower Institute report (1978:12) states that if tuition-aid would motivate more individuals in the work force to participate in more education and training programs, there would be potential benefits to employers, unions, individual employees, and the education system. Employers seek improved skills in their work forces and more satisfied employees; unions negotiate for tuition-aid to increase the work opportunities and life changes for their members; employees find new routes to career advancement or improved leisure skills; and education institutions find a new source of students and revenue.

Studies of the rate of worker participation in tuition-aid programs have placed average rates at between four percent (O'Meara, 1970) and ten percent (Bureau of National Affairs, 1972) for white collar workers.
The participation rate among blue and pink collar workers is even lower, an estimated one to two percent of those eligible (Charner, et al., 1978:19).

Tuition-aid in the private sector has been the subject of few systematic studies (Charner, 1980:2). More studies are needed to develop a broader knowledge base about tuition-aid and its use. Various forms of tuition-aid exist in a large number of companies but utilization rates of these plans are very low. According to figures from the Conference Board, companies spend over $2 billion annually in educational efforts (Luxenberg, 1979:27). But billions of dollars in tuition-aid available to employees are going unused every year.

PURPOSE OF THE STUDY

The purpose of this study was to: gather data about a specific population (employees of the Chesapeake and Potomac Telephone Company); identify motivational factors for participants; identify motivational factors for nonparticipants who considered being participants in the future; identify barriers to their participation in a tuition-aid program; identify barriers that had to be overcome by participants; compare motivations and barriers of participants and nonparticipants; and, make recommendations for reducing the barriers in order to increase participation.
NEED FOR THE STUDY

Administrators of post-secondary institutions need to know why these adult learners do or do not participate in educational programs. With this knowledge, they may be able to develop or refine curricula and procedures to serve this heterogeneous adult learner clientele (Morstain and Smart, 1977:666). Administrators of tuition-aid programs within corporations need to collect data and study the motivations for participation and barriers to participation of the employee population. Because of the increasing number of large corporations offering tuition-aid programs to their employees, the large number of employees working in corporations, and the heavy financial investment corporations are making with reference to tuition-aid, specific information is needed as to:

1) What motivates the employees to participate in tuition-aid programs?
2) What barriers do employees who participate in a tuition-aid program have to overcome?
3) What barriers exist for employees who do not participate in a tuition-aid program?
4) What would motivate employees who do not participate in a tuition-aid program now to participate in the future?

With this information, administrators in companies need to take a hard look at their professional belief in the development of the employee. A company policy should be established that will eliminate
some of the major barriers to participation by employees.

**SCOPE OF THE STUDY**

This study was conducted at one of the 23 operating companies that make up the Bell System. The population for this study consisted of all employees from the Chesapeake and Potomac Telephone Company who were eligible for the tuition-aid program. Chesapeake and Potomac Telephone Company was selected because the average percentage (4%) of its employees who participate in a tuition-aid program reflects the national average of employees who participate in tuition-aid programs.

The questionnaire used in this study for data collection was developed by using sections of a previously developed questionnaire called The Survey of Adult Learning used by the Commission on Non-Traditional Study and ten additional items from a report by Charner (Patterns, 1980). The rationale for this was that The Survey of Adult Learning questionnaire provided generic questions for an adult population, while the Charner report provided specific questions for an adult population in a corporate environment. The questionnaire used in this study sampled 400 nonparticipants and 230 participants. Data were analyzed and the major barriers were determined. The major barriers were matched with recommendations for the reduction of those barriers as found in the literature. A questionnaire was then sent to the chief decision-makers associated with the tuition-aid program in each of the 23 operating companies of the Bell System. The decision-makers ranked
each recommendation from "most" to "least" likely to be able to implement. The results and recommendations by the researcher were sent back to the decision-makers and to the appropriate administrators at higher education institutions.

This study was centered around the following research questions:

Research Question 1. What are the characteristics (motivations for participation and barriers that had to be overcome) of employees who do participate in a tuition-aid program?

Research Question 2. What are the characteristics (motivations for possible future participation and barriers to present participation) of employees who do not participate in a tuition-aid program?

Research Question 3. How do motivations and barriers of participants and nonparticipants of the tuition-aid program compare with one another?

Research Question 4. What policies and procedural recommendations, from the literature, match the barriers found in this study and what is the feasibility of implementation of these policies and procedural recommendations?
This researcher has found no other study that concentrated on employees of large corporations. Also, no other study concentrated on developing a set of recommendations to increase the participation for a specific population.

**Significance Of The Study**

This study identified procedures and policies designed to increase participation in tuition-aid programs for employees in a major corporation. The benefits of increased participation potentially affect employees, employers, and colleges and universities. The net result of increased participation for colleges should be a new source of students and increased revenue for the institutions; for employers, the goal is up-to-date employees with competitive and productive skills and more fully satisfied employees; and, for the employees, they may be able to find new routes to career advancement and mobility, for personal development, growth and satisfaction.

**Limitations of the Study**

Recommendations were developed based on previous research, a review of literature related to adult learners, and on demographic and other data of the population surveyed. No attempt was made to test the efficacy of the recommendations to actually determine whether proposed program modifications resulted in increased participation of employees in the tuition-aid program.
The population for this study included all management and non-management employees of one operating company which, together with 22 other operating companies, form part of the major telecommunication corporation known as The Bell System. The population at the operating company where the study was conducted was assumed to be similar to the population in other operating companies of The Bell System (Richardson, 1982).

Generalization is limited to this corporation. The researcher did not know how typical the employees of this corporation were to other large corporations that have tuition-aid programs. However, enough demographic data about these employees was captured to provide the reader with the means to determine if this population is similar to populations of other corporations. The degree to which this study generalizes to other corporations is dependent on the similarity of management, the similarity of program purpose, and the resemblance of the participant group.

Responses were received from 241 out of 400 (60 percent) of the nonparticipants who were surveyed and who had not participated in the tuition-aid program. Bradburn and Seymour (1979:6) in an article on acceptable rate of response cited 72 percent approximately as an average response rate for a large city survey sampling. Because the 60 percent response rate did not reach the 72 percent desired response rate, it is a possible limitation to the inferences of the study.
Definition of Terms

In order to provide a clarification of special terms used in this study, the following operational definitions are included:

**Situational Barriers** - Barriers to participation arising from one's situation in life at a given time. For example, a situational barrier would be the lack of time due to job and home responsibilities.

**Institutional Barriers** - Barriers to participation because of practices and procedures that exclude or discourage working adults from participating in educational activities, such as inconvenient schedules or locations.

**Social-Psychological Barriers** - Barriers to participation related to attitudes and self-perceptions about oneself as a learner, such as feeling too old to learn.

**Tuition-Aid Plan** - Formal arrangements through which a company offers financial assistance to its employees who take credit courses from accredited schools and colleges outside their normal working hours.

**Eligible Employee** - Employee, management or non-management, who has been with the company at least six months and is able to show, to the satisfaction of their supervisor, that the course to be taken is job-related.
Organization of the Study

Chapter I contains: an introduction to the study; background information on corporate employees; a review of the objectives of corporate tuition-aid programs; a review of identified barriers to and motivations for participation in tuition-aid programs; background of the origin of the survey instrument used; a statement on the purpose of the study; an explanation of the need for the study; a statement of the problem; a statement on the significance of the study; a summary of the limits of the study; and, a definition of special terms.

Chapter II contains a review of literature relevant to tuition-aid programs and is organized into five areas. The first area reviews the characteristics of adult learners. The second area provides background information about tuition-aid programs and what parties are involved in them. The third section contains information on the most frequently identified reasons why people are motivated to participate in tuition-aid programs. The fourth area contains a review of identified barriers to participation in a tuition-aid program. The fifth area contains a summary of the three most successful tuition-aid programs.

Chapter III presents a description of the survey instrument employed in this study and a discussion of The Survey of Adult Learning and the Charner report that provided the framework for the instrument used in this study. Research methodology and data analysis procedures are discussed.
Chapter IV presents a summary of the findings.

Chapter V presents a summary of the study, conclusions about recommendations the administrators of corporate tuition-aid programs identified as feasible to implement, and recommendations for future studies.
CHAPTER II

Review of Related Literature

Introduction

This chapter reviews the literature relevant to the investigation of tuition-aid programs. Five areas which are pertinent to the study of tuition-aid programs within corporations are examined:

(1) Characteristics of the adult learner. The adult learner group is the group that has the choice of participating in tuition-aid programs. The characteristics and needs of the adult group should impact on the content and administration of tuition-aid programs.

(2) What are tuition-aid programs and what are the major parties involved in them?

(3) Frequently identified reasons why people are motivated to participate in tuition-aid programs.

(4) Barriers to participation in a tuition-aid program.

(5) Summary of the three most successful tuition-aid programs.
Characteristics of the Adult Learner

According to Malcolm Knowles, there has been emerging a coherent, comprehensive body of theory and technology based on assumptions about adults as learners. One of the earliest works on identifying characteristics of the adult learner was done by Lindemen in 1920. He was a philosopher who did not conduct systematic studies, but developed a theory based upon his own experience and observations. Later, more empirical studies conducted by researchers in adult learning echoed many of Lindemen's findings. Malcolm Knowles' research on characteristics of adult learners deals with his theory of andragogy. It is premised on four critical assumptions about the characteristics of learners. As individuals mature:

1. Their self-concept moves from one of being a dependent personality toward being a self-directed human being;

2. They accumulate a growing reservoir of experience that becomes an increasingly rich resource for learning;

3. Their readiness to learn becomes oriented increasingly to the developmental tasks of their social and occupational roles;

4. Their time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly, their orientation toward learning shifts from one of subject-centeredness to one of problem-centeredness.
Knowles further developed and articulated this theory over the years subsequent to 1950 and is still refining it. His more recent theory professes that some pedagogical assumptions are realistic for adults in some situations and some andragogical assumptions are realistic for children in some situations. For example, if an adult were to undertake to learn a body of totally strange content, that adult would be a totally dependent learner. The adult would have very little previous experience to build on, a low degree of readiness to learn, and probably would not know what developmental task he or she would be preparing for. The assumptions of pedagogy would be realistic in this situation, and pedagogical strategies would be appropriate.

Knowles made one caveat to this proposition though. An ideological pedagog would want to keep the adult dependent on an instructor, whereas a true andragog would want to do everything possible to give the adult whatever foundational content he or she would need and then encourage them to take increasing initiative in the process of further inquiry (Knowles, 1979: 52-53).

Cyril O. Houle found, from scientifically designed research that focused on the internal processes of adult learning, that adults fall into three groups. The first group is the goal-oriented. These are learners who use education for accomplishing fairly clear-cut objectives. These individuals usually do not make any real start on
their continuing education until their middle twenties and often sometime much later. The second group is the activity-oriented. These are learners who take part because they find in the circumstances of the learning a meaning which has no necessary connection, and often no connection at all, with the content or the announced purpose of the activity. These individuals also begin their sustained participation in adult education at the point when their problems or their needs become sufficiently pressing. The third group is the learning-oriented. These are learners who seek knowledge for its own sake. Unlike the other types, most learning-oriented adults have been engrossed in learning as long as they can remember (Houle, 1961:15).

**Definition of a Tuition-Aid Plan**

A tuition-aid plan is a formal, company plan that provides financial assistance to employees who take credit courses from accredited schools and colleges outside their normal working hours (Watson and Grzybowski, 1975:76). Some plans cover only training directly related to a worker's current job; others expand eligibility to high school equivalency courses (GED), advanced degree programs, cultural courses, and even education for families (Rodgers and Shore, 1980:4).

Most tuition-aid plans establish criteria of eligibility for participation. Criteria may include: (a) minimum length of service, (b) job classification, or (c) seniority. Most plans also establish
criteria regarding payment of educational expenses. Satisfactory completion of course work, often expressed in terms of a course grade, is a common criterion. Evidence of satisfactory completion of a course of study is required to secure reimbursement from the employer or for waiver of the repayment provisions in most tuition-aid plans.

No two plans are structured and administered alike. But the tuition-aid plan, in whatever configuration it takes, represents a commitment to the idea that employee education is a positive experience for all parties involved (Rogers, et al., 1980:5).

**History of Tuition-Aid Plans**

A number of works attest to the long-standing interest of organized labor in education for its members, as demonstrated in separate works by Curoe, Barbash, Mire, Kerrison and Levine and reviewed by The Manpower Institute (Charner, et al., 1978:17).

This interest has been evident since the 1800s, whether as a desire for vocational training (American Federation of Labor, 1939), as a vehicle for social change (Dwyer, 1977), as a tool for the development of more effective unionists (Brameld, 1941; Lawrence, 1945), or as an aid in the development of the whole man (Kerrison and Levine, 1960) (Charner, et al., 1978:17).

Most company-sponsored plans originated after World War II, though
the first plans began in the early 1900's. The first plan was that of the First National City Bank in 1904. The main impetus for these plans was to build a ready supply of trained replacements for employees being drafted into military service. Another impetus for the development of tuition-aid plans was the growth of fringe benefits, a variety of social benefits which increasingly became part of collective bargaining agreements (Charner, et al., 1978:18). These benefits helped union members meet personal and family needs; they also aided management by serving as a cost-effective means of ensuring loyal, healthy, and satisfied workers. As educational and training requirements for jobs steadily increased (since World War II), a college education has come to be seen more as a basic need rather than a privilege; and thus, educational assistance programs are even more a part of employee benefit packages (Charner, et al., 1978:18).

Parties Involved in Tuition-Aid Programs

The National Manpower Institute study (Charner, et al., 1978:10-14) of tuition-aid recognizes the importance of five principal parties in the development, operation, and use of education and training programs funded through tuition-aid plans. These are: society, employers, unions, employees, and educational establishments. Each of these principals has certain reasons (motivations) for being interested in tuition-aid and has certain roles in the development and operation of the education and training programs.
Briefly stated, employers seek improved skills in their work forces and more satisfied employees; unions negotiate for tuition-aid to increase opportunities for their members; employees find new routes to career advancement or improved leisure skills; educational institutions find a new source of students and revenue; and society benefits from productive workers and effective citizens (Charner, 1980:100).

The data base for all of Charner's studies consisted of 910 unionized employees, 50 corporate officials and 51 union officials based on a national cross section of companies and unions. The sample represented workers who had access to tuition-aid programs. The purpose for each of Charner's studies was to determine differences or similarities between participants and nonparticipants of the tuition-aid programs (Charner, 1982).

Benefit to Society

Society is interested in enhancing productivity and economic growth, reducing structural unemployment by retraining workers with obsolete skills or by giving disadvantaged workers entree into jobs. Society's role in this process is to help provide resources through tax deductions to employers, create a receptive climate for education and training, and arbitrate disputes among the four other principals when such disputes are elevated to the political level.
Benefit to Employers

Employers are motivated to provide education and training programs to improve worker productivity, meet skill requirements, upgrade skills for promotion, prepare employees for technological change that industries will undergo in the near future, retrain where new production methods are introduced, adapt managerial personnel to new products or new climates affecting business, such as affirmative action for equal employment opportunity, and to improve company relationships with workers. Peter Drucker supported tuition-aid plans by stating that left alone and without a plan for development and without top management's support and encouragement, a firm's human resources can stagnate and become obsolete (Watson and Grzybowski, 1975:73).

Several other reasons employers have for promoting tuition-aid plans may be identified. One is the desire to assure occupational vitality-morale, in the sense of commitment to work, particularly among professionals and managers. There is the desire to stabilize employment, reduce turnover, and fill needs for the shortage of skills from within. Another purpose is to make the firm attractive to workers who may be willing to trade lower pay for a learning opportunity. Lastly, education provided by employers can serve the critical role of providing remedial opportunities if the general education of an employee is deficient and is deemed necessary for specific vocational preparation (Goldstein, 1980:6-9).
Employers concur that updated knowledge and skills, improved worker performance, and personal development and growth are the objectives of a tuition-aid plan. They also concur that the three major outcomes of a tuition-aid plan are: greater worker effectiveness on the job, heightened career development and job mobility, and increased worker satisfaction (Smith, 1980:28).

The employer's role in education and training is seen as expanding mandatory and optional training and education programs. In a study conducted by Thompson, close to 100 percent of the employers interviewed concluded that their tuition-aid plans were beneficial. Some employers had strong convictions about the benefits received; some assumed that the benefits which they experienced were a result of the educational program. Not one employer out of the 166 employers polled said they believed their plan was of no benefit (Thompson, 1956:5). Spiraling energy costs in a slow growth economy, where capital needed for expansion becomes increasingly difficult to obtain, make it imperative to keep a lid on fringe benefits. But the fringe benefit of tuition-aid can be seen by many employers as a necessary fringe benefit (Geisel, 1977:31).

The Conference Board research report of the tuition-aid plans of 171 companies rated the major objectives of their plans in order of relative importance. The top five objectives of tuition-aid programs in order of importance were: to make all employees more productive; to enable employees to get ahead in the company; to enrich employees'
lives; to create a reserve of promotable employees; to attract promising new employees (O'Meara, 1970:17).

Company officials familiar with tuition-aid plans frequently emphasize the comparative advantages of tuition-aid programs over other forms of company provided education and training. Among these are the fact that employees usually participate in education and training on their own time and thus, production schedules are not affected. No employee salary or wage expenses are incurred as is normal with internally provided programs. Further, overhead expenses are not incurred in the form of training, staff salaries, office space, and equipment (Shore, 1979:6).

Benefit to Unions

Unions are motivated to support education and training programs to increase worker's personal satisfaction, career advancement, and job security. Their role in education and training is to represent worker's interests in expanding training education opportunities through collective bargaining and to facilitate negotiation of opportunities by workers themselves in some circumstances.

Benefit to Employees

Employees participate in education and training programs for four broad categorical reasons: job or career related; personal development or general information; social or recreational; and political or
community. Job and career related reasons (53.3 percent) followed by personal/general information (41.4 percent) are given by the largest percentage of adults who participate in education. Social/recreational and community/political are given as reasons by considerably fewer participants, 7.8 percent and 2.6 percent respectively (Charner, 1979:37).

Within the job or career related category, mobility (horizontal, vertical, and within job) is an important reason for participating. Learning new skills to meet the changing technology is also a primary objective within this category. Some differences between groups of workers are evident. As level of education increases, the percentage participating for career or job reasons increases while the percentage participating for personal or general information decreases. Blacks participate to get new jobs more often than whites. Men have higher percentages than women for job or career related reasons while women have higher percentages for general information reasons (Charner, 1979:37).

Benefit to Educational Institutions

If the current national effort to promote worklife learning succeeds, it could bring about one of the most significant developments in post-secondary education in the last quarter of this century. Such development would be as important for colleges and the educators within the colleges in the coming years as were land grants in the last century
and community colleges in the last decade (Wirtz, 1979:31). Educational institutions who cooperate with industries that have tuition-aid plans will find a new source of students, revenues, and a new challenge in developing curricula to meet the needs of their new clientele (Charner, 1980:1).

Through this review of literature, it has been supported that all parties (society, employers, unions, employees, and educational establishments) involved in tuition-aid programs benefit from such programs. The purpose of this researcher's study is to identify barriers to participation and carry out an investigation that will lead to recommendations for increasing participation.

Roles of Employees and Educators in the Education and Training Process

The employee's role in the education and training process is to avail themselves of appropriate opportunities and to inform unions and employers of their desires concerning the structure, content, and benefits of education and training opportunities (Charner, et al., 1978:11).

The educator's role is to establish education and training programs through their institutional role as agents that provide the education and training opportunities in response to society, employers, employees, and unions. Educators seek to increase the enrollment of students, extend services to adult populations, and broaden the educational curriculum. Their role in providing such opportunities is to inform
workers of available opportunities, deliver such opportunities to workers, and modify the curriculum based on worker needs and desires. An additional role of educators is to raise expectations of employees, employers, and unions regarding the relationship of training and education to work (Charner, et al., 1978:12).

Influence on Level of Utilization of Tuition-Aid Plans

Both society and employers help establish the level of utilization of tuition-aid plans by the importance they attach to employee training and education; the financial incentives provided to employees such as release time, stipends, and sabbaticals; and the nature of the information available to employees about the structure and content of tuition-aid plans. Unions affect levels of utilization by their willingness to bargain for tuition-aid plans and by the relative importance they place on tuition-aid in relation to other negotiated fringe benefits. Employees affect the participation level by their desire for additional education and training and by their feelings of inadequacy and anxieties about further schooling. Educators affect the participation level by providing the desired curriculum to workers and by being responsive to the needs of adult learners (Charner, et al., 1978:13).
Current Scope of Tuition-Aid in Industry

Surveys have been conducted that offer some idea of the prevalence of educational plans in industry, the degree of their utilization, and the nature of their provisions. According to Lusterman (1977:22), almost 90 percent of 300 companies polled who had more than 500 employees had tuition-aid programs. In 1957, only 63 percent of companies had such programs. This means that between 17 million and 25 million American workers are eligible to participate in tuition-aid programs. Large companies were more likely to have tuition-aid plans than smaller ones and plans were most prevalent in financial institutions, utility companies, and transportation and communications firms (Lusterman, 1977:22). About four-fifths of industry expenditures on education, however, go toward in-house training activities rather than for external educational activities (Lusterman, 1977:22; Charner, et al., 1978:19).

A report of the Conference Board indicated that between 2 billion and 100 billion dollars per year is spent by 75 hundred of the nation's largest companies on career-related education for their employees. These figures differ so drastically because the first includes only direct expenditures while the second includes lost time, staff time and other cost factors (Lusterman, 1977:12).
Common Plan Provisions

The O'Meara study of 1970 documented common plan provisions. The majority of plans surveyed were open to active, full-time employees; confined study to nonwork hours; and covered about 80 percent of tuition costs. Another survey found that more than three-fourths of the plans required courses to be job-related (Charner, et al., 1978:19).

Lack of Utilization of Tuition-Aid Plans

Tuition-aid in the private sector has been the subject of few systematic studies (O'Meara, 1970; International Union of Electrical, Radio, and Machine Workers, 1972; Levine and Cohen-Rosenthal, 1977; Lusterman, 1977; Fried, 1978; Haynes and Holly, 1978). While each of these studies has added to the growing knowledge base about tuition-aid, there is still a great deal to be learned about tuition-aid and its use. It is known that various forms of tuition-aid exist in a large number of companies, and it is also known that utilization rates of these plans are very low. What these studies suggest is that tuition-aid in the private sector is a virtually untapped resource for financing the educational pursuits of workers.

Studies of the rate of worker participation in tuition-aid programs have placed average rates at between four percent (O'Meara, 1970) and ten percent (Bureau of National Affairs, 1972) for white collar workers. The participation rate among blue and pink collar workers is even lower, an estimated one to two percent of those eligible. (Charner, et al.,
Motivations for Participation in Tuition-Aid Plans by Employees

A national study was conducted in 1972 by the Educational Testing Service for the Commission on Non-Traditional Study (CNS). The report was summarized in articles by Carp, Peterson, and Roelfs (1974) and published in a book by Cross (1981:89). The questionnaire used in the Commission on Non-Traditional Study was called The Survey of Adult Learning. The motivational factors used in The Survey of Adult Learning are basically the same motivational factors contained in thirty large-scale surveys of adult learners (Cross, 1979:131). There is, therefore, high probability that the motivational factors used in The Survey of Adult Learning are basically all-inclusive of the major motivational factors that are relevant to adult learners who participate in a tuition-aid program. The majority of the questionnaire developed for this researcher's study is based on The Survey of Adult Learning and will be given fuller treatment in Chapter 3.

The motivational factors used in The Survey of Adult Learning were grouped into clusters for reporting purposes. The 20 motivational factors were grouped into nine clusters: The Desire to Know; The Desire to Reach a Personal Goal; The Desire to Reach a Social Goal; The Desire to Reach a Religious Goal; The Desire to Take Part in Social Activity; The Desire to Escape; The Desire to Comply with Formal Requirements; The Desire for Personal Fulfillment; and, The Desire for Social and Cultural
Cluster 1, The Desire to Know, was the most frequently cited cluster; 56 percent indicated "become better informed, personal enjoyment and enrichment," and 35 percent noted "curiosity, learn for the sake of learning." Next in frequency was the cluster Desire for Personal Fulfillment, which included "become a happier person," (37 percent) and "be a better parent, husband, or wife" (30 percent). The third cluster -- Desire to Reach a Personal Goal, has economic overtones (in contrast to the first two); 27 percent indicated "work toward a certificate or license;" 25 percent, "help get a new job;" 21 percent, "work toward a degree;" and 17 percent, "help to advance in my present job." The other clusters were less frequently endorsed. Only two other specific reasons -- "become a more effective citizen" (26 percent) and "meet the requirements of my employer, profession, or someone in authority" (24 percent) -- were endorsed by more than 20 percent of the respondents.

For Would-Be Learners, then, the primary reasons for learning centered around Desire to Know, Desire for Personal Fulfillment, and Desire to Reach a Personal Goal (Carp, 1974:53).

For Learners, as for Would Be Learners, the most important reasons centered around Desire for Knowledge ("become better informed" cited by 55 percent, and "curiosity" by 32 percent), with Personal Fulfillment -- "meet requirements of someone in authority" (27 percent) and "job
advancement" (25 percent) -- next in importance (Carp, 1974:82).

Judging from their self-reports, the chief reasons Americans engage in adult learning are intrinsic -- Desire to know about a subject area and Personal Fulfillment (Carp, 1974:103).

Cross (1981:92) summarized the findings of the CNS survey and several other studies and identified the five most common motivational factors for participating in a tuition-aid program. She found that half or more of the potential learners mentioned personal satisfaction as one of their reasons for learning. Learning activities most likely to be pursued for personal satisfaction are often considered luxury items, and it is frequently adults who have no particular desire for economic or career advancement, i.e., unemployed women, older and retired persons, and the privileged classes, who cite personal satisfaction as a major motive.

The percentage of potential learners seeking knowledge for its own sake as their primary motivation varies from study to study, from a low of 10 percent to a high of 39 percent. Percentages are much higher (around 50 percent), but variation is also considerable for those citing the possession of knowledge as one among other reasons for learning. The average adult learner apparently does not regard traditional liberal arts courses as the foundation subjects that will satisfy his or her need for new knowledge. Only small minorities of adults express a strong interest in traditional, discipline-based subjects, and these
learners, predictably, are those with high levels of educational attainment (Cross, 1981:92).

To work to obtain a degree or certificate is given as a reason (but not usually the main reason) by 8 to 28 percent of potential learners. The pursuit of degrees is strongly associated with level of educational attainment and with desire for job advancement. Younger persons and those with one to three years of college are most likely to be degree oriented, and the desire for credit or certification declines steadily with increasing age. While the number of adults wanting formal academic credentials (degree or diploma) is ordinarily quite small, most studies show that about two-thirds of adult learners want some kind of recognition (skill certificate, certificate or course completion, or degree) for their learning (Cross, 1981:92).

A surprising number of adults (over one-third) are found to admit that escape is, for them, one reason for pursuing education. It is rarely, however, offered as the primary motivation. Nevertheless, there are certain groups of people for whom education serves as an escape and an opportunity to meet new people. Such learners are likely to be interested in hobbies and recreational subjects, while they are likely to be people lacking in other social outlets, i.e. the elderly, women confined to home and family, people geographically isolated on a farm or ranch. For example, in the Iowa statewide study, 90 percent of those interested in crafts (mostly older people, 70 percent of the females from middle- and lower-income levels, and 40 percent of the farm
residents) said that meeting new people and getting away from daily routines were reasons for their learning interests. Unfortunately, many of those most eager for social contact may live in isolated regions of the country and lack the mobility to participate in group learning activities. Whether home-delivered education to socially isolated learners can be designed in a way that is satisfying to them remains to be seen (Cross, 1981:93).

The desire to learn to be a better citizen is not a strong reason for learning, although about one-fourth of the potential adult learners cited it as one of the prime factors. Adult educators, having had some experience with the market fluctuations for extension and noncredit courses have observed, however, that there are apparent societal motivations which create demands for courses on energy or ecology (Cross, 1981:93).

Barriers to Participation in Tuition-Aid Plans

Numerous studies suggest that every large employer in the country has available the wherewithal, via direct policy action, to enhance employer participation in voluntary education and training programs by a factor of five to ten times. There is nothing congenital in the workforce to prevent it. There is also an increasing number of adults reporting that they want to participate in education (Smith, 1980:33).

The section of The Survey of Adult Learning dealing with barriers to participation in an educational program showed that Would-Be-Learners
most frequently mentioned the following barriers: "cost" (53 percent), "not enough time" (46 percent), "home responsibilities" (32 percent), "job responsibilities" (28 percent), and "amount of time required to complete program" (21 percent) (Carp, 1974:91).

Aside from the cost, the important barriers seemed to relate to the time factor. "Not enough time," "job responsibilities," and "home responsibilities" all seemed to be ways for the respondent to indicate that his/her present life situation did not leave enough free time for learning activities.

Cross and Zusman (1979) synthesized findings from thirty state and national surveys addressing nonparticipation. They classified barriers under three headings: situational, social-psychological and institutional. The national survey conducted for the Commission on Non-Traditional Study contained questions relating to each of the three headings. Again, the barrier factors used in The Survey of Adult Learning were basically the same barrier factors contained in the other 30 large-scale surveys of adult learners. There is, therefore, high probability that the barriers used in The Survey of Adult Learning were basically all-inclusive of the major barriers to participation in tuition-aid programs.

Situational factors are those which arise out of one's position in a family, the workplace, social group, etc., at a given time. Among the situational factors found to be related to adult participation in
education were costs (Carp, et al., 1976), lack of time (Cross, 1978), occupational status (Boaz, 1978; Cross, 1978), and income (Boaz, 1978; Cross, 1978). For participation in tuition-aid programs, age and education were the major situational barriers, with costs and lack of time reported as secondary problems (Charner, Patterns of Adult Participation in Learning Activities, 1980:45).

Charner (1980:18) made some observations from his study on tuition-aid plans which related to levels of education and age. Details of his study showed that 37.6 percent of all workers had 12 years of education with a high school diploma or less. When he compared participants in education to nonparticipants, however, he saw that 57.6 percent of nonparticipants had 12 years of schooling or less compared to only 18.4 percent of participants. This difference of almost 40 percent suggests that there is a strong relationship between prior education and a worker's decision to utilize tuition-aid benefits. It seems the notion that education is addictive is true for adult learners. That is, those with more education seemed to be the ones who participated at higher rates.

The distribution of workers by age showed that overall, 47 percent of workers were 34 years old or younger. For participants in education, the corresponding percentage was 60.2, while for nonparticipants it was 33.3 percent. This difference of almost 27 percent suggests that age, much like prior education, has a strong relationship to the utilization of tuition-aid benefits, favoring the younger worker. Older workers who
have been out of school for many years participate at lower rates than younger workers. Age 34 appears to be the sharpest demarcation for adult participation in education (Charner, 1980:8).

Rogers and Shore (1980:12-14) found one of the major barriers to many adults returning to school is cost. Even when covered by a tuition-aid plan, many workers were unable to advance the money for school and wait for reimbursement. Also, a large number of educational plans only covered partial costs. Add to that the common requirement that employees show proof of satisfactory course completion (meaning either passing or a particular grade level) before getting the refund, and one has all too often a situation of prohibitive financial and or psychological impediments.

Carp, Peterson and Roelfs reported in the Commission on Non-Traditional Study that women are reportedly more affected by cost constraints than men, while lack of time is reported as a problem for men more than women. Costs are also more problematic for younger adults (under 35) than for older adults, while lack of time is a problem for the middle age group.

They also reported that with regard to racial differences, whites were more inclined to mention lack of time as a barrier than were blacks. Blacks, on the other hand, reported costs to be a barrier more often than whites. Finally, differences in the importance of these two factors were also related to educational level. Cost factors were
reported as barriers more often by those with less education, while time
t factors were more problematic for those with higher levels of
educational attainment. Other situational factors that have been found
to act as barriers to participation in tuition-aid programs for adults
include: home responsibilities, job responsibilities, and number of
dependents.

Psychological factors are those related to the attitudes and self-
perceptions one has or to the influence of significant others (family,
friends, etc.) on the actions of the individual. These factors are
reported as barriers by a relatively small proportion of adults.
Charner (1980:49), found only 12 percent of the sample reporting lack of
confidence and 17 percent who felt they were too old to begin.

Women more frequently than men reported that they felt they were
too old to begin. Men, on the other hand, cited lack of confidence in
ability more than women. These were the only two factors where there
are reported differences for men and women. Variation by age was found
for lack of confidence in ability and feeling too old to begin, with
younger workers more often reporting a lack of confidence and, not
surprisingly, older workers more often feeling too old to begin.
Botsman (1975), in his study of blue-collar workers, reported 21 percent
feeling too old to begin and 18 percent with a lack of confidence in
ability. Many adults are embarrassed or fearful of reentering the
classroom, hesitant because of negative associations with early
classroom experiences (Charner, 1980:50).
Other factors that were mentioned as barriers in Charner's study which fall into this category include: don't enjoy studying, tired of school, lack of interest, friends or family don't like the idea, and hesitate to seem too ambitious. Each of these other factors were reported as a reason by less than 10 percent of adult workers. Compared to the situational factors, these psychological factors were not perceived as significant barriers to participation in tuition-aid programs by a large group of employees (Charner, 1980:49).

Racial differences were found only for lack of confidence in ability, with many more blacks than whites mentioning this as a barrier. Differences related to educational level show those with less education citing lack of confidence in ability more often than those with more education. Unlike the situational factors, there were only a few differences between groups of workers on the psychological barriers, and these differences were often small (Charner, 1980:50).

Institutional factors are policies and practices of organizations that overtly or subtly exclude or discourage adult workers from participating in learning programs. Institutional factors fall between the other two categories of factors in the proportion of adults reporting such factors as deterring their participation. The array of institutional factors can be grouped into five problem areas: scheduling, location, transportation, lack of courses, application and approval procedures, and information. Of these, location, scheduling, and lack of interesting or relevant courses are most often mentioned as
barriers to learning. Cross (1978), in a review of studies of the needs and attitudes of adult learners, found that generally one-fourth of all survey respondents reported these as barriers to their participation (Charner, 1980:51).

Charner studied adults in the corporate environment who were eligible for corporate tuition-aid plans. He found additional institutional barriers for that population such as "inflexibility in the work schedule," "too much red tape in tuition-aid plan," etc. (Charner, 1980:46)

Charner's study of 1980 found that lack of information was an important determinant for all workers, except older workers with low levels of educational attainment. Inadequate counseling seemed to be important only for workers with a higher level of education regardless of age. It was clear that for younger and older workers with higher and lower levels of prior educational attainment, lack of information was a considerably more powerful determinant of nonparticipation in a tuition-aid program than inadequate counseling.

Charner's study of 1978 found that, for the most part, companies and unions do very little to publicize their tuition-aid plans. Seventy-seven percent of the companies used bulletin board notices and articles or notices in company papers once a year. Unions relied mostly on articles and notices (61.5 percent once a year). Other forms of publicity, including employee handbooks, hand-outs, and meetings were
never used by most of the companies and unions (Charner, et al., 1978:45).

Most workers believe that further education and training are important for everything from improved job performance, being a better citizen, being a well-rounded person, to preparation for retirement. Sixty-eight percent of all workers stated they would be likely or certain to utilize the benefits if barriers disappeared (Charner et al., 1978:55).
Characteristics of Each of the Three Most Successful Tuition-Aid Programs

In 1978-1979, the National Institute for Work and Learning examined three programs that boasted relatively high ratings on tuition-aid utilization. Their purpose was to attempt to identify factors in the program structure and administration, in the workforce, and in the contextual environment (industry, community, education, etc.) that seem to account for above average participation rates. Smith (1980:23) wrote a synopsis of each of the three programs examined in these case studies. The three studies are about: The Kimberly-Clark Corporation; The District Council 37 of the American Federation of State, County and Municipal Employees in New York City; and The Polaroid Corporation.

The Kimberly-Clark Corporation's Educational Opportunities Plan (EOP), which originated in 1974, is regarded as the leader in innovative company-sponsored tuition-assistance plans. The introduction of this progressive plan, which has a participation rate of over 35 percent, was a dramatic departure from the previously limited and restrictive tuition-aid program at Kimberly-Clark which claimed a participation rate of only 1 percent.

Kimberly-Clark, headquartered in Neenah, Wisconsin, is a fast-growing, world-wide marketer of fiber-based personal care products. The EOP, which provides benefits to workers and their families for courses which do not have to be job-related, is open to nearly half of the
almost 16,000 employees. Many of the eligible employees are concentrated around Neenah, an area rich in education institutions. The majority of eligible employees are white collar. The participation rates of hourly workers under the plan are lower than the overall 35 percent rate. The EOP was introduced by the top corporate leadership as a way to recruit, develop, and maintain a highly qualified and satisfied workforce and to evidence Kimberly-Clark's commitment and trust in its employees.

The EOP includes the following major components:

- **Kim Ed Account**—a personal "bank account," determined by formula, allotted to each employee for his/her educational use. After submitting a "self-development plan," the employee may draw on this account throughout the year. (The typical Kim Ed Allotment in 1978 was approximately $450.) Kim-Ed includes a provision for up to 10 days of educational leave per year.

- **Fam Ed Account**—financial assistance provided to employees and their families, based on a formula allotment, for current or future educational expenses. The company makes annual deposits to the account, and there are financial incentives for employees to save for the future.

- **Extended Educational Leave**—a limited number of paid leaves for up to one year. Reportedly this component of the EOP is rarely utilized.
While notable for the care and detail with which it has been designed, the EOP is unusually flexible, with deliberate attempt being made to include institutional features which would maximize employee use of the plan. The most striking among these include:

- **Liberal eligibility.** The EOP is not limited to professional or salaried employees. There is a six-month seniority requirement.

- **Coverage of non-job-related and cultural activities.** Approval for courses is not a requirement.

- **Advanced payment.** Tuition and other educational expenses prepaid by the company.

- **Grade requirement or proof of course completion.** No requirement.

- **Unit coordinators.** A network of high-level administration for providing coordination of crucial support services, including information on the plan and local educational opportunities.

- **Extensive plan promotion and publicity.** Employee orientation, special announcements, bulletins, supervisors, and word-of-mouth.

- **Strong support of the EOP by top management.** Establishes an atmosphere at Kimberly-Clark conducive to employee participation.

- **Cooperation of local institutions.** Options in course locations, scheduling, and content have certainly contributed to increased
participation of adult workers in educational activities under the EOP.

- Employees are accustomed to socializing with other employees. Kimberly-Clark sponsored social events outside the office.

Many of the plan's features directly reduce or eliminate the institutional barriers which commonly inhibit workers from using educational assistance. Primarily, the barrier factors of cost and time have been dealt with. The company prepays all tuition costs and has established time saving options such as working with local institutions to introduce flexible scheduling, creating options in course location, etc.

Can the EOP be replicated in other settings? An important question is whether the EOP works only as a complete package or whether various pieces might be separated out and used in other corporate settings. Kimberly-Clark plan managers suggested two possible barriers to the adoption of similar plans by other companies. First of all, the EOP may be too comprehensive and innovative. Its administrative structures and management systems are costly and extensive. The Chairman of the EOP Committee feels that once other firms realize the complexity of the EOP, they would be frightened away from attempting similar programs. Secondly, it would be extremely difficult for a plan of such magnitude to be introduced into a company from any direction other than from the top down. However, most of the requests for information on the EOP have
been from mid-level managers in the personnel or education and training departments of other firms. In the opinions of EOP administrators, it would take a strong commitment on the part of top management in order to establish any education plan with a level of complexity similar to the EOP's.

According to a member of the initial EOP design team, there is no way to show the bottom-line relationship between participation rates and contributions of participants to the company, and it is difficult to communicate the plan's positive effect on Kimberly-Clark workers to other companies. In order for other corporations to catch on and adopt any or all of the provisions of the plan, it's his guess that the personal testimony of top executives of Kimberly-Clark might carry more weight than anything else.

District Council 37 of The American Federation of State, County and Municipal Employees in New York City offers an unusual array of educational programs and services to a large and diverse group of municipal employees. DC 37's Education Fund (EF) stands out because it is overseen by a board of union members, and operates out of the union's headquarters. Fund programs are not only highly subscribed (the overall participation rate is about 10-12 percent and many programs have waiting lists); they have managed to attract most heavily those groups normally viewed as least likely to take advantage of educational opportunities such as lower skill and lower paid employees.
With over 110,000 members, DC 37 is the largest council of AFSCME. Known as a progressive, service-oriented union, it offers a wide range of benefits for its members, including a health plan, legal services program, retirees' association, and political action program. Through an agreement negotiated in 1971, the City of New York provides $25 annually for each of over 76,000 eligible employees to be used to meet a general set of educational objectives. The total annual fund budget is nearly $2 million.

The Education Fund evolved out of the union leadership's attempts in the 1960's to meet the perceived needs of workers for education and training which would lead to job upgrading and promotional opportunities within the city's civil service system. Because of the enthusiastic response of the membership, the initial emphasis on career development has continued and is evident in the focus of Fund Programs today.

Key provisions and features of Education Fund Programs attempt to reduce barriers to participation in education faced by working adults who are returning to school after a long absence. These features and provisions include:

- **Flexible, simplified admissions procedures.** A minimum of the bureaucracy and red tape which students reported encountering at other schools.

- **Incentives for workers to participate.** Most Fund programs offer some tangible "reward," such as credits, a certificate, or a letter
to employers. These rewards offer the possibility of an economic or other work-related payoff.

- **Workers have input into the development of programs.** Workers are encouraged to voice their complaints, and they know that it is their program, which they are entitled to use and to shape.

- **Scheduling arrangements.** Many students attend classes on their way home from work. Most classes are held in the evenings or Saturdays at union headquarters, and alternative arrangements often exist to accommodate work shifts. Students gain support from attending classes with their co-workers in the union setting.

- **A diversified, non-restrictive curriculum.** Programs are designed to meet a variety of learning needs and styles, and degree programs are not required to be job-related.

- **Little or no out-of-pocket expenses.** Existence of a fund which is to be spent only on education programs, unlike some arrangements in which education is seen as a cost item for the sponsoring organization. Students pay for books and materials and the Fund prepays the tuition expenses.

- **An accessible network of support services.** Widely available group and individual educational counseling, a learning lab for tutoring and individual instruction in basic skills, a library, and a staff
of faculty and administrators who reportedly often act as advisors to students.

- **Child care service.** The Education Fund provides Saturday activities for children whose parents are attending classes.

- **Management's encouragement.** The program is endorsed by top-level leadership. The program does not have to justify its existence and objectives. From the start, it has inherent credibility and legitimacy. Not only does that reduce potential threats to the program's status and survival, and appears to speed up the process by which the workers come to accept and believe in its value and thus consider utilizing it.

- **Widespread publicity.** Highly popular union newspaper, word-of-mouth, notices, etc. Especially because of the former, there is a high level of awareness of the existence of Fund programs.

- **Included in employee's personnel files.** Record of their completion of courses.

The elements of success of the Education Fund consist of replicable program features. They include: little out-of-pocket expense; flexible scheduling of classes; small classes with co-workers when conducted on-site; accessible advisors; simplified admissions procedures; support services; well-publicized programs; and a diverse range of educational offerings. Again, the barriers of cost and time are dealt with heavily
in this plan. The Educational Fund prepays all tuition costs and the administrators arrange for flexible scheduling of classes, child care, etc.

The Polaroid Corporation demonstrates the importance of high-level management's commitment to their innovative and successful Tuition Assistance Plan. The Polaroid education program today is noted not only for its liberal Tuition Assistance Plan (TAP), but for an extensive and highly utilized internal education and training system. Fully 50% of the corporation's approximately 12,000 domestic employees participated in one or more internal or external educational opportunities in 1977-78. This figure stands out for two reasons, in addition to the unusually high 50 percent figure. First, as is the case of DC37, TAP manages to attract significant proportions of users from the ranks of those considered least likely to utilize education and second, TAP sustains a high level of participation despite the existence of a comprehensive internal education program. A look at the key features of the program reveals provisions which do much to overcome major barriers to participation. Of crucial importance is the fact that TAP prepays 100 percent of the costs of approved educational programs. The money must be refunded if the employee fails the course or does not complete it. The plan formerly paid only partial tuition costs. Through an equity provision, hourly and salaried employees are entitled to the same tuition assistance benefits. The plan with an annual budget of approximately $450,000, is open to all half- and full-time employees on
a prorated assistance basis. Acceptable courses and programs are those defined, very broadly, as job-related. In this case, the term encompasses not only those programs related to the employee's current or future job at Polaroid but also basic skills courses and covers degree programs.

The Polaroid System includes guarantees of promotion to skilled craft occupations or supervisory positions upon the completion of certain prescribed combinations of external courses and on-the-job training. Yet the principal emphasis is on the more general advantages received from employees both by increasing their skills and broadening their education.

TAP is widely publicized in a variety of ways (brochures, handbooks, media, supervisors, word-of-mouth, etc.) and the application process is easy and convenient. Furthermore, not only is educational counseling made available to employees at their worksite, but it is required before financial assistance is granted in order to ensure that the best educational match is made between student and course, to meet the objectives of both Polaroid and the employee.

What emerges is a combination of institutional features: counseling, publicity, full prepayment, simplified and liberal requirements and procedures all tailoring the plan to the needs of working adults. Furthermore, Polaroid, from its highest leadership levels through the rest of its staff, has exhibited a clear and
continuing commitment to the education and human development of all its employees. The general corporate climate at Polaroid appears to be highly conducive to awareness of and participation in educational activity. Polaroid impresses an outside observer as a lively, complex and vital organization. Morale seems high, and the employees seem committed to their work, confident of their skills and hopeful of continuing growth and development. Many employees appear to identify strongly with Dr. Land, the maverick inventor-genius who founded the corporation and who exercises considerable influence as Chairman of the Board and Director of Research. Land's commitment to the importance of lifelong learning for individual growth and corporate vitality still shapes Polaroid's policy. According to the Education Department staff, Land's ideas continue to influence many aspects of the human resource development program at Polaroid.

Common Denominators of the Three Programs

There are many common denominators throughout the three programs. They cannot be ignored. If one-half or one-quarter of those who do America's work were also engaged in some form of formal education, it would amount to a minor but significant economic and social revolution, and the fairest reading of the Kimberly-Clark, Polaroid, and District Council 37 records show that everything in all three of them suggests strongly that what has happened there could happen almost everywhere else.
The worker education idea depends on full and continuing commitment for its effectiveness in an office that carries authority, influence, and adequate financing. Perhaps an even more critical corollary is that this commitment becomes meaningful only as it is carried to the point of establishing a position of liaison administrator who establishes linkage programs between the company and educational institutions. This liaison must have a sufficient staff to design and administer a program that requires a good deal of on-going effort.

Critical to the success of the programs in the three companies was the change from paying only part of the tuition costs to paying the full costs. This stimulated the use of the programs substantially; and similarly of the decisions eventually made to advance employees the total funds required for course enrollment. Costs, other than tuition, are also covered in all three programs.

One of the commonest reservations employers have about these programs involves concerns about the idea (and the cost effectiveness) of spending money to up-grade employees' competencies only to have them use the advantage of this to get a job someplace else. This often leads to companies limiting their tuition assistance offer to external courses involving training closely related to an applicant's current job or to one in the immediate job family.

No such concern, whatsoever, is reflected in the Kimberly-Clark, DC37 programs, or at Polaroid. In all three situations, deliberate and
strong emphasis is placed on employees' stakes in the programs. The essential dynamic of the DC37 program is probably the employees' feeling that this is "their" program; most of the courses provided are those the prospective students have said they want to take. At Kimberly-Clark, a deliberate point is made of not relating the educational program to absenteeism or turnover rates; and yet company representatives express the clear conviction that it results in attracting superior job applicants and that rising corporate earnings are positive consequences, in part, of increased productivity. The obvious underlying and freely articulated assumption at Polaroid is that the program is cost-effective and income-producing in the toughest-minded terms. In all three cases, however, the considerable public rhetoric regarding these programs is characterized by plainly sincere emphasis on the value to individuals, corporations, and community alike of employees having an opportunity to continue to develop their capacities and personalities as human beings.

Positive administrative action is essential to break the centuries-old tradition that after you become employed you don't go back to school. Constant publicizing of the new opportunities have been made available. Extensive use has been made of announcements on bulletin boards and in various publications, and at Kimberly-Clark and Polaroid through supervisors' suggestions and encouragement.

Emphasis has been placed at the administrative level of all three plans on simplifying the enrollment and admission procedures. The employee "counseling and guidance" or "educational advisement"
procedures that are established emerge from all three of these experiences as being of great importance and as having a variety of potential implications. The basic purposes of these procedures are to help interested applicants handle what might otherwise be discouraging enrollment technicalities, and to facilitate the applicants identifying those specific courses that will most closely fit their needs and whatever broader considerations are involved.

It is an interesting but fairly futile exercise to try to trace the apparent influence in these three programs of including some form of recognition or even reward by the employer of employee performance in the outside courses. Education Fund administrators at District Council 37 deem it important that city personnel officials have agreed to include in employees' personnel files a record of their completion of college programs. At Kimberly-Clark, on the other hand, the feeling is that advantage is gained by not following up to determine what "grades" are earned or even whether the courses were completed. The Polaroid system includes guarantees of promotion to skilled craft occupations or supervisory positions upon the completion of certain prescribed combinations of external courses and on-the-job training; yet, the principal emphasis there is on the more general advantages that come from employees both increasing their skills and broadening their education.
Summary

This chapter reviewed literature relevant to tuition-aid programs. Five areas were reviewed which are pertinent to the study of tuition-aid programs within corporations:

(1) Characteristics of adult learners.

(2) What are tuition-aid programs and what are the major parties involved in them?

(3) Frequently identified reasons why people are motivated to participate in tuition-aid programs.

(4) Barriers to participation in tuition-aid programs.

(5) Summary of the three most successful tuition-aid programs.

Research on characteristics of adult learners is built upon the foundation formed by Lindemen, Knowles, and Houle. Knowles' theory is key and is premised on four critical assumptions about the characteristics of adult learners. As individuals mature:

(1) Their self-concept moves from one of being a dependent personality toward being a self-directed human being;

(2) They accumulate a growing reservoir of experiences that becomes an increasingly rich resource for learning;

(3) Their readiness to learn becomes oriented increasingly to the
developmental tasks of their social and occupational roles;

(4) Their time perspective changes from one of postponed application of knowledge to immediacy of application, and accordingly, their orientation toward learning shifts from one of subject-centeredness to one of problem-centeredness (Knowles, 1950:44-45).

The definition of a tuition-aid plan is a formal, company plan that provides financial assistance to employees who take credit courses from accredited schools and colleges outside their normal working hours. The major parties involved are: employers, unions, employees, educational institutions, and society. Employers seek improved skills and more satisfied employees in their work forces; unions negotiate for tuition-aid to increase opportunities for their members; employees find new routes to career advancement or improved leisure skills; educational institutions find a new source of students and revenue; and, society benefits from productive workers and effective citizens.

According to the review of several studies by Cross, the most frequently identified reasons why people are motivated to participate in tuition-aid programs are: for personal satisfaction; to seek knowledge for its own sake; to obtain a degree or certificate; to escape; and, to be a better citizen.

The Survey of Adult Learning reported that three primary reasons for learning by Would-Be-Learners and Learners centered around the
clusters: Desire to Know, Desire for Personal Fulfillment, and Desire to Reach a Personal Goal.

Cross stated in her review of numerous studies that barriers to participation are classified under three headings: 

Situational (those factors which arise out of one's position in a family, the workplace, social group, etc., at a given time); 

Psychological (those factors related to the attitudes and self-perceptions one has or to the influence of significant others such as family, friends, etc.); and, 

Institutional (policies and practices of organizations that overtly or subtly exclude or discourage adult workers from participating in learning programs such as scheduling, location, lack of courses, etc.).

Charner (1980:46) added institutional barriers not found in previous studies. These were barriers to adults in corporate environments who are eligible to participate in the corporate tuition-aid programs. The barriers Charner found were barriers such as "inflexibility of the work schedule," "too much red tape in tuition-aid plan," etc.

The Survey of Adult Learning reported that, aside from cost, the most frequently identified barriers seemed to relate to the time factor. "Not enough time," "job responsibilities," and "home responsibilities" all seemed to be ways for the respondent to indicate his/her present life situation did not leave enough free time for learning activities.
The National Institute for Work and Learning examined three programs that boasted high ratings on tuition-aid utilization. There are some common denominators in the three programs. First of all, the effectiveness of the worker education idea depends on full and continuing commitment in an office that carries authority, influence, and adequate financing. This commitment becomes meaningful only as it is carried to the point of establishing a position of liaison administrator who establishes linkage programs between the company and the educational institutions.

Critical to the success of the programs was the extension from paying only part of the tuition costs to paying the full costs. Decisions were made to advance employees the total funds required to pay for costs other than tuition such as materials. Also, constant publicizing of the new opportunities was made available in the three programs. Enrollment and admission requirements were reduced.
CHAPTER III

METHODOLOGY

Introduction

The purpose of this study was to investigate the factors associated with motivation for participation and barriers to participation in tuition-aid programs within the Chesapeake and Potomac Telephone Company. This information is used in conjunction with the review of literature on tuition-aid programs to answer the research questions and generate a set of recommendations for reducing the barriers to tuition-aid participation. The Chesapeake and Potomac Telephone Company is part of the American Telephone and Telegraph system, a major telecommunication corporation. Similar studies have been conducted and reviewed by Carp, Peterson and Roelfs (1974), but this study was conducted to investigate a particular population; employees of a major corporation.

This chapter describes the methods employed in collecting and analyzing the data generated from this study's questionnaire and focuses on: (a) the questionnaire used; (b) The Survey of Adult Learning and the Charner report which provided the basis for the questions used; (c) the study setting and population; (d) data collection procedures; and, (e) data analysis procedures.
The Questionnaire

The questionnaire used for this study was based primarily on a previously developed questionnaire called The Survey of Adult Learning used by the Commission on Non-Traditional Study. Additional questions were drawn from a report by Charner which identified additional barriers which specifically relate to a corporate environment.

The Commission on Non-Traditional Study in 1972 needed to learn the full extent of the unsatisfied educational desires of adults and their actual participation in education in order to make their 1972 recommendations to decision-makers in higher education. To gather information, the Berkeley office of Educational Testing Service designed the survey questionnaire (Appendix A) which The Commission summarized in its final report, Diversity by Design (1973) and which Cyril O. Houle cited in his report for The Commission, The External Degree (1973).

Questions were focused on subject content, learning methods, desire for credit of various types, preferred places of study, time factors in learning, motivations for participating in part-time study, willingness to pay, guidance needs, and perceived barriers to learning. Questions which related to those factors were asked of both groups referred to as "Would-Be Learners" and (actual) "Learners." Several biographical questions were also included for analytic purposes.

In mid-1972, the basic population included approximately 104 million persons aged 18 to 60 living in private households in the United
States, and who were not full-time students. A national probability sample of 2515 households was derived from the most recent census information and systematic random procedures. Interviewers visited these homes and identified residents aged 18 to 60. Seventy-eight percent (1639) had at least one eligible respondent.

Questionnaires were left at the homes and picked up on a return visit by the interviewer. No more than two questionnaires were left at any one household. A total of 2974 people aged 18 to 60 were asked to fill out the survey. Questionnaires were completed by 2004 respondents in 1248 households -- 67 percent of the people asked to fill out the form. Seven percent of the designated respondents could not be reached at home, 26 percent refused to complete the form. The final sample consisted of 1893 respondents.

Each of the 1893 respondents were assigned a weight factor to make the sample comparable to the general American adult population, exclusive of full-time students. Each weight was a combination of three adjustments -- a weight to adjust for the size of the respondent's household; a weight for the geographic location of the respondent; and one for the age, sex, race, and educational attainment of the respondent. These adjustments resulted in a weighted sample size of 3910 (Carp, et al., 1973:6).

The acceptability of The Survey of Adult Learning can be considered to be good because it has had considerable influence on the general
methodology and format of at least thirty large-scale surveys of adult part-time learners. With minor modifications, these surveys have used essentially the same questions of more or less comparable samples of adults. The surveys have analyzed the results in similar formats and have come up with quite consistent findings (Peterson, 1979:62).

For the development of the questionnaire used in the present study, the sections of The Survey of Adult Learning dealing with motivations for participation in part-time study, barriers to part-time study, and questions used to capture demographic data were extracted intact.

The additional questions added to this study's questionnaire were drawn from a report by Charner (1980). Charner's report identified institutional factors that create barriers to participation in corporate tuition-aid programs. He defined institutional factors as policies and practices of organizations that overtly or subtly exclude or discourage adult workers from participating in learning programs. Charner conducted the study for the National Manpower Institute which surveyed fifty-one company and fifty-two union officials. Information was collected on participation, knowledge of tuition-aid plans, barriers, educational attitudes, and background characteristics. The array of institutional factors he found can be grouped into five problem areas: scheduling, location/transportation, lack of courses, application and approval procedures, and information. Generally, one-fourth of all survey respondents report these as barriers to participation (Charner, 1980). The ten questions added to this study's questionnaire were the
ten institutional items identified in Charner's report. They were: "lack of information about tuition-aid programs," "lack of counseling and educational advisement," "lack of company encouragement or reward," "inflexibility of the work schedule," "inconvenient location of courses," "lack of relevant courses," "lack of information on courses," "too much red tape in tuition-aid plan," "lack of confidence in my ability," and, "lack of interest."

The questionnaire developed for this study is displayed in Appendix B. Permission to use the before mentioned sections of The Survey of Adult Learning was granted by Educational Testing Service and is found in Appendix C.

**Study Setting and Population**

The population for this study consisted of those employees from the Chesapeake and Potomac Telephone Company who were eligible for the tuition-aid program. Chesapeake and Potomac Telephone Company is one of the 23 operating companies of the American Telephone and Telegraph System. Demographic characteristics of Chesapeake and Potomac Telephone Company employees at the time of the study were as follows: 6,900 men in management positions, with the average age being 44 years and number of years of service being 21; 4,650 women in management positions, with the average age being 40 years and number of years of service being 18. There were 15,550 men in nonmanagement positions, with the average age being 39 years and number of years of service being 15. There are
19,500 women in nonmanagement positions, with the average age being 37 years and number of years of service being 12 (Richardson, 1982).

Chesapeake and Potomac Telephone Company was selected for two reasons. The average percentage (4%) of its employees who participate in a tuition-aid program reflects the national average of employees who participate in tuition-aid programs according to an extensive review of the literature (Barton, 1981:1). Sixteen hundred management and non-management employees at the Chesapeake and Potomac Telephone Company each year take courses leading to a degree through the tuition-aid program. Secondly, the researcher had direct access to the population as an employee of the training department of the Chesapeake and Potomac Telephone Company.

American Telephone and Telegraph Company employs nearly one million people, about one percent of all American workers. AT&T performs more education and training functions than any university in the world. It spends $700 million a year on programs, compared with that of Massachusetts Institute of Technology's 1977 budget of $222 million. Chesapeake and Potomac spends approximately $20 million a year on training and education. The tuition-aid program is part of the training and education budget. However, in all operating companies of American Telephone and Telegraph, only 30,000 people participate in the tuition-aid program per year (Maeroff, 1981:1).
Sample

Through an interview with the director of the tuition-aid program of Chesapeake and Potomac Telephone Company, it was determined that the sample of participants and nonparticipants were representative of what is to be found throughout the company. The following rationale is provided for employing the sample within this study:

1. The major intent of the study was to gain information about the Chesapeake and Potomac participants and nonparticipants in the tuition-aid program.

2. Since a questionnaire served as the basis for data collection, it was important to maximize the rate of return. Having the ability to control the distribution of the survey instrument served to insure a relatively high response rate.

Permission to conduct the study at Chesapeake and Potomac Telephone Company was obtained from the Assistant Vice-President for Training and Development. The survey questionnaire was distributed by in-house mail to a sample of 230 participants in the tuition-aid program (Fall semester, 1981) and 400 nonparticipants in the tuition-aid program who were selected from a population of 1600 participants and 45,000 nonparticipants.

The sample sizes were based on a table of sample sizes needed to estimate percentages with the error not to exceed 5 percent in 95 out of
100 samples (Sloneim, 1967:78). According to the table, for a population of 45,000 nonparticipants, a sample of 365 would be required. This researcher rounded that number and selected 400 nonparticipants to be the sample size. The table required that for a population of 1600 participants, a sample of 76 would be required. Because there was such easy accessibility to the files of participants and nonparticipants, this researcher decided to sample beyond the numbers required. From the file of participants, every 7th name was selected and from the nonparticipant list, every 113th name was selected.

Data Collection Procedures

The survey questionnaire and cover letter (Appendix B), were sent out January 5, 1982. The anonymity of the respondents to the questionnaire was stressed in the cover letter. It was felt that people would respond more freely and be less sensitive about the image certain responses might create if they did not have to identify themselves by name on the questionnaire. The questionnaire was designed to minimize difficulty in understanding the meaning of each question and to exclude the need for written responses. After a four week waiting period, on February 5, 1982, the questionnaire was sent out again. A cover letter was attached to the questionnaire distributed the second time stating that if they had completed the questionnaire the first time, it was not to be completed a second time. With a strong emphasis placed on the importance of not completing the questionnaire a second time, it was assumed the employee would not duplicate the effort.
Responses were received from 204 out of 230 (89%) of the participants who were surveyed and who had previously participated in the tuition-aid program and 241 out of 400 (60%) of the nonparticipants who were surveyed and who had not participated in the tuition-aid program. It would be expected that nonparticipants would respond at a lesser rate than participants. The data were keypunched, then analyzed using the Statistical Package for the Social Science (SPSS) Program.

**Data Analysis Procedures for Research Questions**

From the data collected, the researcher determined how the information about characteristics of participants and nonparticipants compared.

Research Question 1. What are the characteristics (motivations for participation and barriers that had to be overcome) of employees who do participate in a tuition-aid program?

Research Question 2. What are the characteristics (motivations for possible future participation and barriers to present participation) of employees who do not participate in a tuition-aid program?

The research data were analyzed using the frequency program in the Statistical Package for the Social Science (SPSS). To determine a group decision for research questions 1 and 2, a frequency distribution was
computed to determine what percentage of people responded to each of the three categories per question. The three categories were "very important," "important," and "not important." The three categories represented 100 percent of those responding for the participants and nonparticipants. The number of non-respondents was so few, they were left out of the categories.

If this study were repeated numerous times, responses would vary due to conditions, individual differences, change of opinions, time factors, etc. A procedure was established to determine the group decision for each item. A value to exceed 33 1/3 percent was selected. The value selected was 40 percent for the "important" and "very important" categories and 50 percent for the "not important" category. The "not important" category was weighted heavier because it stood by itself, being the opposite of any degree of "important" or "very important." For example, if 68.9 percent of the nonparticipants selected barrier number 4 as "very important," 68.9 percent exceeds the 40 percent value; therefore, this category was chosen as representing the group decision for nonparticipants.

After that first basic identification of a group decision was made, a second identification was made if the frequencies were close together. Because the categories "important" and "very important" both show that an item is of some value to the group, it was necessary at times to report an item as having value or importance if the combined percentages of "important" and "very important" reached or exceeded the 50th
percentile. For example, if barrier number 14 was considered by 48.9 percent of the group as being "not important" (not quite reaching the required 50 percentile), 35.8 percent considered it as "important" and 15.3 percent considered it as "very important", the values of "important" (35.8%) and "very important" (15.3%) were combined (51.1%) and reported to represent the group decision because combined, they represented over 50 percent of the responses. Because the group was divided about evenly between "not important" and having some importance, it hardly justified discarding barrier number 14 as having no value to the group decision. Therefore, this situation would be reported as being a barrier to participation in a tuition-aid program for the group. The category "not important" was never combined with the category "important" nor "very important" because of its opposite nature. Also, if the category "not important" did not reach the 50 percentile, the combined "important" and "very important" categories would exceed the 50 percentile and be reported as the group decision.

Research question 3 was: How do motivations and barriers of participants and nonparticipants of the tuition-aid program compare with one another? Data were tabulated and a comparison was made of group responses for each item.

Data were collected and analyzed for research question 4 (What policies and procedural recommendations from the literature match the barriers found in this study and what is the feasibility of implementing these policies and procedural recommendations?). Those barriers
identified as important or very important to participation for both groups were matched with recommendations for the reduction of those barriers as found in the literature. The feasibility of implementing a recommendation was determined by surveying the chief decision-makers of the 23 operating companies. The feasibility of implementing a recommendation was defined as one that was desirable and possible to implement. A questionnaire (Appendix D) was sent to the chief decision-maker associated with the tuition-aid program in each of the 23 operating companies. The decision-maker rated each recommendation on a Likert scale from 0-5 ("Not at all feasible" to "Extremely feasible"). The response rate was 100 percent and frequencies for each recommendation were calculated. The recommendations were then ranked from the most feasible recommendation to the least feasible recommendation.

Summary

This chapter described the methods employed in collecting and analyzing the data generated from the survey instrument. This chapter focused on: (a) the questionnaire used in this study; (b) The Survey of Adult Learning and the Charner report which provided the basis for the questionnaire used; (c) study setting and population; (d) data collection procedures; and, (e) data analysis procedures.

Data were collected from a sample of employees of one of the operating companies of The Bell System. The Chesapeake and Potomac
Telephone Company was used as the source for data collection. This company was selected because of the average percentage (4%) of its employees who participate in a tuition-aid program, which is the national average for those employees eligible for participation.

For research questions 1 and 2, frequency distributions were computed to determine the totals for each item in the motivation section, and to determine the totals for each item in the barrier section of the questionnaire.

Research question 3 was: How do motivations and barriers of participants and nonparticipants of the tuition-aid program compare with one another? Data were tabulated and a comparison was made of group responses for each item.

To address research question 4, those barriers identified as important or very important to participation for both groups were matched with recommendations for the reduction of the barriers as found in the literature. The researcher developed a questionnaire which was sent to the decision-makers of the tuition-aid programs in the 23 operating companies to determine if the recommendations would be feasible to implement. The recommendations were then ranked from the most feasible to the least feasible to implement. The results and comments were sent back to the decision-makers and to the appropriate administrators at higher education institutions within the locale of the corporate decision-makers.
CHAPTER IV

FINDINGS OF THE STUDY

The purpose of this study was to gather data about a specific population, employees of the Chesapeake and Potomac Telephone Company, to identify barriers to their participation in a tuition-aid program, to identify barriers that had to be overcome by participants, to identify motivational factors for participants, to identify motivational factors for nonparticipants who consider being participants in the future, to compare group differences regarding motivational factors and barriers to participation, to report demographic characteristics of participants and nonparticipants, and to make recommendations for reducing the barriers in order to increase participation.

Research Question #1 - Motivational Characteristics

Research question #1 regarding the motivational characteristics of adult employees who participated in the company tuition-aid program involved reasons people identified in terms of relative importance with respect to their participation in the program. The relative frequencies and percentages of these twenty reasons in terms of importance to participation are shown for the participant group in Table IV-1. In all tables reported in this study, the darkened numbers indicate the category or combined categories that represent the group decision.
Table IV-1

Table of Frequencies with Percentages for Participant Group (204) Regarding Motivational Characteristics Ranked According to the Percentage of Response in the Very Important Category

<table>
<thead>
<tr>
<th>Reason</th>
<th>Not Important</th>
<th>Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Become better informed, personal enjoyment and enrichment</td>
<td>9 (4.4%)</td>
<td>44 (21.6%)</td>
<td>147 (72.1%)</td>
</tr>
<tr>
<td>13. Work toward a degree</td>
<td>22 (10.8%)</td>
<td>39 (19.1%)</td>
<td>139 (68.1%)</td>
</tr>
<tr>
<td>2. Help to advance in present workgroup</td>
<td>23 (11.3%)</td>
<td>70 (34.3%)</td>
<td>108 (52.9%)</td>
</tr>
<tr>
<td>1. Help learn a new skill so I can go to another workgroup in the company</td>
<td>36 (17.6%)</td>
<td>70 (34.3%)</td>
<td>93 (45.6%)</td>
</tr>
<tr>
<td>11. Meet the requirements of my employer, profession or someone in authority</td>
<td>54 (26.5%)</td>
<td>75 (36.8%)</td>
<td>68 (33.3%)</td>
</tr>
<tr>
<td>16. Curiosity, learn for the sake of learning</td>
<td>52 (25.5%)</td>
<td>83 (40.7%)</td>
<td>63 (30.9%)</td>
</tr>
<tr>
<td>5. Meet requirements for getting into an educational program</td>
<td>89 (43.6%)</td>
<td>50 (24.5%)</td>
<td>59 (28.9%)</td>
</tr>
<tr>
<td>8. Work toward certification or licensing</td>
<td>88 (43.1%)</td>
<td>57 (27.9%)</td>
<td>54 (26.5%)</td>
</tr>
<tr>
<td>17. Become a happier person</td>
<td>78 (38.2%)</td>
<td>72 (35.3%)</td>
<td>48 (23.5%)</td>
</tr>
<tr>
<td>12. Become a more effective citizen</td>
<td>63 (30.9%)</td>
<td>91 (44.6%)</td>
<td>44 (21.6%)</td>
</tr>
<tr>
<td>4. Meet new people</td>
<td>100 (49.0%)</td>
<td>73 (35.8%)</td>
<td>25 (12.3%)</td>
</tr>
<tr>
<td>6. Be a better parent, husband or wife</td>
<td>124 (60.8%)</td>
<td>50 (24.5%)</td>
<td>21 (10.3%)</td>
</tr>
<tr>
<td>18. Work toward solutions of problems such as discrimination and pollution</td>
<td>130 (63.7%)</td>
<td>46 (22.5%)</td>
<td>20 (9.8%)</td>
</tr>
<tr>
<td>9. Better understand community problems</td>
<td>119 (58.3%)</td>
<td>60 (29.4%)</td>
<td>17 (8.3%)</td>
</tr>
<tr>
<td>14. Learn more about my own background and culture</td>
<td>127 (62.3%)</td>
<td>52 (25.5%)</td>
<td>16 (7.8%)</td>
</tr>
<tr>
<td>7. Get away from the routine of daily living</td>
<td>120 (58.8%)</td>
<td>64 (31.4%)</td>
<td>14 (6.9%)</td>
</tr>
<tr>
<td>15. Feel a sense of belonging</td>
<td>130 (63.7%)</td>
<td>55 (27.0%)</td>
<td>11 (5.4%)</td>
</tr>
<tr>
<td>20. Improve my spiritual well-being</td>
<td>137 (67.2%)</td>
<td>47 (23.0%)</td>
<td>10 (4.9%)</td>
</tr>
<tr>
<td>10. Be better able to serve my church</td>
<td>163 (79.9%)</td>
<td>27 (13.2%)</td>
<td>4 (2.0%)</td>
</tr>
<tr>
<td>19. Get away from personal problems</td>
<td>175 (85.8%)</td>
<td>17 (8.3%)</td>
<td>3 (1.5%)</td>
</tr>
</tbody>
</table>

Note: All reasons do not total 204 because of non-response. Numbers in parentheses identify the percentage of the responses.
From this table it can be seen that reasons 1, 2, 3 and 13, or "help learn a new skill so I can go to another workgroup in the company", "help to advance in present workgroup", "become better informed, personal enjoyment and enrichment", and "to work toward a degree", respectively, were rated by participants as "very important" motivational characteristics for participating in the program.

Reasons 5, 8, 11, 12, 16 and 17 or "to meet the requirements for getting into an educational program", "to work toward certification or licensing", "to meet employer or professional requirements", "to become a more effective citizen", "to learn for the sake of learning and curiosity", and "to become a happier person", respectively, were viewed by participants as being "important" or at least of some value with respect to their participation.

Research Question #1 -- Barriers to Participation

With regard to research question #1 and barriers to be overcome by participants, refer to Table IV-2.
Table IV-2

Table of Frequencies with Percentages for Participant Group (204) Regarding Barriers Which Had to be Overcome for Participation Ranked According to the Percentage of Response in the Very Important Category

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Not Important</th>
<th>Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Not enough time</td>
<td>69 (33.8%)</td>
<td>64 (31.4%)</td>
<td>63 (30.9%)</td>
</tr>
<tr>
<td>1. Cost, including books, learning materials, child care, transportation</td>
<td>91 (44.6%)</td>
<td>59 (28.9%)</td>
<td>46 (22.5%)</td>
</tr>
<tr>
<td>15. Home responsibilities</td>
<td>106 (52.0%)</td>
<td>51 (25.0%)</td>
<td>39 (19.1%)</td>
</tr>
<tr>
<td>16. Job responsibilities</td>
<td>114 (55.9%)</td>
<td>47 (23.0%)</td>
<td>35 (17.2%)</td>
</tr>
<tr>
<td>9. Courses I want aren't scheduled when I can attend</td>
<td>129 (63.2%)</td>
<td>46 (22.5%)</td>
<td>21 (10.3%)</td>
</tr>
<tr>
<td>26. Lack of company encouragement or reward</td>
<td>134 (65.7%)</td>
<td>41 (20.1%)</td>
<td>21 (10.3%)</td>
</tr>
<tr>
<td>3. Amount of time required to complete program</td>
<td>114 (55.9%)</td>
<td>63 (30.9%)</td>
<td>19 (9.3%)</td>
</tr>
<tr>
<td>27. Inflexibility of the work schedule</td>
<td>158 (77.5%)</td>
<td>21 (10.3%)</td>
<td>17 (8.3%)</td>
</tr>
<tr>
<td>6. Don't know what I'd like to learn or what it would lead to</td>
<td>172 (84.3%)</td>
<td>13 (6.4%)</td>
<td>11 (5.4%)</td>
</tr>
<tr>
<td>28. Inconvenient location of courses</td>
<td>163 (79.9%)</td>
<td>22 (10.8%)</td>
<td>11 (5.4%)</td>
</tr>
<tr>
<td>17. Not enough energy and stamina</td>
<td>155 (76.0%)</td>
<td>32 (15.7%)</td>
<td>9 (4.4%)</td>
</tr>
<tr>
<td>21. Courses I want don't seem to be available</td>
<td>163 (79.9%)</td>
<td>24 (11.8%)</td>
<td>9 (4.4%)</td>
</tr>
<tr>
<td>31. Too much red tape in tuition-aid plan</td>
<td>167 (81.9%)</td>
<td>21 (10.3%)</td>
<td>8 (3.9%)</td>
</tr>
<tr>
<td>22. Don't enjoy studying</td>
<td>175 (85.8%)</td>
<td>14 (6.9%)</td>
<td>7 (3.4%)</td>
</tr>
<tr>
<td>23. Tired of going to school, tired of classrooms</td>
<td>175 (85.8%)</td>
<td>15 (7.4%)</td>
<td>6 (2.9%)</td>
</tr>
<tr>
<td>25. Lack of counseling and educational advisement</td>
<td>170 (83.3%)</td>
<td>20 (9.8%)</td>
<td>6 (2.9%)</td>
</tr>
<tr>
<td>12. Too much red tape in getting enrolled</td>
<td>168 (82.4%)</td>
<td>23 (11.3%)</td>
<td>5 (2.5%)</td>
</tr>
<tr>
<td>32. Lack of confidence in my ability</td>
<td>181 (88.7%)</td>
<td>10 (4.9%)</td>
<td>5 (2.5%)</td>
</tr>
<tr>
<td>5. Strict attendance requirements</td>
<td>186 (91.2%)</td>
<td>6 (2.9%)</td>
<td>4 (2.0%)</td>
</tr>
<tr>
<td>11. No transportation</td>
<td>191 (93.6%)</td>
<td>1 (0.5%)</td>
<td>4 (2.0%)</td>
</tr>
<tr>
<td>24. Lack of information about tuition-aid program</td>
<td>176 (86.3%)</td>
<td>16 (7.8%)</td>
<td>4 (2.0%)</td>
</tr>
<tr>
<td>8. No child care</td>
<td>181 (88.7%)</td>
<td>11 (5.4%)</td>
<td>4 (2.0%)</td>
</tr>
<tr>
<td>7. No place to study or practice</td>
<td>189 (92.6%)</td>
<td>4 (2.0%)</td>
<td>3 (1.5%)</td>
</tr>
<tr>
<td>18. Afraid that I'm too old to begin</td>
<td>179 (87.7%)</td>
<td>14 (6.9%)</td>
<td>3 (1.5%)</td>
</tr>
<tr>
<td>19. Low grades in the past, not confident of my ability</td>
<td>187 (91.7%)</td>
<td>6 (2.9%)</td>
<td>3 (1.5%)</td>
</tr>
<tr>
<td>29. Lack of relevant courses</td>
<td>186 (91.2%)</td>
<td>8 (3.9%)</td>
<td>2 (1.0%)</td>
</tr>
<tr>
<td>14. Friends or family don't like the idea</td>
<td>186 (91.2%)</td>
<td>8 (3.9%)</td>
<td>2 (1.0%)</td>
</tr>
<tr>
<td>30. Lack of information on courses</td>
<td>190 (93.1%)</td>
<td>5 (2.5%)</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>33. Lack of interest</td>
<td>189 (92.6%)</td>
<td>6 (2.9%)</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>4. No way to get credit for a degree</td>
<td>193 (94.6%)</td>
<td>2 (1.0%)</td>
<td>1 (0.5%)</td>
</tr>
<tr>
<td>10. No information about places or people offering what I want</td>
<td>189 (92.6%)</td>
<td>7 (3.4%)</td>
<td>-</td>
</tr>
<tr>
<td>13. Hesitate to seem too ambitious</td>
<td>192 (94.1%)</td>
<td>4 (2.0%)</td>
<td>-</td>
</tr>
<tr>
<td>20. Don't meet requirements to begin program</td>
<td>195 (95.6%)</td>
<td>1 (0.5%)</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: All reasons do not total 204 because of non-response. Numbers in parentheses identify the percentage of the responses.
Only barriers 1 and 2, when "very important" and "important" were combined, exceeded the 50th percentile. Barrier 1 was "cost, including books, learning materials, child care, transportation". Barrier 2 was "not enough time". No other barriers reached the 50th percentile level to be categorized as important barriers.

**Research Question #2 -- Motivations for Possible Future Participation and Barriers to Present Participation**

Research question #2 examined the motivations for possible future participation and barriers to present participation as provided by the sample of company employees who did not participate in a tuition-aid program. This analysis involved twenty reasons for possible future participation and 33 barriers to participation reported in terms of relative importance. The relative frequencies and percentages of these reasons and barriers in terms of their bearing on nonparticipation in a program are presented for the nonparticipant group in Table IV-3 and Table IV-4.
<table>
<thead>
<tr>
<th>Reason</th>
<th>Not Important</th>
<th>Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Become better informed, personal enjoyment and enrichment</td>
<td>6 (2.5)</td>
<td>77 (32.0)</td>
<td>156 (64.7)</td>
</tr>
<tr>
<td>11. Meet the requirements of my employer, profession or someone in authority</td>
<td>22 (9.1)</td>
<td>88 (36.5)</td>
<td>127 (52.7)</td>
</tr>
<tr>
<td>2. Help to advance in present workgroup</td>
<td>37 (15.4)</td>
<td>82 (34.0)</td>
<td>119 (49.4)</td>
</tr>
<tr>
<td>1. Help learn a new skill so I can go to another workgroup in the company</td>
<td>33 (13.7)</td>
<td>108 (44.8)</td>
<td>97 (40.2)</td>
</tr>
<tr>
<td>17. Become a happier person</td>
<td>72 (29.9)</td>
<td>93 (38.6)</td>
<td>74 (30.7)</td>
</tr>
<tr>
<td>13. Work toward a degree</td>
<td>78 (32.4)</td>
<td>88 (36.5)</td>
<td>72 (29.9)</td>
</tr>
<tr>
<td>8. Work toward certification or licensing</td>
<td>85 (35.3)</td>
<td>87 (36.1)</td>
<td>66 (27.4)</td>
</tr>
<tr>
<td>6. Be a better parent, husband or wife</td>
<td>83 (34.4)</td>
<td>91 (37.8)</td>
<td>59 (24.5)</td>
</tr>
<tr>
<td>12. Become a more effective citizen</td>
<td>44 (18.3)</td>
<td>138 (57.3)</td>
<td>55 (22.8)</td>
</tr>
<tr>
<td>16. Curiosity, learn for the sake of learning</td>
<td>61 (25.3)</td>
<td>121 (50.2)</td>
<td>54 (22.4)</td>
</tr>
<tr>
<td>5. Meet requirements for getting into an educational program</td>
<td>81 (33.6)</td>
<td>105 (43.6)</td>
<td>52 (21.6)</td>
</tr>
<tr>
<td>18. Work toward solutions of problems such as discrimination and pollution</td>
<td>106 (44.0)</td>
<td>87 (36.1)</td>
<td>42 (17.4)</td>
</tr>
<tr>
<td>20. Improve my spiritual well-being</td>
<td>122 (50.6)</td>
<td>82 (34.0)</td>
<td>34 (14.1)</td>
</tr>
<tr>
<td>14. Learn more about my own background and culture</td>
<td>119 (49.4)</td>
<td>84 (34.9)</td>
<td>34 (14.1)</td>
</tr>
<tr>
<td>10. Be better able to serve my church</td>
<td>133 (55.2)</td>
<td>72 (29.9)</td>
<td>32 (13.3)</td>
</tr>
<tr>
<td>15. Feel a sense of belonging</td>
<td>131 (54.4)</td>
<td>77 (32.0)</td>
<td>30 (12.4)</td>
</tr>
<tr>
<td>4. Meet new people</td>
<td>109 (45.2)</td>
<td>101 (41.9)</td>
<td>27 (11.2)</td>
</tr>
<tr>
<td>9. Better understand community problems</td>
<td>71 (29.5)</td>
<td>142 (58.9)</td>
<td>25 (10.4)</td>
</tr>
<tr>
<td>7. Get away from the routine of daily living</td>
<td>133 (55.2)</td>
<td>82 (34.0)</td>
<td>23 (9.5)</td>
</tr>
<tr>
<td>19. Get away from personal problems</td>
<td>183 (75.9)</td>
<td>44 (18.3)</td>
<td>11 (4.6)</td>
</tr>
</tbody>
</table>

Note: All reasons do not total 241 because of non-response. Numbers in parentheses identify the percentage of the response.
Inspection of Table IV-3 reveals that reasons 1, 2, 3 and 11, or "to help learn a new skill so I can go to another workgroup in the company", "to help advance in present workgroup", "become better informed, personal enjoyment and enrichment", and meet the requirements of my employer, profession or someone in authority", respectively, were cited by nonparticipants as "very important" reasons for future enrollment in the tuition-aid program, should they elect to participate.

Reasons 4, 5, 6, 8, 9, 12, 13, 16, 17 and 18 or "to meet new people", "to be a better parent, husband or wife", "to work toward certification or licensing", "to meet requirements for getting into an educational program", "to better understand community problems", "to work toward a degree", "to become a more effective citizen", "to learn for the sake of learning and curiosity", "to become a happier person", and, "to work toward solutions of problems such as discrimination and pollution" were viewed as "very important" or at least of some importance by nonparticipants with respect to future enrollment.

With respect to barriers to present participation, Table IV-4 reveals that only barrier 2, not enough time, was cited as a significant barrier to participation by combining "important" and "very important." No other barriers reached the 50th percentile level and were therefore not categorized as important barriers.
Table IV-4

Table of Frequencies with Percentages for Nonparticipant Group (241) Regarding Barriers to Participation in Program Ranked According to the Percentage of Response in the Very Important Category

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Not Important</th>
<th>Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Not enough time</td>
<td>85 (35.3)</td>
<td>72 (29.9)</td>
<td>83 (34.8)</td>
</tr>
<tr>
<td>15. Home responsibilities</td>
<td>123 (51.0)</td>
<td>64 (26.6)</td>
<td>53 (22.0)</td>
</tr>
<tr>
<td>26. Lack of company encouragement or reward</td>
<td>151 (62.7)</td>
<td>53 (22.0)</td>
<td>36 (14.9)</td>
</tr>
<tr>
<td>1. Cost, including books, learning, materials, child care, transportation</td>
<td>161 (66.8)</td>
<td>47 (19.5)</td>
<td>32 (13.3)</td>
</tr>
<tr>
<td>27. Inflexibility of the work schedule</td>
<td>186 (77.2)</td>
<td>30 (12.4)</td>
<td>24 (10.0)</td>
</tr>
<tr>
<td>16. Job responsibilities</td>
<td>166 (68.9)</td>
<td>53 (22.0)</td>
<td>21 (8.7)</td>
</tr>
<tr>
<td>28. Inconvenient location of courses</td>
<td>159 (66.0)</td>
<td>62 (25.7)</td>
<td>19 (7.9)</td>
</tr>
<tr>
<td>18. Afraid that I'm too old to begin</td>
<td>203 (84.2)</td>
<td>21 (8.7)</td>
<td>16 (6.6)</td>
</tr>
<tr>
<td>21. Courses I want don't seem to be available</td>
<td>202 (83.8)</td>
<td>24 (10.0)</td>
<td>14 (5.8)</td>
</tr>
<tr>
<td>24. Lack of information about tuition-aid program</td>
<td>172 (71.4)</td>
<td>54 (22.4)</td>
<td>14 (5.8)</td>
</tr>
<tr>
<td>22. Don't enjoy studying</td>
<td>194 (80.5)</td>
<td>33 (13.7)</td>
<td>13 (5.4)</td>
</tr>
<tr>
<td>3. Amount of time required to complete program</td>
<td>184 (76.3)</td>
<td>43 (17.8)</td>
<td>13 (5.4)</td>
</tr>
<tr>
<td>9. Courses I want aren't scheduled when I can attend</td>
<td>174 (72.2)</td>
<td>54 (22.4)</td>
<td>12 (5.0)</td>
</tr>
<tr>
<td>17. Not enough energy and stamina</td>
<td>191 (79.3)</td>
<td>37 (15.4)</td>
<td>12 (5.0)</td>
</tr>
<tr>
<td>25. Lack of counseling and educational advisement</td>
<td>201 (83.4)</td>
<td>27 (11.2)</td>
<td>12 (5.0)</td>
</tr>
<tr>
<td>33. Lack of interest</td>
<td>206 (85.5)</td>
<td>22 (9.1)</td>
<td>12 (5.0)</td>
</tr>
<tr>
<td>6. Don't know what I'd like to learn or what it would lead to</td>
<td>186 (77.2)</td>
<td>43 (17.8)</td>
<td>11 (4.6)</td>
</tr>
<tr>
<td>8. No child care</td>
<td>222 (92.1)</td>
<td>7 (2.9)</td>
<td>11 (4.6)</td>
</tr>
<tr>
<td>31. Too much red tape in tuition-aid plan</td>
<td>211 (87.6)</td>
<td>20 (8.3)</td>
<td>9 (3.7)</td>
</tr>
<tr>
<td>10. No information about places or people offering what I want</td>
<td>196 (81.3)</td>
<td>35 (14.5)</td>
<td>9 (3.7)</td>
</tr>
<tr>
<td>29. Lack of relevant courses</td>
<td>205 (85.1)</td>
<td>27 (11.2)</td>
<td>8 (3.3)</td>
</tr>
<tr>
<td>32. Lack of confidence in my ability</td>
<td>212 (88.0)</td>
<td>21 (8.7)</td>
<td>7 (2.9)</td>
</tr>
<tr>
<td>12. Too much red tape in getting enrolled</td>
<td>215 (89.2)</td>
<td>18 (7.5)</td>
<td>7 (2.9)</td>
</tr>
<tr>
<td>30. Lack of information on courses</td>
<td>180 (74.7)</td>
<td>54 (22.4)</td>
<td>6 (2.5)</td>
</tr>
<tr>
<td>23. Tired of going to school, tired of classrooms</td>
<td>214 (88.8)</td>
<td>20 (8.3)</td>
<td>6 (2.5)</td>
</tr>
<tr>
<td>4. No way to get credit for a degree</td>
<td>225 (93.4)</td>
<td>12 (5.0)</td>
<td>3 (1.2)</td>
</tr>
<tr>
<td>5. Strict attendance requirements</td>
<td>218 (90.5)</td>
<td>19 (7.9)</td>
<td>3 (1.2)</td>
</tr>
<tr>
<td>20. Don't meet requirements to begin program</td>
<td>225 (93.4)</td>
<td>12 (5.0)</td>
<td>3 (1.2)</td>
</tr>
<tr>
<td>19. Low grades in the past, not confident of my ability</td>
<td>224 (92.9)</td>
<td>12 (5.0)</td>
<td>4 (1.7)</td>
</tr>
<tr>
<td>11. No transportation</td>
<td>229 (95.0)</td>
<td>9 (3.7)</td>
<td>2 (8.3)</td>
</tr>
<tr>
<td>14. Friends or family don't like the idea</td>
<td>235 (97.5)</td>
<td>4 (1.7)</td>
<td>1 (6.0)</td>
</tr>
<tr>
<td>7. No place to study or practice</td>
<td>235 (97.5)</td>
<td>4 (1.7)</td>
<td>1 (6.0)</td>
</tr>
<tr>
<td>13. Hesitate to seem too ambitious</td>
<td>234 (97.1)</td>
<td>6 (2.5)</td>
<td>-</td>
</tr>
</tbody>
</table>

Note: All reasons do not total 241 because of non-response. Numbers in parentheses identify the percentage of the responses.
Research Question #3 - Group Responses for Motivational Factors and Barriers to Participation

Another aspect of this study concerns the comparison of group responses between participants and nonparticipants with regard to motivational characteristics and barriers to participation.

Comparison of Responses Between Participant and Nonparticipant Groups Regarding Motivational Characteristics

Table IV-5 shows the comparison between the participant group and nonparticipant group regarding motivational characteristics. As can be seen, both groups identified the following items as "very important": reason 1, "help learn a new skill so I can go to another workgroup in the company"; reason 2, "help to advance in present workgroup"; and reason 3, "become better informed, personal enjoyment and enrichment." A difference between the groups was that the participant group also identified reason 13, "to work toward a degree" as "very important", whereas, the nonparticipant group also rated reason 11, "meet the requirements of my employer, professional or someone in authority" as "very important."

In the category of "important", the following items were rated similarly by both the participant and nonparticipant groups: reason 5, "to meet the requirements for getting into an educational program"; reason 8, "to work toward certification or licensing"; reason 12, "to
become a more effective citizen"; reason 16, "to learn for the sake of learning and curiosity"; and reason 17, "to become a happier person."

The groups differed on the rating of four items that the participants identified as "not at all important" and the nonparticipants identified as "important" or at least of some value. The following items were identified by the participants as "not at all important": reason 4, "to meet new people"; reason 6, "to meet requirements for getting into an educational program"; reason 9, "better understand community problems"; and reason 18, "work toward solutions to problems such as discrimination and pollution. As stated before, these same items were identified by the nonparticipants as "important" or at least of some value.
Table IV-5

Comparison of Responses Between Participant Group (204) and Nonparticipant Group (241) Regarding Motivational Characteristics

<table>
<thead>
<tr>
<th>Motivational Factors</th>
<th>Group Decision - Participants</th>
<th>Group Decision - Nonparticipants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Help learn a new skill so I can go to another workgroup in the company</td>
<td>&quot;Very Important&quot; (46%)</td>
<td>&quot;Very Important&quot; (40%)</td>
</tr>
<tr>
<td>2. Help to advance in present workgroup</td>
<td>&quot;Very Important&quot; (53%)</td>
<td>&quot;Very Important&quot; (49%)</td>
</tr>
<tr>
<td>3. Become better informed, personal enjoyment and enrichment</td>
<td>&quot;Very Important&quot; (72%)</td>
<td>&quot;Very Important&quot; (6%)</td>
</tr>
<tr>
<td>4. Meet new people</td>
<td>&quot;Not Important&quot; (49%)</td>
<td>&quot;Important&quot; (53%)</td>
</tr>
<tr>
<td>5. Meet requirements for getting into an educational program</td>
<td>&quot;Important&quot; (53%)</td>
<td>&quot;Important&quot; (65%)</td>
</tr>
<tr>
<td>6. Be a better parent, husband or wife</td>
<td>&quot;Not Important&quot; (61%)</td>
<td>&quot;Important&quot; (62%)</td>
</tr>
<tr>
<td>7. Get away from the routine of daily living</td>
<td>&quot;Not Important&quot; (59%)</td>
<td>&quot;Not Important&quot; (55%)</td>
</tr>
<tr>
<td>8. Work toward certification or licensing</td>
<td>&quot;Important&quot; (54%)</td>
<td>&quot;Important&quot; (64%)</td>
</tr>
<tr>
<td>9. Better understand community problems</td>
<td>&quot;Not Important&quot; (58%)</td>
<td>&quot;Important&quot; (69%)</td>
</tr>
<tr>
<td>10. Be better able to serve my church</td>
<td>&quot;Not Important&quot; (80%)</td>
<td>&quot;Not Important&quot; (55%)</td>
</tr>
<tr>
<td>11. Meet the requirements of my employer, profession or someone in authority</td>
<td>&quot;Important&quot; (70%)</td>
<td>&quot;Very Important&quot; (53%)</td>
</tr>
<tr>
<td>12. Become a more effective citizen</td>
<td>&quot;Important&quot; (66%)</td>
<td>&quot;Important&quot; (80%)</td>
</tr>
<tr>
<td>13. Work toward a degree</td>
<td>&quot;Very Important&quot; (68%)</td>
<td>&quot;Important&quot; (66%)</td>
</tr>
<tr>
<td>14. Learn more about my own background and culture</td>
<td>&quot;Not Important&quot; (62%)</td>
<td>&quot;Not Important&quot; (49%)</td>
</tr>
<tr>
<td>15. Feel a sense of belonging</td>
<td>&quot;Not Important&quot; (64%)</td>
<td>&quot;Not Important&quot; (54%)</td>
</tr>
<tr>
<td>16. Curiosity, learn for the sake of learning</td>
<td>&quot;Important&quot; (72%)</td>
<td>&quot;Important&quot; (73%)</td>
</tr>
<tr>
<td>17. Become a happier person</td>
<td>&quot;Important&quot; (59%)</td>
<td>&quot;Important&quot; (69%)</td>
</tr>
<tr>
<td>18. Work toward solutions of problems such as discrimination and pollution</td>
<td>&quot;Not Important&quot; (64%)</td>
<td>&quot;Important&quot; (54%)</td>
</tr>
<tr>
<td>19. Get away from personal problems</td>
<td>&quot;Not Important&quot; (86%)</td>
<td>&quot;Not Important&quot; (76%)</td>
</tr>
<tr>
<td>20. Improve my spiritual well-being</td>
<td>&quot;Not Important&quot; (67%)</td>
<td>&quot;Not Important&quot; (51%)</td>
</tr>
</tbody>
</table>

Note: All reasons do not total 204 for the participant group and 241 for the nonparticipant group because of non-response. Numbers in parentheses identify the percentage of the responses.
Barriers

The comparison of group responses between participants and nonparticipants with regard to barriers are shown in Table IV-6 to answer research question number 3.

Comparison of Responses Between Participants and Nonparticipant Groups Regarding Barriers

Table IV-6 shows the comparison between the participant and nonparticipant group regarding barriers. Only barrier 2 was identified by both participants and nonparticipants as "important" or at least of some importance. Barrier 2 was "not enough time." The participant group similarly identified barrier 1, "cost, including books, learning materials, child care, transportation" as "important" or at least of some importance.
Table IV-6

Comparison of Responses Between Participant Group (204) and Nonparticipant Group (241) Regarding Barriers

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Group Decision - Participants</th>
<th>Group Decision - Nonparticipants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cost, including books, learning materials, child care, transportation</td>
<td>&quot;Important&quot; (51%)</td>
<td>&quot;Not Important&quot; (67%)</td>
</tr>
<tr>
<td>2. Not enough time</td>
<td>&quot;Important&quot; (62%)</td>
<td>&quot;Important&quot; (64%)</td>
</tr>
<tr>
<td>3. Amount of time required to complete program</td>
<td>&quot;Not Important&quot; (56%)</td>
<td>&quot;Not Important&quot; (76%)</td>
</tr>
<tr>
<td>4. No way to get credit for a degree</td>
<td>&quot;Not Important&quot; (95%)</td>
<td>&quot;Not Important&quot; (93%)</td>
</tr>
<tr>
<td>5. Strict attendance requirements</td>
<td>&quot;Not Important&quot; (91%)</td>
<td>&quot;Not Important&quot; (91%)</td>
</tr>
<tr>
<td>6. Don't know what I'd like to learn or what it would lead to</td>
<td>&quot;Not Important&quot; (84%)</td>
<td>&quot;Not Important&quot; (77%)</td>
</tr>
<tr>
<td>7. No place to study or practice</td>
<td>&quot;Not Important&quot; (93%)</td>
<td>&quot;Not Important&quot; (98%)</td>
</tr>
<tr>
<td>8. No child care</td>
<td>&quot;Not Important&quot; (89%)</td>
<td>&quot;Not Important&quot; (92%)</td>
</tr>
<tr>
<td>9. Courses I want aren't scheduled when I can attend</td>
<td>&quot;Not Important&quot; (63%)</td>
<td>&quot;Not Important&quot; (72%)</td>
</tr>
<tr>
<td>10. No information about places or people offering what I want</td>
<td>&quot;Not Important&quot; (93%)</td>
<td>&quot;Not Important&quot; (81%)</td>
</tr>
<tr>
<td>11. No transportation</td>
<td>&quot;Not Important&quot; (94%)</td>
<td>&quot;Not Important&quot; (95%)</td>
</tr>
<tr>
<td>12. Too much red tape in getting enrolled</td>
<td>&quot;Not Important&quot; (82%)</td>
<td>&quot;Not Important&quot; (89%)</td>
</tr>
<tr>
<td>13. Hesitate to seem too ambitious</td>
<td>&quot;Not Important&quot; (94%)</td>
<td>&quot;Not Important&quot; (97%)</td>
</tr>
<tr>
<td>14. Friends or family don't like the idea</td>
<td>&quot;Not Important&quot; (91%)</td>
<td>&quot;Not Important&quot; (97%)</td>
</tr>
<tr>
<td>15. Home responsibilities</td>
<td>&quot;Not Important&quot; (52%)</td>
<td>&quot;Not Important&quot; (51%)</td>
</tr>
<tr>
<td>16. Job responsibilities</td>
<td>&quot;Not Important&quot; (56%)</td>
<td>&quot;Not Important&quot; (59%)</td>
</tr>
<tr>
<td>17. Not enough energy and stamina</td>
<td>&quot;Not Important&quot; (76%)</td>
<td>&quot;Not Important&quot; (79%)</td>
</tr>
<tr>
<td>18. Afraid that I'm too old to begin</td>
<td>&quot;Not Important&quot; (88%)</td>
<td>&quot;Not Important&quot; (84%)</td>
</tr>
<tr>
<td>19. Low grades in the past, not confident of my ability</td>
<td>&quot;Not Important&quot; (92%)</td>
<td>&quot;Not Important&quot; (93%)</td>
</tr>
<tr>
<td>20. Don't meet requirements to begin program</td>
<td>&quot;Not Important&quot; (96%)</td>
<td>&quot;Not Important&quot; (93%)</td>
</tr>
<tr>
<td>21. Courses I want don't seem to be available</td>
<td>&quot;Not Important&quot; (80%)</td>
<td>&quot;Not Important&quot; (84%)</td>
</tr>
<tr>
<td>22. Don't enjoy studying</td>
<td>&quot;Not Important&quot; (85%)</td>
<td>&quot;Not Important&quot; (81%)</td>
</tr>
<tr>
<td>23. Tired of going to school, tired of classrooms</td>
<td>&quot;Not Important&quot; (86%)</td>
<td>&quot;Not Important&quot; (89%)</td>
</tr>
<tr>
<td>24. Lack of information about tuition-aid program</td>
<td>&quot;Not Important&quot; (86%)</td>
<td>&quot;Not Important&quot; (71%)</td>
</tr>
<tr>
<td>25. Lack of counseling and educational advisement</td>
<td>&quot;Not Important&quot; (83%)</td>
<td>&quot;Not Important&quot; (83%)</td>
</tr>
<tr>
<td>26. Lack of company encouragement or reward</td>
<td>&quot;Not Important&quot; (66%)</td>
<td>&quot;Not Important&quot; (63%)</td>
</tr>
<tr>
<td>27. Inflexibility of the work schedule</td>
<td>&quot;Not Important&quot; (78%)</td>
<td>&quot;Not Important&quot; (77%)</td>
</tr>
<tr>
<td>28. Inconvenient location of courses</td>
<td>&quot;Not Important&quot; (80%)</td>
<td>&quot;Not Important&quot; (66%)</td>
</tr>
<tr>
<td>29. Lack of relevant courses</td>
<td>&quot;Not Important&quot; (91%)</td>
<td>&quot;Not Important&quot; (85%)</td>
</tr>
<tr>
<td>30. Lack of information on courses</td>
<td>&quot;Not Important&quot; (93%)</td>
<td>&quot;Not Important&quot; (75%)</td>
</tr>
<tr>
<td>31. Too much red tape in tuition-aid plan</td>
<td>&quot;Not Important&quot; (82%)</td>
<td>&quot;Not Important&quot; (88%)</td>
</tr>
<tr>
<td>32. Lack of confidence in my ability</td>
<td>&quot;Not Important&quot; (89%)</td>
<td>&quot;Not Important&quot; (88%)</td>
</tr>
<tr>
<td>33. Lack of interest</td>
<td>&quot;Not Important&quot; (93%)</td>
<td>&quot;Not Important&quot; (86%)</td>
</tr>
</tbody>
</table>

Note: All reasons do not total 204 for the participant group and 241 for the nonparticipant group because of non-response. Numbers in parentheses identify the percentage of the responses.
Research Question #4 - What policies and procedural recommendations from the literature match the barriers found in this study and what is the feasibility of implementation of these policies and procedural recommendations?

As stated before, only two barriers had achieved at least a 50 percent level of importance for the participant and nonparticipant groups when the categories "very important" and "important" were combined. Those barriers were: barrier 1, "cost, including books, learning materials, child care, transportation," and barrier 2, "not enough time." There were a number of barriers that had not achieved group ratings of important but substantial numbers of respondents identified them as important. An arbitrary decision was made to include these in order to increase the number of barriers for further study. They were: barrier 3, "amount of time required to complete program" (40 percent for participants and 23 percent for nonparticipants); barrier 9, "courses I want aren't scheduled when I can attend" (33 percent for participants and 27 percent for nonparticipants); barrier 15, "home responsibilities" (44 percent for participants and 49 percent for nonparticipants); barrier 16, "job responsibilities" (40 percent for participants and 31 percent for nonparticipants); barrier 26, "lack of company encouragement or reward" (30 percent for participants and 37 percent for nonparticipants); and barrier 28, "inconvenient location of courses" (16 percent for participants and 34 percent for nonparticipants).
Decision-Makers' Ranking of Feasibility of Implementing Recommendations

When the final list of eight barriers were identified, a letter (Appendix D) was drafted and sent to the chief decision-makers of tuition-aid programs in the 23 companies of the Bell Telephone System with the eight barriers listed along with the recommendations from the literature that match those barriers. The decision-makers rated each recommendation on a Likert scale from 0-5 ("Not At All Feasible" to "Extremely Feasible"). The feasibility of a recommendation was defined as one which was desirable and possible to implement. All of the 23 decision-makers responded. The results of that rating are on Table IV-7. The number of responses to each level on the Likert-scale (0-5) and comments by the decision-makers are shown in Appendix E.
<table>
<thead>
<tr>
<th>Possible Solution</th>
<th>Rank Order of Mean of Feasibility Score</th>
<th>Ranking of Importance of Barrier by Participants</th>
<th>Ranking of Importance of Barrier by Nonparticipants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public recognition given to employees who complete courses or programs in the form of certificates, letters of congratulations, etc.</td>
<td>4.13</td>
<td>Lack of company encouragement or reward</td>
<td>6</td>
</tr>
<tr>
<td>Formal encouragement by supervisors during performance appraisal sessions.</td>
<td>3.95</td>
<td>Lack of company encouragement or reward</td>
<td>6</td>
</tr>
<tr>
<td>Support shown from top management by establishing a tuition-assistance office that carries authority and influence.</td>
<td>3.82</td>
<td>Lack of company encouragement or reward</td>
<td>6</td>
</tr>
<tr>
<td>Possible Solution</td>
<td>Rank Order of Mean of Feasibility Score</td>
<td>Barrier</td>
<td>Ranking of Importance of Barrier by Participants</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------------------------------</td>
<td>---------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Work with colleges to establish short-term seminars, greater use of independent study, and courses offered on week-ends.</td>
<td>3.73</td>
<td>Not enough time</td>
<td>1</td>
</tr>
<tr>
<td>Develop linkage between the work-site and educational institutions to investigate ways to make schedules more flexible, i.e., scheduling classes on weekday evenings and on Saturdays.</td>
<td>3.43</td>
<td>Courses I want aren't scheduled when I can attend</td>
<td>5</td>
</tr>
<tr>
<td>Work with colleges to offer courses at work site, union halls, community centers, public libraries, and schools.</td>
<td>3.21</td>
<td>Inconvenient location of courses</td>
<td>10</td>
</tr>
<tr>
<td>Offer educational programs at the work site.</td>
<td>2.78</td>
<td>Courses I want aren't scheduled when I can attend</td>
<td>5</td>
</tr>
<tr>
<td>Offer courses at places and settings in which workers are comfortable.</td>
<td>2.78</td>
<td>Inconvenient location of courses</td>
<td>10</td>
</tr>
<tr>
<td>Possible Solution</td>
<td>Rank Order of Mean of Feasibility Score</td>
<td>Barrier</td>
<td>Ranking of Importance of Barrier by Participants</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td>--------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Offer courses at work site to ease some of the problems of travel.</td>
<td>2.73</td>
<td>Not enough time</td>
<td>1</td>
</tr>
<tr>
<td>Work with colleges to encourage the offering of short-term courses.</td>
<td>2.69</td>
<td>Amount of time required to complete program</td>
<td>7</td>
</tr>
<tr>
<td>Encourage greater use of independent study which may be more challenging and appropriate to the needs of adult learners.</td>
<td>2.60</td>
<td>Courses I want aren't scheduled when I can attend</td>
<td>5</td>
</tr>
<tr>
<td>Video cassettes, computer simulations and other innovative delivery systems used to offer educational programs to workers.</td>
<td>2.60</td>
<td>Not enough time</td>
<td>1</td>
</tr>
<tr>
<td>Offer courses at work site, adjust work schedules, use innovative media techniques.</td>
<td>2.56</td>
<td>Home responsibilities</td>
<td>3</td>
</tr>
<tr>
<td>Possible Solution</td>
<td>Rank Order of Mean of Feasibility Score</td>
<td>Barrier</td>
<td>Ranking of Importance of Barrier by Participants</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>-----------------------------------------</td>
<td>--------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Have prepayment rather than reimbursement as the primary mode of payment to workers or have tuition advances, scholarships, training funds, educational savings accounts or loans.</td>
<td>2.52</td>
<td>Cost, including books, learning materials, child care, transportation</td>
<td>2</td>
</tr>
<tr>
<td>As part of tuition-assistance, include cost of books and other learning materials.</td>
<td>2.52</td>
<td>Cost, including books, learning materials, child care, transportation</td>
<td>2</td>
</tr>
<tr>
<td>Adjustments of the workday or week such as flex-time, educational leave, and leave of absence.</td>
<td>2.43</td>
<td>Not enough time</td>
<td>1</td>
</tr>
<tr>
<td>Use the media to transmit courses, lectures, and reading materials. Have lectures taped so that students may view the tapes at times convenient to their schedules.</td>
<td>2.39</td>
<td>Courses I want aren't scheduled when I can attend</td>
<td>5</td>
</tr>
<tr>
<td>Possible Solution</td>
<td>Rank Order of Mean of Feasibility Score</td>
<td>Barrier</td>
<td>Ranking of Importance of Barrier by Participants</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>----------------------------------------</td>
<td>----------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>Allow sabbatical leaves.</td>
<td>2.17</td>
<td>Job responsibilities</td>
<td>4</td>
</tr>
<tr>
<td>Establish a release time policy.</td>
<td>1.82</td>
<td>Job responsibilities</td>
<td>4</td>
</tr>
<tr>
<td>Reimbursement of child care and transportation expenses.</td>
<td>0.39</td>
<td>Cost, including books, learning materials, child care, transportation</td>
<td>2</td>
</tr>
</tbody>
</table>
Discussion of Demographic Data

Demographic data were collected so comparisons could be made between the population of Chesapeake and Potomac Telephone Company and other populations as to their similarities, differences, and any generalizations that could be made from one population to the next. Appendix F shows the categories of data collected and the distribution within those categories. It summarizes the percentages of participants and nonparticipants within each category and also identifies the percentages of total company population for as many categories for which the company had data.

With respect to the demographic variable of sex, it can be seen that females constituted the larger percentage in both the participant and the nonparticipant groups in the older age categories. For both groups, the 25-34 year old category consisted of the most individuals. The 35-44 year old group percentages were virtually the same for both participants and nonparticipants. It may be noted again that there were considerably more persons in the older age bracket, i.e., 45-54 years and 55 and over, in the nonparticipant group than in the participant group. For racial composition, whites constitute the largest single racial category by percentage for both groups.

This study revealed that with regard to marital status, both the participant and nonparticipant groups matched identically on the rank ordering of marital categories. With regard to number of children in
the family, both the participant and nonparticipant groups matched identically on rank ordering of that category.

Little variation was exhibited with respect to group distribution and income level. For both participant and nonparticipant groups the $30,000-$39,999 and $20,000-$29,999 or middle income ranges were comprised of the most individuals and the less than $10,000 category contained the least. With respect to the upper income brackets, $40,000-$49,999 and $50,000 and over, there were approximately 4% more employees in these categories in the nonparticipant group than in the participant group.

Concerning employee status and the categories of management and nonmanagement, there was almost a 50-50 split for the participant group with 46 percent describing themselves as management and 49 percent classifying their positions as nonmanagement. In contrast, the nonparticipant group was split 35 percent management and 63 percent nonmanagement.

The study determined that for level of educational attainment, the largest category for participants consisted of those with two years of college. The category with the highest frequencies for the nonparticipant group was the 12 years or less of formal schooling. Thirty different fields were elicited in response to the category of specific fields of study.
Summary

This chapter described and reported the findings of this study according to the focus of the questions and the statistical procedures utilized. This chapter focused on: (a) motivational characteristics of participants; (b) barriers that had to be overcome by participants; (c) motivational characteristics of nonparticipants who consider future participation; (d) barriers to present participation for nonparticipants; (e) comparison of group responses for motivational characteristics and barriers to participation; (f) listing of the recommendations from the literature that matched the major barriers found in the study and the feasibility of implementing the recommendations as identified by a group of chief decision-makers of tuition-aid programs; and, (g) demographic characteristics of participants and nonparticipants.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RESEARCHER'S RECOMMENDATIONS

This chapter includes: a restatement of the purpose of the study; a restatement of the need for the study; comparisons of The Survey of Adult Learning with the present study; a summary of all major findings with recommendations; and, recommendations for future studies.

Restatement of the Purpose of the Study

The purpose of the study was to gather data about a specific population (employees of the Chesapeake and Potomac Telephone Company), identify motivational factors for participants, identify motivational factors for nonparticipants who considered being participants in the future, identify barriers to their participation in a tuition-aid program, identify barriers that had to be overcome by participants, compare motivations and barriers of participants and nonparticipants, and make recommendations for reducing the barriers in order to increase participation. To focus the efforts of this study, the following research questions were posed:

Research Question 1. What are the characteristics (motivations for participation and barriers that had to be overcome) of employees who do participate in a tuition-aid program?
Research Question 2. What are the characteristics (motivations for possible future participation and barriers to present participation) of employees who do not participate in a tuition-aid program?

Research Question 3. How do motivations and barriers of participants and nonparticipants of the tuition-aid program compare with one another?

Research Question 4. What policies and procedural recommendations from the literature match to the barriers found in this study and what is the feasibility of implementation of these policies and procedural recommendations?

Restatement of the Need for the Study

Because of the increasing number of large corporations offering tuition-aid programs to their employees, the large number of employees working in corporations, and the heavy financial investment corporations are making with reference to tuition-aid, there was a need to collect data and study the motivations for participation and barriers to participation of this population. The researcher found no other study that concentrated on employees of large corporations. No other study concentrated on developing a set of recommendations to increase the participation for a specific population. Tuition-aid has been the subject of few systematic studies. A study was needed to develop a
broader knowledge base about tuition-aid and its utilization.

Comparison of Participants and Nonparticipants in The Survey of Adult Learning and This Researcher's Study

Of the top five motivational factors for the participants in this researcher's study, three were also in the top five category for the participants in The Survey of Adult Learning. Those motivational factors were: "become better informed, personal enjoyment and enrichment," "help to advance in present workgroup," and, "meet the requirements of my employer, profession or someone in authority." "Become better informed, personal enjoyment and enrichment" was rated as the most important motivational factor for both groups. It can be speculated that for all participants, personal development is the paramount reason for continuing to take courses in a college or university. The reason associated with advancement in the workplace is next in importance.

The other two motivational factors rated in the top five for the participants in this researcher's study were also job related: "work toward a degree," and, "help learn a skill so I can go to another workgroup in the company." It can be speculated that the participants in this researcher's study were more motivated to learn new skills related to their jobs because of the emphasis on advancement in the culture of the company where the study was conducted. There were financial rewards given to those who received ratings of excellence during their
performance appraisals.

The other two motivational factors rated in the top five for the participants in The Survey of Adult Learning were more related to self-development. They were: "curiosity, learn for the sake of learning," and, "become a happier person." It can be speculated that participants from the general population are more concerned with self-development than participants in this researcher's study, because they are not under as much pressure to advance in their jobs as the participants in the company where this researcher's study was conducted.

Of the top five motivational factors for the nonparticipants in this researcher's study, two were also in the top five category for the nonparticipants in The Survey of Adult Learning. Those motivational factors were: "become better informed, personal enjoyment and enrichment" and "become a happier person." "Become better informed, personal enjoyment and enrichment" was rated as the most important motivational factor for both participants and nonparticipants in both studies. Again, it can be speculated that for all adults, personal development is the paramount reason for continuing to take courses or to consider taking courses in a college or university.

The other three motivational factors rated in the top five for the nonparticipants in this researcher's study were all job related: "meet the requirements of my employers, profession or someone in authority," "help to advance in present workgroup," and "help learn a new skill so I
can go to another workgroup in the company."

The other three motivational factors rated in the top five for the nonparticipants in The Survey of Adult Learning were more related to self-development. They were: "curiosity, learn for the sake of learning," "be a better parent, husband or wife" and "work toward certification or licensing." This was very similar when compared to the motivational factors for the participants in this researcher's study and The Survey of Adult Learning. It can again be speculated that nonparticipants from the general population are more concerned with self-development than participants in this researcher's study because they are not under as much pressure to advance in their jobs as the nonparticipants in the company where this researcher's study was conducted.

When comparing barriers, the findings of this researcher's study and The Survey of Adult Learning are very similar. Both studies conclude that for both nonparticipants and participants, the following are the most frequently identified barriers to participation in a tuition-aid program: "not enough time," "cost-including books, learning materials, child care, and, transportation," "home responsibilities," "job responsibilities," "lack of company encouragement or reward," "amount of time required to complete a program," "courses I want aren't scheduled when I can attend," and, "inconvenient location of courses." Cost and time considerations are overwhelmingly cited as the chief barriers for participants and nonparticipants in both studies.
Summary

Because a great deal of similarity was found between the participant and nonparticipant groups in this researcher's study and The Survey of Adult Learning relating to motivational factors and barriers, it was concluded that the populations within major corporations with tuition-aid programs are very similar to the general population. Therefore, whatever measures have been used to successfully reduce the barriers to participation in one corporation could be equally successful in other corporations. This premise lead to this researcher's Recommendation I, which is to review again what was referred to as "The Three Most Successful Programs" in Chapter II. Whatever parts of any of those programs that could be applied to a corporation's tuition-aid program should be considered. In the following summary are the common denominators in the three programs:

- Commitment to the worker education idea in an office that carries authority, influence, and adequate financing.

- Establishment of linkage programs between the company and educational institutions through an administrative liaison. The administrative liaison has a sufficient staff to design and administer programs that would require a good deal of on-going effort.

- Payment of full tuition and other educational expenses in advance to the employees.
• Unlimited tuition assistance to courses that are not strictly job related.

• Emphasis placed on the value to individuals, corporation and community alike of employees being given an opportunity to continue to develop their capacities and personalities as human beings.

• Constant publicizing of the program through announcements and supervisors' suggestions.

• Simplified enrollment procedures.

• Employee counseling and guidance service.

• Recognition and/or reward by the employer of employee performance in outside courses.

To formulate this researcher's Recommendation II, the twenty-three chief decision-makers were asked to rate recommendations found in the literature as at least feasible to implement. Table V-1 shows the most feasible possible solutions for implementation as rated by the chief decision makers matched with the highest ranking items of importance by the participants and nonparticipants. The most feasible possible solutions to implement were those which were rated at the 2.5 or above level on the Likert scale of 0-5. The items that were rated as most feasible should be considered for application in corporate tuition-aid programs.
Table V-4

The Most Significant Solutions Determined By Twenty-Three Chief Decision-Makers Matched to the Corresponding Barriers

<table>
<thead>
<tr>
<th>Possible Solution</th>
<th>Rank Order of Mean of Feasibility</th>
<th>Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public recognition given to employees who complete courses or programs in the form of certificates, letters of congratulations, etc.</td>
<td>4.13</td>
<td>Lack of company encouragement or reward</td>
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<td>Formal encouragement by supervisors during performance appraisal sessions.</td>
<td>3.95</td>
<td>Lack of company encouragement or reward</td>
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<tr>
<td>Support shown from top management by establishing a tuition-assistance office that carries authority and influence.</td>
<td>3.82</td>
<td>Lack of company encouragement or reward</td>
</tr>
<tr>
<td>Possible Solution</td>
<td>Rank Order of Mean of Feasibility</td>
<td>Barrier</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>-----------------------------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Work with colleges to establish short-term seminars, greater use of independent study, and courses offered on week-ends.</td>
<td>3.73</td>
<td>Not enough time</td>
</tr>
<tr>
<td>Develop linkage between the work-site and educational institutions to investigate ways to make schedules more flexible, i.e., scheduling classes on weekday evenings and on Saturdays.</td>
<td>3.43</td>
<td>Courses I want aren't scheduled when I can attend</td>
</tr>
<tr>
<td>Work with colleges to offer courses at work site, union halls, community centers, public libraries, and schools.</td>
<td>3.21</td>
<td>Inconvenient location of courses</td>
</tr>
<tr>
<td>Offer educational programs at the work site.</td>
<td>2.78</td>
<td>Courses I want aren't scheduled when I can attend</td>
</tr>
<tr>
<td>Offer courses at places and settings in which workers are comfortable.</td>
<td>2.78</td>
<td>Inconvenient location of courses</td>
</tr>
<tr>
<td>Possible Solution</td>
<td>Score</td>
<td>Barrier</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>-------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td>Offer courses at work site to ease some of the problems of travel.</td>
<td>2.73</td>
<td>Not enough time</td>
</tr>
<tr>
<td>Work with colleges to encourage the offering of short-term courses.</td>
<td>2.69</td>
<td>Amount of time required to complete program</td>
</tr>
<tr>
<td>Encourage greater use of independent study which may be more challenging and appropriate to the needs of adult learners.</td>
<td>2.60</td>
<td>Courses I want aren't scheduled when I can attend</td>
</tr>
<tr>
<td>Video cassettes, computer simulations and other innovative delivery systems used to offer educational programs to workers.</td>
<td>2.60</td>
<td>Not enough time</td>
</tr>
<tr>
<td>Offer courses at work site, adjust work schedules, use innovative media techniques.</td>
<td>2.56</td>
<td>Home responsibilities</td>
</tr>
<tr>
<td>Possible Solution</td>
<td>Score</td>
<td>Barrier</td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Have prepayment rather than reimbursement as the primary mode of payment to</td>
<td>2.52</td>
<td>Cost, including books, learning materials, child care, transportation.</td>
</tr>
<tr>
<td>workers or have tuition advances, scholarships, training funds, educational</td>
<td></td>
<td></td>
</tr>
<tr>
<td>savings accounts or loans.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As part of tuition-assistance, include cost of books and other learning</td>
<td>2.52</td>
<td>Cost, including books, learning materials, child care, transportation.</td>
</tr>
<tr>
<td>materials.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The 23 chief decision-makers were asked to comment on all possible solutions. Comments were obtained from half of them. It must be recognized that the comments obtained from the chief decision-makers were more than likely from those who had relatively high success resulting from their linkage with local colleges and universities. Nonetheless, if all the other chief-decision makers who did not make comments had such a linkage with local colleges and universities, they too may have made positive comments when responding to the possible solutions.

The 23 chief decision-makers of tuition-aid programs rated "public recognition given to employees who complete courses or programs in the form of certificates, letters of congratulations, etc." as the highest possible solution to implement. This solution equated with the barrier "lack of company encouragement or reward." This was interpreted by the respondents as a relatively low cost, easy to administer possible solution. Some of them said they already had such a system in operation and felt it was successful. For those who already had such a system, they did not express any problems and one respondent was especially positive about implementing this solution. He reported on his system of forwarding a copy of an employee's recently obtained diploma, along with a letter, to the employee's Assistant Vice-President informing him/her of the achievement for notation on the employee's personnel record. A special form is also sent to Employment and Personnel Services to be entered in the Management Selection System for career tracking and
placement considerations.

The next most feasible possible solution rated by the 23 chief decision-makers was "formal encouragement by supervisors during performance appraisal sessions." This also was interpreted by the respondents as a relatively low cost, easy to administer possible solution. One person suggested this solution could easily be written into the personnel rules/regulations for supervisors as a guideline during performance appraisals.

The next highest possible solution rated by the chief decision-makers was "support shown from top management by establishing a tuition-assistance office that carries authority and influence." This possible solution equated with the barrier "lack of company encouragement or reward" as did the previous two. Many of the respondents expressed that their tuition-aid offices already have such authority. Others expressed they could understand why such authority and influence was necessary in a tuition-aid office if a linkage is to be established with local colleges and universities and innovative plans are to be developed.

The 23 chief decision-makers of tuition-aid issues rated "work with colleges to establish short-term seminars, greater use of independent study, and courses offered on week-ends" as the next most feasible possible solution to implement. This solution equated with the barrier "not enough time." All respondents were positive to the working
relationship they had experienced with local colleges by stating that most institutions offer accelerated seminars, correspondence courses and week-end courses.

The next most feasible possible solution rated by the chief decision-makers was "develop linkage between the work-site and educational institutions to investigate ways to make schedules more flexible, i.e., scheduling classes on weekday evenings and on Saturdays." The majority of responses from the chief decision-makers related to their experience that most colleges in their geographic area had special week-end college programs which were very popular with their employees.

The next highest possible solution rated by the chief decision-makers was "work with colleges to offer courses at work site, union halls, community centers, public libraries, and schools." Again, most comments from the chief decision-makers expressed that they already had many colleges and universities within their geographic areas from which many of their employees took advantage.

The chief decision-makers rated as the next two possible solutions to be "offer educational programs at the work site" and "offer courses at places and settings in which workers are comfortable". But most chief decision-makers recommended that a linkage be developed with a local college or university as opposed to offering courses at the work site. Most expressed the opinion that their work sites tended not be as
suitable for conducting academic training as local colleges or universities.

The next highest solution of "offer courses at work site to ease some of the problems of travel" relates to the previous comments. Most respondents expressed a desire to create a linkage with local colleges or universities so they could be creative about scheduling classes, etc. as opposed to offering courses at the work site.

For the next highest possible solution of "work with colleges to encourage the offering of short-term courses," most comments related to positive experiences in working with colleges that offer short-term courses. An example of this was a special management program sited where an employee was able to complete a BA in 2 years.

The possible solution of "encourage greater use of independent study which may be more challenging and appropriate to the needs of adult learners" was the next highest ranked possible solution. However, the decision-makers had many reservations according to their comments that the programs available are "suspect" as to their "academic rigor".

The next possible solution of "offer video cassettes, computer simulations and other innovative delivery systems used to offer educational programs to workers" drew the comments that there is already extensive use of self-paced material being used for training purposes. Therefore, employees are accustomed to such delivery systems, but the success rate has not been high with regard to the delivery of college
courses. The negative comments were that college courses were unsuccessful due to low attendance and high costs.

"Offer courses at work site, adjust work schedules, use innovative media techniques" was rated as the next highest possible solution but most chief decision-makers who commented suggested that they relied on local colleges and universities to take the initiative to assist in establishing such programs.

The next highest possible solution was "have prepayment rather than reimbursement as the primary mode of payment to workers or have tuition advances, scholarships, training funds, educational savings accounts or loans." Many of the respondents expressed a negative opinion on implementing this solution because of what they perceived could be an administrative problem.

The last possible solution that rated above a 2.5 on a Likert scale was "part of tuition-assistance includes cost of books and other learning materials." Most respondents expressed a negative opinion on this because of a present cost sensitive business setting.

Therefore, Recommendation II is to review the possible solutions rated by the 23 chief decision-makers of tuition-aid programs in the corporation where the study was conducted. Review their priority ranking of possible solutions and comments, and determine which apply best to a particular corporation's tuition-aid program.
In order to implement these two recommendations, a position of liaison administrator to act as the linkage agent between educational institutions and the company must be developed. This became this researcher's Recommendation III. The worker education idea depends for its effectiveness on full and continuing commitment to it in an office that carries authority, influence, and adequate financing. The perhaps even more critical corollary is that this commitment becomes meaningful only as it is carried to the point of establishing this position of liaison administrator. This liaison administrator must have a sufficient staff to design and administer a program that requires a good deal of on-going effort.

The final recommendation, Recommendation IV, is to review the company tuition-aid policy and re-evaluate the professed commitment to the goals of that policy. Especially review the policy of having employees personally prepay for tuition expenses and receive reimbursement after the course is completed. Compare this to the policies of the three most successful companies that pay for all tuition expenses and material costs before the courses begin for the employees. In other words, the three most successful tuition-aid programs have a policy of prepayment rather than reimbursement. Cost was cited by participants and nonparticipants as an overwhelming barrier to participation. The chief decision-makers rated prepayment and paying for material costs as the two lowest items on the feasibility rating scale. Therefore, if the company policy subscribes to a tuition-aid
program, the chief decision-makers within those companies must re-evaluate their professed commitment and establish a new prepayment and materials cost policy.

The four final recommendations are the following:

Recommendation I - Review "The Three Most Successful Programs" outlined in this study and determine what parts of any of those programs could be applied to a particular corporation's tuition-aid program.

Recommendation II - Review the possible solutions rated by the 23 chief decision-makers of tuition-aid programs in the corporation where the study was conducted. Review their priority ranking of possible solutions and comments, and determine which apply best to a particular corporation's tuition-aid program.

Recommendation III - Establish a position of liaison administrator to act as a linkage agent between educational institutions and corporations.

Recommendation IV - Review the company tuition-aid policy and re-evaluate the professed commitment to the goals of that policy. Especially re-evaluate the policy of reimbursement as opposed to pre-payment of tuition costs and payment of materials costs.

It is recognized that there is a lack of understanding between the higher education system and industry. The educational establishment, in
large part, is uninformed about the training needs of industry and the
learning needs of adult workers. While some higher education
institutions have developed programs and methods to respond to the needs
of workers and industry, many others have tried to fit this new student
population into the existing system, which is geared to a full-time,
younger student body. For the worker, as pointed out in this study, new
programs need to be developed, and the scheduling and location of
courses need to be altered. Innovative part-time programs need to be
made available to enable workers to pursue education while remaining
full-time in the labor force. The solution to many of these problems
would be found through an improved linkage system which could assist
educational institutions in responding to the needs of workers.

What emerges clearly is the point that if employee education is
said to be taken seriously and is part of a company policy that has
established a tuition-aid program, there are ways to eliminate some of
the major barriers to participation by employees. Management in
companies must take a hard look at their professed belief in the
development of the employee, as balanced against their present policies
that appear to be barriers to participation in tuition-aid programs and
the further career and human development of their employees.

Future Study

This study was a beginning step in the investigation of the complex
issue of motivation for participation in tuition-aid programs and
barriers to participation for employees. Several recommendations for future research efforts can be derived from this study. Specific recommendations follow:

1. Do such investments of employer funds and employee time enhance the returns, values, and satisfactions on both sides of the employment equation?

2. What problems arise if a company trains employees for career advancement when opportunities are limited?

3. How replicable are all or parts of the three successful programs cited in this study?

4. Did any of the companies in this study change any parts of their tuition-aid program, and, if so, what effect did it have?

This study investigated the tuition-aid programs. The beginning insights provided by this research can stimulate changes in the tuition-aid policies and the training and education of future employees.


Peterson, Richard E. Personal Communications, June 17, 1982.


APPENDIX A

Survey of Adult Learning
Survey of Adult Learning*

Section I

In this section, we want to find out about your interest in learning new things.

1. Is there anything in particular that you'd like to know more about, or would like to learn how to do better? If yes, circle 1; if no, circle 2.

   1. Yes - go on to Question 2
   2. No - please skip to Section II, Question 14

2. Listed below is a wide variety of subjects and skills which people might wish to study or learn. If you had your choice, and didn't have to worry about cost or other responsibilities, which ones interest you enough to spend a fair amount of time on them? Circle the numbers next to all the subjects or areas on this page and the next which you would be interested in learning.

   AREAS OF LEARNING

---

1. Agriculture, farming
2. Architecture
3. Basic education, such as reading, basic math, writing
4. Biological sciences, such as biology, botany
5. Business skills, such as typing, accounting, bookkeeping
6. Child development, such as parenthood, child care
7. Citizenship, Americanization
8. Commercial art, such as design, fashion
9. Community problems and organizations
10. Computer science, such as data processing, programming
11. Consumer education, such as buying, credit
12. Cosmetology, such as beauticians
13. Crafts, such as weaving, pottery, woodworking
14. Creative writing
15. Education, teacher training
16. Engineering
17. English language training
18. Environmental studies, such as ecology, conservation
19. Fine and visual arts, such as art, photography, filmmaking
20. Flight training
21. Gardening, flower arranging
22. Great Books
23. Home repairs
24. Humanities, such as literature, philosophy, art/music appreciation
25. Industrial trades, such as welding, carpentry, electronics
26. Investment, such as money, finance
27. Journalism
28. Languages, such as French, German, Chinese
29. Law
30. Management skills, such as business administration, hotel management
31. Medical technology, such as x-ray technician, dental assistant
32. Medicine, dentistry
33. Nursing
34. Occult sciences, such as astrology, tarot
35. Performing arts, such as dance, music, drama
36. Personal psychology, such as encounter groups, psychology of everyday life
37. Physical fitness and self defense, such as exercises, karate
38. Physical sciences, such as physics, math, chemistry, astronomy
39. Public affairs, such as current events, world problems
40. Public speaking
41. Religious studies, such as Bible, yoga, meditation
42. Safety, such as first aid, water safety
43. Salesmanship
44. Sewing, cooking
45. Social sciences, such as ethnic studies, economics,
46. Sports and games, such as golf, bridge, swimming, boating
47. Technical skills, such as auto mechanics, t.v. repair, drafting
48. Travel, living in foreign country
49. Other, please specify ________________

3. Of the areas listed in question 2, which would you most like to study or learn? Please write in the names or numbers of your first, second, and third choices in the spaces below.

First Choice ____________________________
Second Choice __________________________
Third Choice ____________________________

AREAS OF LEARNING - FIRST CHOICE

1. Agriculture, farming
2. Architecture
3. Basic education, such as reading, basic math, writing
4. Biological sciences, such as biology, botany
5. Business skills, such as typing, accounting, bookkeeping
6. Child development, such as parenthood, child care
7. Citizenship, Americanization
8. Commercial art, such as design, fashion
9. Community problems and organizations
10. Computer science, such as data processing, programming
11. Consumer education, such as buying, credit
12. Cosmetology, such as beauticians
13. Crafts, such as weaving, pottery, woodworking
14. Creative writing
15. Education, teacher training
16. Engineering
17. English language training
18. Environmental studies, such as ecology, conservation
19. Fine and visual arts, such as art, photography, filmmaking
20. Flight training
21. Gardening, flower arranging
22. Great Books
23. Home repairs
24. Humanities, such as literature, philosophy, art/music appreciation
25. Industrial trades, such as welding, carpentry, electronics
26. Investment, such as money, finance
27. Journalism
28. Languages, such as French, German, Chinese
29. Law
30. Management skills, such as business administration, hotel management
31. Medical technology, such as x-ray technician, dental assistant
32. Medicine, dentistry
33. Nursing
34. Occult sciences, such as astrology, tarot
35. Performing arts, such as dance, music, drama
36. Personal psychology, such as encounter groups, psychology of everyday life
37. Physical fitness and self defense, such as exercises, karate
38. Physical sciences, such as physics, math, chemistry, astronomy
39. Public affairs, such as current events, world problems
40. Public speaking
41. Religious studies, such as Bible, yoga, meditation
42. Safety, such as first aid, water safety
43. Salesmanship
44. Sewing, cooking
45. Social sciences, such as ethnic studies, economics, government
46. Sports and games, such as golf, bridge, swimming, boating
47. Technical skills, such as auto mechanics, t.v. repair, drafting
48. Travel, living in foreign country
49. Other, please specify ________________

Please answer Questions 4 through 10 by thinking about the area you listed first in Question 3.

4. Would you like to get credit toward a degree or some other certificate of satisfactory completion for learning this area?
Circle one of the following numbers.

1. No, doesn't matter, don't care
2. Certificate of satisfactory completion
3. Credit toward high school diploma
4. Credit toward skill certificate or license
5. Credit toward a two-year college degree (AA)
6. Credit toward a four-year college degree (BA)
7. Credit toward an advanced degree (MA, PhD)
8. Other, describe ________________

5. There are many ways in which people can take a course of study. How would you want to learn this area if you could do it any way you wanted? Circle the one which best describes how you would like to study this field.

1. Lectures or classes
2. Short term conferences, institutes or workshops
3. Individual lessons from a private teacher
4. Discussion groups, informal book club or study group
5. Travel-study program
6. On-the-job training, internship
7. Correspondence course
8. T.V. or video cassettes
9. Radio, records, or audio cassettes
10. Work on a group action project
11. Study on my own, no formal instruction

12. Other, please specify ____________________
6. There are many places people can go to study or learn. Where would you want to go to learn the area you chose first in Question 3? Circle one choice.

1. Public high school, day or evening
2. Public two-year college or technical institute
3. Private vocational, trade or business school
4. Four-year college or university
5. Graduate school
6. Community run "free school"
7. Business or industrial site
8. Employer
9. Religious institution or group
10. Community or social organization, such as YMCA
11. Correspondence school
12. Government agency (federal, state or local)
13. Library or other cultural institution, such as a museum
14. Fine or performing arts or crafts studio
15. Recreational or sports group
16. Individual instructor
17. Home
18. Other, describe ________________

7. How often would you want to attend classes, training sessions, or study on your own? Circle only one.
1. One evening a week
2. Two or more evenings a week
3. One morning or afternoon a week
4. Two or more mornings or afternoons a week
5. One full day a week
6. Two or more full days a week
7. One weekend day a week
8. Both weekend days a week
9. One or two evenings a week plus occasional weekends
10. One or two evenings a week plus one or two weeks during the summer
11. Two weeks to a month during the summer
12. Other, specify _______________________

8. How long would you want to continue your training or study in this area? Circle only one.

1. Less than one month
2. One to three months
3. Four to six months
4. Seven to nine months
5. Nine months to a year
6. One to two years
7. More than two years
9. Still thinking of your first choice in Question 3, how important is each of the following reasons to you for wanting to learn the area? Respond in columns A, B, or C for each reason listed below. Please circle one number in each row.

<table>
<thead>
<tr>
<th>Reason</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help get a new job</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Help to advance in present job</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Become better informed, personal enjoyment and enrichment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meet new people</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meet requirements for getting into an educational program</td>
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<td></td>
<td></td>
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<tr>
<td>Be a better parent, husband or wife</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Get away from the routine of daily living</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work toward certification or licensing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Better understand community</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
problems
Be better able to serve my church
Meet the requirements of my
   employer, profession or
   someone in authority
Become a more effective citizen
Work toward a degree
Learn more about my own
   background and culture
Feel a sense of belonging
Curiosity, learn for the sake of
   learning
Become a happier person
Work toward solutions of problems
   such as discrimination and
   pollution
Get away from personal problems
Improve my spiritual well-being
Other ____________________
10. If there were a charge for this course or activity, how much would you be willing to pay?

1. Nothing
2. Less than $50
3. Between $50 and $100
4. $100 to $200
5. More than $200

11. Many things stop people from taking a course of study or learning a skill. Circle all those listed below that you feel are important in keeping you from learning what you want to learn.

1. Cost, including books, learning materials, child care, transportation, as well as tuition
2. Not enough time
3. Amount of time required to complete program
4. No way to get credit for a degree
5. Strict attendance requirements
6. Don't know what I'd like to learn or what it would lead to
7. No place to study or practice
8. No child care
9. Courses I want aren't scheduled when I can attend
10. Don't want to go to school full-time
11. No information about places or people offering what I want
12. No transportation
13. Too much red tape in getting enrolled
14. Hesitate to seem too ambitious
15. Friends or family don't like the idea
16. Home responsibilities
17. Job responsibilities
18. Not enough energy and stamina
19. Afraid that I'm too old to begin
20. Low grades in the past, not confident of my ability
21. Don't meet requirements to begin program
22. Courses I want don't seem to be available
23. Don't enjoy studying
24. Tired of going to school, tired of classrooms
25. Other, describe __________________

12. If you were to complete the area of learning you listed first in Question 3, would you want to have any of the agencies or persons listed below informed about you completion of or achievement in this activity? Circle as many as you want to know about your study or training.

1. One or more universities, colleges, or other schools
2. My employer
3. Possible employers
4. One or more government agencies
5. Award granting agencies for scholarships, grants
6. A licensing agency
7. Certain teachers or professors
8. Certain people in my community
9. My family
10. My friends
11. Myself
12. Other, please describe ________________
13. People often need information and advice before beginning a course of study or during a course. Some people find it most helpful to talk with professional counselors at a school or college or at a community, government or social agency. Others would rather talk with employers, friends or members of their family. With whom, if anybody, would you want to discuss each one of the matters listed below? Respond in columns A, B, C, D, or E for each kind of problem. Please circle one number in each row.

<table>
<thead>
<tr>
<th>Availability of educational programs</th>
<th>Paying for studies</th>
<th>Enrollment procedures</th>
<th>Planning a degree program</th>
<th>Choosing a course</th>
<th>Improving study habits or techniques</th>
<th>Employment possibilities as a result of training</th>
<th>Uses of training or study</th>
<th>Other, please describe</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Counselor at a school or college</td>
<td>B Counselor at social, government or community agency</td>
<td>C Friends or employer or family</td>
<td>D Nobody</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section II

Now we are interested in your actual education experiences.

14. Are you enrolled in school or college at the present time?

1. Yes, full-time
2. Yes, part-time (half-time or less)
3. No

15. Circle the one item below that shows the amount of formal education you have had.

1. Eight years of school or less
2. One to three years of high school
3. High school diploma
4. Business or trade school
5. One year of college
6. Two years of college
7. Two-year college degree
8. Three years of college
9. Four-year college degree
10. Some graduate or professionals school
11. First postgraduate degree (law degree, MA, MSW)
12. Doctorate degree (PhD, MD, EdD)

16. If you had the opportunity, what educational degrees or certificates would you like to get in the next ten years? Circle
all those you want.

1. None
2. High school diploma
3. Certificate or license needed for an occupation, such as electrician, beautician, real estate salesman
4. Two-year college degree (AA)
5. Four-year college degree (BA)
6. Master's degree (MA)
7. Doctoral degree (PhD, MD, etc.)
8. Other, please specify ________________

17. Within the past 12 months, have you received (or are you receiving) instruction in any of the following subjects or skills? Please include evening classes, extension courses, correspondence courses, on-the-job training, private lessons, independent study, T.V. courses or anything else like that. Please do not include subjects you have studied as a full-time student. Circle all that apply.

1. Adult basic education, such as reading, basic math
2. Citizenship, Americanization
3. Agriculture, farming
4. High school level courses
5. College level courses
6. Graduate level courses
7. Technical and vocational skills, such as typing, auto mechanics
8. Managerial skills, such as hotel management, business administration
9. Professional skills, such as law, teaching, medicine
10. Civics and public affairs, such as consumer education, ecology
11. Religion, such as Bible study, ethics, meditation
12. Safety, such as first aid, water safety
13. Home and family living, such as home repairs, gardening, child care
14. Personal development, such as personality, physical fitness
15. Hobbies and handicrafts, such as photography, weaving, music
16. Sports and recreation, such as bridge, boating, golf
17. Other, describe ____________________

If you circled one or more of the areas in Question 17, please answer Questions 18 through 25; if you circled none of the areas, please skip to Section III, Question 26.

18. Consider the area circled in Question 17 on which you spent the most time in the past 12 months. How was this course or activity conducted? Circle the one which best describes how you learned this area.

1. Lectures or classes
2. Short term conferences, institutes or workshops
3. Individual lessons from a private teacher  
4. Discussion groups, book club or study group  
5. Travel-study program  
6. On-the-job training, internship  
7. Correspondence course  
8. T.V. or video cassettes  
9. Records or audio cassettes  
10. Work on a group action project  
11. Study on my own, no formal instruction  
12. Other, please specify ________________  

19. Where did you go for this course or activity? Circle only one.  

1. Public high school, day or evening  
2. Public two-year college or technical institute  
3. Private vocational, trade or business school  
4. Four-year college or university  
5. Graduate school  
6. Community run "free school"  
7. Business or industrial site  
8. Employer  
9. Religious institution or group  
10. Community or social organization, such as YMCA  
11. Correspondence school  
12. Government agency (federal, state or local)  
13. Library or other cultural institution, such as museum
14. Fine or performing arts or crafts studio
15. Recreational or sports group
16. Individual instructor
17. Home
18. Other, please describe ________________

20. What kind of credit did you get (or do you expect to get) from this course or activity?

1. No formal credit
2. Certificate of satisfactory completion
3. Credit toward high school diploma
4. Credit toward a skill certificate or license
5. Credit toward a two-year college degree (AA)
6. Credit toward a four-year college degree (BA, BS)
7. Credit toward an advanced degree (MA, PhD, etc.)
8. Other, please specify ________________

21. How many hours a week on the average did you devote to this course or activity?

1. Less than two hours a week
2. Two to four hours a week
3. Five or more hours a week

22. How long did this course or activity run?

1. Less than one month
2. One to three months
3. Four to six months
4. Seven to nine months
5. More than nine months

23. Did you complete this course or activity?

1. Yes
2. No, still taking course
3. No, stopped taking course

24. Who paid for this course or activity?

1. Course was free
2. Myself or family
3. Employer
4. Other, describe

25. Why did you take this course or activity? Circle all that apply.

1. Help get a new job
2. Help to advance in present job
3. Become better informed, personal enjoyment and enrichment
4. Meet new people
5. Meet requirements for getting into an educational program
6. Be a better parent, husband or wife
7. Get away from the routine of daily living
8. Work toward certification or licensing
9. Better understand community problems
10. Be better able to serve my church
11. Meet the requirements of my employer, profession or someone in authority
12. Become a more effective citizen
13. Work toward a degree
14. Learn more about my own background and culture
15. Feel a sense of belonging
16. Curiosity, learn for the sake of learning
17. Become a happier person
18. Work toward solution of problems, such as discrimination or pollution
19. Get away from personal problems
20. Improve my spiritual well-being
21. Other, please describe ____________________
BACKGROUND INFORMATION

26. Here are some reasons people have given for not taking more courses or instruction. Circle all those reasons that apply to you.

1. I'd be interested in taking some type of course, but there's nothing like that available around here
2. The courses I've heard about sound pretty dull
3. I can learn all I need to know without taking courses to do it
4. I'm much too busy with other things right now, and just wouldn't have the time
5. I'm interested in a lot of things, but I really don't enjoy studying
6. Right now, I just couldn't afford it
7. I've never thought about taking a special course
8. Other, please describe __________________

27. Indicate your sex.

1. Female
2. Male
28. Your age.

1. Under 25
2. 25-29
3. 30-34
4. 35-44
5. 45-54
6. 55 and over

29. Your race

1. White
2. Black, Negro
3. Latin-American, Chicano, Puerto Rican
4. Asian, Oriental
5. Native American, American Indian
6. Other, please specify ______________

30. What is your marital status?

1. Single
2. Married
3. Widowed
4. Divorced, separated

31. How many children, 17 years or younger, do you have?

1. One
2. Two  
3. Three  
4. Four  
5. Five or more  
6. None  

32. Approximately what was the combined income of you and your spouse (if married) last year (before taxes)?  
   1. Less than $3,000  
   2. $3,000 to $4,999  
   3. $5,000 to $6,999  
   4. $7,000 to $7,999  
   5. $8,000 to $9,999  
   6. $10,000 to $14,999  
   7. $15,000 to $24,999  
   8. $25,000 and over  

33. Did you have any paid job as of May 15, 1972?  
   1. Yes, a full-time job  
   2. Yes, a part-time job  
   3. No  

34. Please write in below a short description of the kind of work you usually do (for example: electrical engineer, stock clerk, typist, student, homemaker).
These descriptions were coded according to the following Bureau of Census classifications:

1. Housewife
2. Unskilled worker or laborer
3. Semiskilled worker
4. Service worker
5. Skilled worker or craftsman
6. Sales or clerical worker
7. Owner, manager, or partner of small business; lower-level administrator
8. Profession requiring a bachelor's degree
9. Owner or high-level executive of a large business or governmental agency
10. Profession requiring an advanced degree
11. No usual occupation
12. Student
APPENDIX B

Cover Letter and Questionnaire to Participants and Nonparticipants of the Company's Tuition-Aid Program
To: Participants and Non-Participants of the Company's Tuition-Aid Program

From: Training and Development Department

Re: Tuition-Aid Survey

HAVE A CUP OF TEA ON ME! While you have your tea, sit back, enjoy, and take 10-15 minutes to fill out the enclosed survey.

The survey is designed to help gather information about the nature and scope of tuition-aid programs. The information which you provide will help us get a picture of the existing options and ways in which current programs can be improved.

Your responses will be confidential. On the basis of the information which you and others provide, we will be able to prepare a summary report with no identification of respondents.

For additional information about this survey you may contact Beverly McQuigg at 301-585-0438. We welcome your comments and will be glad to answer any questions you may have.

Please mail the completed survey before Feb. 22 to:

Beverly McQuigg
Training and Development
Silver Spring, Md.

Thank you for your participation.
Questionnaire for Non-Participants of Tuition-Aid Program Within Past Year.

I. In the future, if you were to take a course through the company tuition-aid program, what would be your reason?

Please circle one letter for each reason listed below.

<table>
<thead>
<tr>
<th>Reason</th>
<th>Not Important</th>
<th>Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Help learn a new skill so I can go to another workgroup in the company</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>2. Help to advance in present workgroup</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>3. Become better informed, personal enjoyment and enrichment</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>4. Meet new people</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>5. Meet requirements for getting into an educational program</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>6. Be a better parent, husband or wife</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>7. Get away from the routine of daily living</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>8. Work toward certification or licensing</td>
<td>A</td>
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<tr>
<td>9. Better understand community problems</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>10. Be better able to serve my church</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Not Important</td>
<td>Important</td>
<td>Very Important</td>
</tr>
<tr>
<td>---</td>
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<td>-----------</td>
<td>----------------</td>
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<td>11. Meet the requirements of my employer, profession or someone in authority</td>
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<td>B</td>
<td>C</td>
</tr>
<tr>
<td>13. Work toward a degree</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>14. Learn more about my own background and culture</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>15. Feel a sense of belonging</td>
<td>A</td>
<td>B</td>
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</tr>
<tr>
<td>16. Curiosity, learn for the sake of learning</td>
<td>A</td>
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<td>C</td>
</tr>
<tr>
<td>17. Become a happier person</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>18. Work toward solutions of problems such as discrimination and pollution</td>
<td>A</td>
<td>B</td>
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<tr>
<td>19. Get away from personal problems</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>20. Improve my spiritual well-being</td>
<td>A</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>21. Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
II. Many things stop people from taking a course of study or learning a skill. Circle all those listed below that you feel are important in keeping you from participating in the tuition-aid program. Place a second circle around the three most significant barriers.

1. Cost, including books, learning materials, child care, transportation
2. Not enough time
3. Amount of time required to complete program
4. No way to get credit for a degree
5. Strict attendance requirements
6. Don't know what I'd like to learn or what it would lead to
7. No place to study or practice
8. No child care
9. Courses I want aren't scheduled when I can attend
10. No information about places or people offering what I want
11. No transportation
12. Too much red tape in getting enrolled
13. Hesitate to seem too ambitious
14. Friends or family don't like the idea
15. Home responsibilities
16. Job responsibilities
17. Not enough energy and stamina
18. Afraid that I'm too old to begin
19. Low grades in the past, not confident of my ability
20. Don't meet requirements to begin program
21. Courses I want don't seem to be available
22. Don't enjoy studying
23. Tired of going to school, tired of classrooms
24. Lack of information about tuition-aid program
25. Lack of counseling and educational advisement
26. Lack of company encouragement or reward
27. Inflexibility of the work schedule
28. Inconvenient location of courses
29. Lack of relevant courses
30. Lack of information on courses
31. Too much red tape in tuition-aid plan
32. Lack of confidence in my ability
33. Lack of interest
34. Other, describe ____________________
III. Indicate your sex.
   1. Female
   2. Male

IV. Your age.
   1. Under 25
   2. 25-34
   3. 35-44
   4. 45-54
   5. 55 and over

V. Your racial/ethnic group.
   1. White
   2. Black
   3. Latin-American, Chicano, Puerto Rican
   4. Asian, Oriental
   5. Native American, American Indian
   6. Other, please specify

VI. What is your marital status?
   1. Single
   2. Married
   3. Widowed
   4. Divorced, separated

VII. How many children are presiding in your household?
   1. None
   2. One
   3. Two
   4. Three
   5. Four or more

VIII. Approximately what was the combined income of you
      and your spouse (if married) last year?
      1. Less than $10,000
      2. $10,000 to $19,999
      3. $20,000 to $29,999
      4. $30,000 to $39,999
      5. $40,000 to $49,999
      6. More than $50,000

IX. Are you management or non-management?
   1. Management
   2. Non-Management

X. How much formal schooling have you completed?
   1. Twelve years of school or less
   2. One year of college
   3. Two years of college
   4. Four-year college degree
   5. Some graduate or professional school
To: Participants and Non-Participants of the Company's Tuition-Aid Program  
From: Training and Development Department  
Re: Tuition-Aid Survey

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For additional information about this survey you may contact Beverly McQuigg at 301-585-0438. We welcome your comments and will be glad to answer any questions you may have.

Please mail the completed survey before Feb. 22 to:

Beverly McQuigg  
Training and Development  
Silver Spring, Md.

Thank you for your participation.
Questionnaire for Participants of Tuition-Aid Program Within Past Year.

I. Why did you take a course through the company tuition-aid program?

   Please circle one letter for each reason listed below.

<table>
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<tr>
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X. How much formal schooling have you completed?
1. Twelve years of school or less
2. One year of college
3. Two years of college
4. Four-year college degree
5. Some graduate or professional school

XI. If you were in a degree program, what was the degree you were working toward and in what field?
II. Many things stop people from taking a course of study or learning a skill. Circle all those barriers listed below that you had to overcome. Place a second circle around the three most significant barriers.

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2. Not enough time
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<tr>
<td>21. Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX C

Permission Letter to Use Questionnaire from Survey of Adult Learning
Ms. Beverly McQuigg
Cranbury, New Jersey 08520

Dear Ms. McQuigg:

In response to your telephone request of July 27, Educational Testing Service is pleased to grant nonexclusive and royalty-free permission for your use of the Survey of Adult Learning as part of your dissertation research. I understand you will be doing the study at Virginia Polytechnic Institute. Please place the copyright notice (as found on the original) on each reproduced copy, followed by the statement "Reproduced by permission."

In your study, please acknowledge ETS as the source of the instrument.

This permission will terminate on September 30, 1984.

Sincerely,

Helen C. Weidenmiller
Rights & Permissions Administrator

HCW:kc
APPENDIX D

Sample Cover Letter to Decision-Makers, Attachment A of Barriers and Possible Solutions to Eliminating the Barriers
Dear Mr. Hartwell:

A study is being conducted to determine what motivates employees in the Bell System to participate in the tuition-assistance program and what are the barriers to that participation. You were identified in your company as the person who would make any decisions as to changes in policies or procedures to the tuition-assistance plan if increased participation were deemed to be desirable. You were asked to complete a questionnaire in September, 1982 with regard to this study and your response was greatly appreciated. Because of further data collection, an additional eight barriers have been identified. To update the study, you are being asked to respond to a final questionnaire as part of this study. Enclosed is the eight item questionnaire I am asking you to complete with reference to rating the desirability or feasibility of eliminating any of the barriers. The barriers were identified through surveying over 400 employees in one of the operating companies.

As part of the study, a review of literature pertaining to tuition-assistance programs was conducted. In a condensed fashion this is the information that was found for your information. Ninety-two percent of the Fortune 500 companies said they benefit from tuition-assistance plans for the following reasons: increased employee concern and involvement in their own self development because of the company's concern and support; improved organizational climates favorable to improvement; and innovation and improved quality of work performance because of better employee knowledge and skills gained through off-the-job courses.
But, as Peter Drucker, a noted management expert pointed out, "Left alone and without a plan for development and without top management's support and encouragement, a company's human resources can stagnate and become obsolete." The national average for participation in tuition-assistance programs is 4-5%, which is a very low percentage.

The most common barriers to participation identified by the operating company where the initial study was conducted are listed in Attachment A. Along with that listing of common barriers to participation are solutions for eliminating those barriers that have been suggested by corporate administrators, educators and researchers. Please read Attachment A and indicate on Attachment B the feasibility of implementing each suggested solution. In the comment section, briefly describe why you rated the barrier the way you did. Also, feel free to add any general comments. Your responses will be completely anonymous, so your name will not appear in the final report.

A composite of the survey rating from all operating companies will be sent to you. Hopefully, this information will be of use to you in making a decision about increasing participation in your tuition-assistance program. Data from this survey is needed immediately. I would appreciate your rapid response.

Sincerely,

Beverly McQuigg
Member of Technical Staff
<table>
<thead>
<tr>
<th>Barriers</th>
<th>Possible Solutions to Eliminating the Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not enough time</td>
<td>Offer courses at work site to ease some of the problems of traveling. (Shore, 1979)</td>
</tr>
<tr>
<td></td>
<td>Adjustments of the work day or week such as flexitime, educational leave, and leave of absence. (Shore, 1979)</td>
</tr>
<tr>
<td></td>
<td>Video cassettes, computer simulations and other innovative delivery systems used to offer educational programs to workers. (Charner, 1978)</td>
</tr>
<tr>
<td></td>
<td>Work with colleges to establish short-term seminars, greater use of independent study, and courses offered on week-ends. (Peterson, 1979)</td>
</tr>
<tr>
<td>Cost, including books, learning materials, child care, transportation</td>
<td>Have prepayment rather than reimbursement as the primary mode of payment to workers or have tuition advances, scholarships, training funds, educational savings accounts or loans. (Charner, 1980)</td>
</tr>
<tr>
<td></td>
<td>As part of tuition-assistance, include cost of books and other learning materials. (Charner, 1980)</td>
</tr>
<tr>
<td></td>
<td>Reimbursement of child care and transportation expenses. (Shore, 1979)</td>
</tr>
<tr>
<td>Job responsibilities</td>
<td>Establish a release time policy. (Shore, 1979)</td>
</tr>
<tr>
<td></td>
<td>Allow sabbatical leaves. (Shore, 1979)</td>
</tr>
</tbody>
</table>

* This attachment has source references. The attachment which was part of the questionnaire did not have the references.
<table>
<thead>
<tr>
<th>Barriers</th>
<th>Possible Solutions to Eliminating the Barriers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of company encouragement or reward</td>
<td>Formal encouragement given by supervisors during performance appraisal sessions. (Watson, 1975)</td>
</tr>
<tr>
<td></td>
<td>Public recognition given to employees who complete courses or programs in the form of certificates, letters of congratulations, etc. (Shore, 1979)</td>
</tr>
<tr>
<td></td>
<td>Support shown from top management by establishing a tuition-assistance office that carries authority and influence. (Wirtz, 1979)</td>
</tr>
<tr>
<td>Inconvenient location of courses</td>
<td>Work with colleges to offer courses at work site, union halls, community centers, public libraries, and schools. (Shore, 1979)</td>
</tr>
<tr>
<td></td>
<td>Offer courses at places and settings in which workers are comfortable. (Barton, 1981)</td>
</tr>
<tr>
<td>Amount of time required to complete program</td>
<td>Work with colleges to encourage the offering of short-term courses. (Charner, 1980)</td>
</tr>
<tr>
<td>Home responsibilities</td>
<td>This barrier usually means a lack of time. Offer courses at work site, adjust work schedules, use innovative media techniques. (Peterson, 1979)</td>
</tr>
</tbody>
</table>
Barriers

Courses I want aren't scheduled when I can attend

Possible Solutions to Eliminating the Barriers

Develop linkage between the work site and educational institutions to investigate ways to make schedules more flexible, i.e., scheduling classes on weekday evenings and on Saturdays. (Peterson, 1979)

Offer educational programs at the work site. (Charner, 1980)

Use the media to transmit courses, lectures, and reading materials. Have lectures taped so that students may view the tapes at times convenient to their schedules. (Peterson, 1979)

Encourage greater use of independent study which may be more challenging and appropriate to the needs of adult learners. (Peterson, 1979)
APPENDIX E

Raw Data from Decision Makers on Number of Responses to Each Value on the Likert Scale Along with Their Comments
Barrier: Possible Solution:

Not enough time Offer courses at work site to ease
some of the problems of travel.

Likert Scale: Number of Responses Percentage of Responses
0 5 22%
1 0 0%
2 4 17%
3 6 26%
4 3 13%
5 5 22%

Comments:

- Maybe on a limited basis for high demand courses

- Have done this already

- Employees are advised not to undertake such a study schedule as to impair either job performance or to conflict with normal work schedules.

- Very few buildings have a large employee population.

- We have tried this with limited success.
Adjustments of the work day or week such as flex-time, educational leave, and leave of absence.

<table>
<thead>
<tr>
<th>Likert Scale</th>
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<th>Percentage of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>6</td>
<td>26%</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>13%</td>
</tr>
<tr>
<td>3</td>
<td>7</td>
<td>30%</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>9%</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>17%</td>
</tr>
</tbody>
</table>

- Have done this in specific instances.

- Flex-time is now being used in certain departments with moderate success.

- Educational leave and leave of absence practices have been expanded but such leaves do not provide for tuition aid.

- We have flex-time in most work groups.

- Supervisors try to schedule work time to assist students.

- Already doing. Very feasible. Implemented for a short time at our company. Limited interest.

- Not practical in our line of work.

- Raises too many peripheral personnel problems.
Video cassettes, computer simulations and other innovative delivery systems used to offer educational programs to workers.

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</table>

- Extensive use of self-paced material already for vocational training.

- We've had college TV courses in the past, but they proved unsuccessful due to low attendance and high costs.

- Video cassettes and other self-paced delivery systems are offered but get little acceptance.

- Tuition-Aid Plan does not pay for correspondence or TV courses.

- Contingent on educational institutions taking the initiative.

- Very feasible. Implemented for a short time. Limited interest.
Work with colleges to establish short-term seminars, greater use of independent study, and courses offered on weekends.

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- Academia hard to change. Can do on a possibly limited basis.
- Most institutions offer accredited seminars, correspondence courses and week-end schools.
- Local colleges are offering weekend courses.
- Local colleges already doing this.
- Already available.
- To the extent that it addresses a specific local concern, it is OK.
Cost, including books, learning materials, child care, transportation have prepayment rather than reimbursement as the primary mode of payment to workers or have tuition advances, scholarships, training funds, educational savings accounts or loans.

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- Would require additional staff. Not possible.

- Method currently used in our company.

- Maybe with deduction from paycheck if courses not completed satisfactorily.

- If courses are not completed successfully, the cost of recovering tuition paid could be high, and the procedures could be difficult to administer.

- Currently studying innovative payment methods.

- Prepayment is an administrative headache. Recovering advances from
students who drop out or do not achieve required grades is a problem.

- Time and paperwork involved in retrieving pre-paid reimbursement when an individual drops out of class, fails a course, or leaves the company employment makes it imprudent to reimburse tuition costs at the time of enrollment. There must be some budget controls maintained on programs such as Tuition Aid. Most institutions offer some form of grant, scholarship or student loans.

- Low feasibility due to present cost sensitive business setting.

- Prepayment can be an administrative nightmare as a sister company found out.

- Prepayment would be useful.
As part of tuition-assistance, include cost of books and other learning materials.

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- Just approved paying lab fees.
- Not included in the Tuition Aid Plan.
- Low feasibility due to present cost sensitive business setting.
- A costly solution for the company.
Reimbursement of child care and transportation expenses.

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- Too costly.

- Reimbursement for child care and transportation is impractical.

- Too expensive.

- Low feasibility due to present cost sensitive business setting.
Job responsibilities  
Establish a release time policy.

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- Flex-time normally solves the timing problem. However, operators do not have this flexibility because of force scheduling.

- Not for undergraduate work.

- Employees are advised not to undertake a study schedule so demanding as to impair job performance or that conflicts with their normal work schedule. While tuition reimbursement is offered, the company is not obligated to adjust work schedules or assignments to allow employees to participate in the Tuition Aid Plan. If flex-time can be used to accommodate employee needs without adverse impacts, that would be fine.

- Our type of work does not lend itself to this.

- Low feasibility due to present cost sensitive business setting.
Allow sabbatical leaves.

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- Done in rare cases.

- Sabbatical leaves are available, but Tuition Aid is not available to anyone on leave of absence.

- Would depend on work load in particular department.

- Low feasibility due to present cost sensitive business setting.

- Who would be left to do the work?
Lack of company encouragement or reward

Formal encouragement given by supervisors during performance appraisal sessions.

Likert Scale: Number of Responses Percentage of Responses
0 1 4%
1 0 0%
2 2 9%
3 3 13%
4 7 30%
5 10 43%

- Difficult for someone to do this. Depends upon orientation of supervisor.

- Could be written into personnel practices.
Public recognition given to employees who complete courses or programs in the form of certificates, letters of congratulations, etc.

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- Currently working on this.

- When an employee completes a degree program, the Tuition Aid Office obtains a copy of the diploma and forwards a letter to the student's AVP informing him/her of this achievement and to note it on the employee's personnel records. A special form is also prepared by Tuition Aid and sent to Employment and Personnel Services to be entered in the Management Selection System for career tracking and placement considerations.

- Already done.
Support shown from top management by establishing a tuition-assistance office that carries authority and influence.

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- Method already in use in our company.

- We have one.

- Tuition Aid Office has such authority.

- If such an office were constructed, it should emphasize guidance, not necessarily authority and influence.
Inconvenient location of courses

Work with colleges to offer courses at work site, union halls, community centers, public libraries, and schools.

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- Have done this already.

- Cannot offer courses at telephone garages, operator offices, etc. Further, virtually all colleges are in suburbs where people live. Downtown classes were tried, and failed miserably. Students don't want to pay downtown parking.

- Some institutions offer classes at modules away from campus. With a vast choice of accredited institutions, most interested employees can enroll at a college relatively close to their home or work location.

- Not necessary. Many colleges located throughout state.

- Already experimented with this. Work sites have tended not to be suitable for conducting academic training. The other aspects
demand pro-active company staff support which equates to cost.

- We have had limited success with this.

- Very feasible. Implemented for a short time. Limited interest.
Offer courses at places and settings in which workers are comfortable.

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- Have done this already.
- Not necessary. Many colleges located throughout the state.
- Already experimented with this. Work sites have tended not to be suitable for conducting academic training. The other aspects demand pro-active company staff support which equates to cost.
- Very feasible. Implemented for a short time. Limited interest.
Amount of time required to complete program

Work with colleges to encourage the offering of short-term courses.

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Various institutions are now offering short-term courses in the way of special Management Programs where one is able to complete a BA in 2 years. Seminars, some which can be completed in a day, are also eligible for reimbursement.

- Difficult to do.

- Short term courses already available at some universities.

- Many local colleges do this.

- Already available at some schools.

- Colleges are doing this themselves.
Home responsibilities

Offer courses at work site, adjust work schedules, use innovative media techniques.

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- Flex-time, enhanced leave of absence, and correspondence courses can be provided to care for this.

- Many colleges available throughout the state.

- Contingent on educational institutions taking the initiative. Low feasibility due to present cost sensitive business setting.

- Almost 7,000 of our employees seem to be overcoming this problem.

- Very feasible. Implemented for a short time. Limited interest.
Courses I want aren't scheduled when I can attend

Develop linkage between the work site and educational institutions to investigate ways to make schedules more flexible, i.e., scheduling classes on weekday evenings and on Saturdays.

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- In our area, several schools have special Weekend College programs which are very popular with our employees.

- Have done this on occasion.

- The majority of colleges offer evening and weekend courses. Not cost effective to have work site programs, video taping or messenger services for school materials.

- All institutions offer evening and Saturday classes, but they do not want to come to work sites where they have insurance liability problems, classroom maintenance and material storage problems. In our city, we have a "University Without Walls" in which scholastic
work can be accomplished without class attendance. Therefore, if an employee wants an education, most of these barriers do not apply in our company.

- Many local colleges already doing this.

- Due to large number of educational institutions in our company area, employees have many options available to them, e.g., evenings, week-ends, accelerated degree programs.

- Very feasible. Implemented for a short time. Limited interest.
Offer educational programs at the work site.

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- Very feasible. Implemented for a short time. Limited interest.
- We have done this.
- Very few work locations have enough employees to warrant this.
- Already experimented with. Work sites have tended not to be suitable for conducting academic training.
Use the media to transmit courses, lectures, and reading materials. Have lectures taped so that students may view the tapes at times convenient to their schedules.

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- Very unlikely due to academic view of teaching.
- TV courses not approved under Tuition Aid Plan.
- Contingent upon educational institutions to want to use this approach.
- We do not agree with the passive learning experience.
- Very feasible. Implemented for a short time. Limited interest.
Encourage greater use of independent study which may be more challenging and appropriate to the needs of adult learners.

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- Happens on rare occasions.

- Not practical since TV and correspondence not reimbursed under Tuition Aid Plan.

- Contingent upon offering by educational institutions. The one program available in our area that offers independent study is "suspect" as to its "academic rigor."

- We have allowed for independent non-traditional study.
General Comments

- I believe we should encourage our employees and make it easier for them to take courses, but the primary motivation has to come from the individual.

- It is most significant to educate the employee body in the importance of career long learning for them and for the business. They should also understand they must become more self-directed in their pursuit of learning and the company encourages that through educational aid.

- Most of the barriers are already handled in most of the areas of the company.

- Our policy is to encourage the employees self-development but not to usurp the function of individual motivation.

- The great majority of our people take courses in the traditional manner at evening colleges in our area; these courses are in relatively convenient proximity to most of our employees.

- We agree that the benefits of personal development are received by both the employee and the company, which warrants the corporation's support of continuing education. At the same time, personal development is a dual responsibility requiring a sizable amount of effort on the employee's part. Employee "self-help" groups have formed in several work areas to organize their own personal development programs in our company. While these groups are not
actually sponsored by the company, they are supported in a number of ways. Space for meetings and classes is provided by individual departments. Subject matter experts and professionals from various work groups contribute their time to speak or lecture. And, employee expenses for eligible courses and workshops are reimbursed through the Tuition Aid Plan. This type of cooperation, and the ability for local colleges to offer courses at the work site, have been the largest contributors to our increase in participation over the past year. In addition to eliminating barriers, we are being careful not to create any new ones.

- Initiative and innovativeness by educational institutions in adapting college courses to new media is one factor. Some schools have made infant steps in this area but I sense they lack the entrepreneurship, skill, know-how and funds to undertake such new approaches. My view is they are still rooted in traditional academic learning modalities.

- Corporate cost consciousness on our part is another major factor. Presently we reimburse 100% of the tuition and fees for courses. Our corporate spending in this area exceeds one million dollars a year and that is substantial in a company of our size. Further, to increase the cost by such factors as release time or child care when we have a substantial number of educational institutions and programs offered at various times available in our area is hard to justify.
- As a general commentary, a number of the barriers suggest a corporate role which we cannot identify with. Concerns over childcare or individual transportation problems have rarely surfaced in the administration of our plan. On the other hand, we have wrestled with considerations about paying for books, prepayment, and in opening our facilities for academic purposes. Of these considerations, other than opening our facilities for academic purposes which we do from time to time, only book reimbursement has any merit to us, and that we rejected as being too costly.
APPENDIX F

Summary and Discussion of Demographic Data
### Appendix F

**Summary of Demographic Data**

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<th>Participants</th>
<th>Nonparticipants</th>
<th>Total Company Population</th>
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<td><strong>Male</strong></td>
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<tr>
<td><strong>Female</strong></td>
<td>62%</td>
<td>53%</td>
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<tr>
<td><strong>Non-respondents</strong></td>
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<td>Under 25 years</td>
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<tr>
<td>35-44</td>
<td>25%</td>
<td>26%</td>
<td>28%</td>
</tr>
<tr>
<td>45-54</td>
<td>5%</td>
<td>17%</td>
<td>20%</td>
</tr>
<tr>
<td>55 or older</td>
<td>1%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Non-respondents</strong></td>
<td>5%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>61%</td>
<td>78%</td>
<td>77%</td>
</tr>
<tr>
<td>Black</td>
<td>30%</td>
<td>18%</td>
<td>22%</td>
</tr>
<tr>
<td>Spanish</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Asian American</td>
<td>1%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Native American</td>
<td>1%</td>
<td>2%</td>
<td>less than 1%</td>
</tr>
<tr>
<td>and other</td>
<td>1%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td><strong>Non-response</strong></td>
<td>7%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>26%</td>
<td>20%</td>
<td>Not Available</td>
</tr>
<tr>
<td>Married</td>
<td>50%</td>
<td>61%</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>1%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Divorced/Separated</td>
<td>18%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td><strong>Non-response</strong></td>
<td>6%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td><strong>Number of Children</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No children</td>
<td>43%</td>
<td>46%</td>
<td>Not Available</td>
</tr>
<tr>
<td>1 child</td>
<td>21%</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>2 children</td>
<td>20%</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>3 children</td>
<td>5%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>4 or more children</td>
<td>5%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Non-respondents</td>
<td>6%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td><strong>Income Level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>2%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>$10,000-$19,999</td>
<td>15%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>$20,000-$29,999</td>
<td>22%</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>$30,000-$39,999</td>
<td>26%</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Participants</td>
<td>Nonparticipants</td>
<td>Total Company Population</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------------</td>
<td>----------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td><strong>Income Level</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$40,000-$49,999</td>
<td>13%</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>$50,000 and over</td>
<td>10%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Non-respondents</td>
<td>13%</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td><strong>Employee Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>46%</td>
<td>35%</td>
<td>25%</td>
</tr>
<tr>
<td>Non-management</td>
<td>49%</td>
<td>63%</td>
<td>75%</td>
</tr>
<tr>
<td>Non-respondents</td>
<td>5%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td><strong>Level of Education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 years or less</td>
<td>20%</td>
<td>49%</td>
<td>92%</td>
</tr>
<tr>
<td>1 year of college</td>
<td>20%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>2 years of college</td>
<td>28%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>4 year college degree</td>
<td>9%</td>
<td>10%</td>
<td>8%</td>
</tr>
<tr>
<td>Some graduate of professional</td>
<td>18%</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>schooling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-respondents</td>
<td>5%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td><strong>Degree Programs</strong></td>
<td></td>
<td></td>
<td>Not Available</td>
</tr>
<tr>
<td>A.A.</td>
<td>6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.A.</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B.S.</td>
<td>11%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M.B.A.</td>
<td>8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master's</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M.S.</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor's</td>
<td>3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate's</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.S.</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M.A.S.</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-response</td>
<td>62%</td>
<td></td>
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</tr>
<tr>
<td><strong>Field of Study</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Administration</td>
<td>22%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary Education</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Studies</td>
<td>4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical Engineering</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management Technology</td>
<td>2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounting</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal and Industrial Relations</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telecommunications</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrical Technology</td>
<td>1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-respondents</td>
<td>44%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discussion of Demographic Data

With respect to the demographic variable of sex, it can be seen that females constituted the larger percentage in both the participant and the nonparticipant groups. Concerning age, greater percentages of nonparticipants comprised the older age categories. For both groups, the 25-34 year old category consisted of the most individuals. The 35-44 year old group percentages were virtually the same for both participants and nonparticipants. It may be noted again that there were considerably more persons in the older age bracket, i.e., 45-54 years and 55 and over, in the nonparticipant group than in the participant group. For racial composition, whites constitute the largest single racial category by percentage for both groups.

This study revealed that with regard to marital status, except for non-response, rank ordering per marital status category is identical for both the participant and nonparticipant groups with specific percentages varying slightly. Rank ordering per category is again similar to the category of marital status for both the participant and nonparticipant groups with respect to number of children in the family.

Little variation was exhibited with respect to group distribution and income level. For both participant and nonparticipant groups the $30,000-$39,999 and $20,000-$29,999 or middle income ranges were comprised of the most individuals and the less than $10,000 category contained the least. With respect to the upper income brackets, $40,000-$49,999 and $50,000 and over, there are approximately 4% more employees in these categories in the nonparticipant group than in the participant group.

Concerning employee status and the categories of management and non-management, there was almost a 50-50 split for the participant group with 46% describing themselves as management and 49% classifying their positions as non-management. In contrast, the nonparticipant group was split 35% management and 63% non-management.

The study found for level of educational attainment that the largest category for participants consisted of those with two years of college. The category with the highest frequencies for the nonparticipant group was the 12 years or less of formal schooling. Thirty different fields were elicited in response to the category of specific fields of study.
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ABSTRACT

Because of the increased number of large corporations offering tuition-aid programs to their employees, there is a need to collect data and study the motivation for participation and barriers to participation for this population.

A questionnaire, with items identifying motivational factors and barriers to participation in tuition-aid programs, was developed and sent to a sample of employees of a major corporation who do and who do not participate in that corporation's tuition-aid program. This study found that cost and time considerations are overwhelmingly cited as the chief barriers for participants and nonparticipants. Barriers identified as significant by both participants and nonparticipants were examined through a review of literature as to possible solutions to their elimination. The chief decision-makers in the 23 operating companies of the corporation rated each of the recommendations as to their feasibility in being implemented. The decision-makers rated prepayment and paying for material costs as the two lowest possible solutions they would consider implementing in order to reduce the barriers. What emerges clearly is the point that management must take a hard look at their present policies that appear to be barriers to participation in tuition-aid programs. The researcher developed a set of final recommendations along with a rationale for each.