The basis for mid-career changes is investigated and ways in which academic counselors can help adults make the transition to a postsecondary educational institution are examined. Two general areas for initiating midcareer changes can be identified: personal motivations and environmental pressures. Nancy Schlossberg (1984) has developed a comprehensive model that serves as a guide for understanding the nature of adult transitions and determining how academic counselors can assist adults in transition. The model has these components: the transition itself, the environment in which the transition occurs, and the personal characteristics, psychological resources, and coping responses of the individual. Despite the requirements of long preparation time and high starting qualifications, high technology careers are popular targets for adults in mid-career changes because of the good employment outlook and compatible job duties. An informal survey conducted with nontraditional degree-seeking new students at the Ohio State University indicates that these students entering college face other transitions in their lives. To help adults in transition, academic counselors should be aware of the issues and use counseling skills effectively. Program changes should be made to ease the transition to college for adult students. Counselors should make the adult assume responsibility for all decisions, keep counseling general, focus counseling on the academic program, focus on removing educational barriers, and determine the adult's life and career development stages. (YLB)
ACADEMIC COUNSELING FOR ADULTS IN TRANSITION TO HIGH-TECH CAREERS


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INTRODUCTION

The purpose of this article is to investigate the basis for mid-career changes and how academic counselors can help adults make the transition to a postsecondary educational institution. First, the reasons for mid-career change are presented. Second, the process of career change and adult transition is explored. The third factor that is examined is the attraction of high tech careers. Fourth, the need for adult career counseling is established. Some empirical data supporting the assertions of the paper are presented next. Last, ways in which the academic counselor can help the adult student in transition to a high tech career are presented.
I. BASIS FOR MID-CAREER CHANGE

Adults change careers for many different reasons. Sarason, Sarason, and Cowden (1975) noted four general factors regarding the general process of motivation and career change: 1) the selection of a career determines how the rest of one's life will be spent; 2) the process of selecting a career from the great variety of choices creates stress and focuses the individual's attention on the process of aging; 3) starting one's life work in their second, third, or lower choice is tragic because it affects the individual's self-esteem; and 4) more and more people are changing careers.

There are other factors that add to the complexities of mid-career change. Some of these are career crises caused by obsolescence, injury, declining health, or economic changes such as plant closings. A strong tradition of the "single career" also affects mid-career changers. From this perspective only those individuals who experience problems (e.g., being fired or laid off) should ever have to face a career change. Recent demographic and economic trends, however, have made the notion of the multiple career pattern more prevalent. A major problem for career changers, as noted by Cross (1978), is the lack of career and educational counseling services for adults who wish to change careers.

Heddesheimer (1976) has provided a useful model for viewing the motivations of mid-career changers. She notes that there are two sources of motivation for career change: pressure from within the individual and pressures from the environment. Each
of these pressures can be characterized as low or high. Low pressure from within the individual and high pressure from the environment results in routine career selections and an absence of career changes. High pressure from within the individual and low pressure from the environment results in a self-determined career. Often the motivation for changing careers under these circumstances is the desire for more satisfying work. Low pressure from within the individual and high pressure from the environment results in a situationally determined career. Self-direction is not evident in this pattern and career changes are caused by forces outside of the individual's control. High pressure from within the individual and the environment results in a self-directed accommodation career pattern. Compromise between individual goals and the reality of the environment mark this pattern. In addition, Heddesheimer notes two pressures from within the individual: search for satisfaction and developmental stages. Pressures from the environment are: family changes, changes in the job situation, and societal and economic changes.

Following Heddesheimer's model, two general areas for initiating career change can be identified: personal motivations and environmental pressures. An extensive survey by Arbeiter, Aslanian, Schmerbeck, and Brickell (1978) identified three motivations for career change. They are, in order of frequency: financial need, more interesting work, and professional advancement.

There is some evidence that the desire for "career satisfaction" may be closely linked with a re-examining of one's values.
and status. Murphy and Burck (1970) note that this period of mid-life change can be one of the most negative periods in an adult's life and should constitute a stage of development in and of itself. They suggest that the developmental tasks of this period are setting new milestones, reassertion of control over one's development, stock-taking, reactivation of control over one's future, and self-acceptance in the face of growing limitations and changing family relations. Support for their assertion of a new stage of career development comes from the work of Levinson (1974) and Gould (1978), among others.

In addition to personal pressures, there are also environmental pressures. The 1982 supplement to the Dictionary of Occupational Titles (DOT) list 275 occupations not included in the 1977 edition of the DOT. These occupations have come into being since the mid-1970s and are indicative of our rapidly changing economy. Besides many new careers coming into being, some established occupations are stabilizing or being phased out. Many factors influence these economic changes including demographic variables such as: changes in the population size, age, geographic location, and level of education. Other factors influencing occupational demand include energy resources, foreign imports, government fiscal policy, and technological advances.

The changing population and economy bring many pressures to bear on the individual which may result in career change.
II. PROCESS OF MID-CAREER CHANGE

Mid-career change can be viewed as a challenge, a chance to realize dreams, or as an unwanted burden. Sarason (1977) has noted that there are several types of career changes: horizontal, from one field to another; vertical, advancing within one's field; and multiple vertical changes. The focus in this paper will be on horizontal career changes which require the individual to re-assess his/her career status and decisions.

Super (1957) has identified several career patterns for men and women. These patterns indicate success and stability in the labor force. For men, the career patterns are stable, conventional, unstable, and multiple trial. Stable patterns are characterized by early entry with little or no trial period. Conventional patterns include trial work periods followed by a stable pattern. Unstable patterns consist of a number of trial jobs followed by temporary stable jobs and other trial jobs. Multiple-trial career patterns indicate that the individual did not establish stability in any job.

There are several career patterns of women. Stable homemaking indicates marriage before any significant work experience. A conventional career pattern for women is temporary work followed by full-time homemaking. A stable pattern is a career orientation for a life-time. The double-track pattern consists of work and homemaking. An interrupted career pattern is work followed by homemaking followed by work. Unstable career patterns result when the cycle of an interrupted career pattern is
repeated several times. A multiple-trial career pattern is marked by continual changes in employment.

Knowledge of the individual's career pattern can be helpful to the academic counselor. There are many forces affecting an individual's career pattern including socio-economic factors, level of education, intelligence, and degree of motivation. Career patterns can be related to career stage of development. The importance of understanding a person's stage of career development is that the crucial career issues faced by the individual at that time in his/her life are determined, in part, by his/her stage of career development.

Campbell, (1979) has described four stages of adult career development: preparation, establishment, maintenance, and retirement. While, in general, there are age ranges associated with each stage, an individual may enter or re-enter any stage at any point in his or her life-span. The preparation stage consists of young people beginning the career development process, homemakers entering the labor market for the first time, self-employed persons who decide to join an organization, or people entering or re-entering the labor force after an extended absence. The goal of this stage is to prepare for an occupation and obtain a job. The major tasks one faces in the preparation stage are to assess oneself and the world of work, make decisions, implement plans, obtain a position, and perform adequately in the organization.

The establishment stage has as its goal to demonstrate one's ability to function effectively in an organization. The major
tasks of this stage are to become oriented to the organization, demonstrate satisfactory position performance, and explore career plans in terms of personal goals and advancement opportunities. Individuals in the establishment stage can be young and just getting started in the labor force. Another group of individuals in the establishment stage are more mature workers who have decided to make a mid-career change or to come out of retirement. This second group of people do not need to re-learn work attitudes and values, but do need to be re-oriented to new organizations and learn new job skills.

The maintenance stage is more age related than the other stages. This stage implies a long-term commitment to a career and has as its main goal to maintain a desired level of functioning in an established occupation. The tasks of this stage are to assess oneself in terms of status within one's present occupation, position, and organizational setting; decide on and implement a master plan; adjust to changing personal and organizational events; and maintain satisfactory position performance.

Campbell notes that the retirement stage is not as age specific as one might at first think. Although retirement is usually associated with leaving the workforce, a number of tasks must be met by the individual. The general goal of this stage is to maximize personal options in retirement. The general tasks are to decide whether to retire full-time or part-time, explore options for part-time retirement, assess interpersonal relationships, and develop and maintain a retirement plan. Most retirees are in their mid-60s, but there are increasing numbers in their forties and fifties.
Nancy Schlossberg (1984) has developed a comprehensive model of adult transition. It serves as a guide for both understanding the nature of adult transitions and determining how as helpers we can assist adults in transition. The model has several components: the transition itself, the environment in which the transition occurs, and the personal characteristics, psychological resources, and coping responses of the individual.

Schlossberg defines a transition as an event or nonevent which results in a change in assumptions about oneself and the world and thus requires a corresponding change in one's behavior and relationships. A transition can be anticipated, unanticipated, a chronic hassle, or a nonevent. Anticipated transitions are those normative events in life such as leaving home, marriage, starting work, and retiring. Unanticipated events are unpredictable events in life such as accidents, illnesses, and being fired or promoted. Chronic hassle transitions are continuous and pervasive such as poor marital relationships or personality conflicts at work. Nonevents are transitions on which a person has counted which do not occur. Examples include an impending marriage that is called off or an expected promotion that is given to another employee.

The relationship of the individual to the transition can be personal, interpersonal, or community-based. The setting of the transition can be the self, family, friends, work, health, or economic. The relationship and setting can be combined to form categories of transitions. For example, a personal/self transition might be an identity crisis; an interpersonal/family
transition could involve relationships with the spouse or children; and a community/work transition could be disgrace suffered as the result of receiving unemployment compensation or welfare payments.

Other characteristics of the transitions are the trigger (what has triggered the transition); timing (whether the transition is on or off time); source (internal or external); role change; duration (temporary, permanent or uncertain); the individual's previous experience with similar transitions; and other concurrent stress of the individual.

The characteristics of individuals undergoing transitions can be categorized into personal and demographic characteristics, psychological resources, and coping responses. Coping responses include functions and strategies. Functional coping responses are controlling the situation, controlling the meaning of the situation, and controlling the stress resulting from the situation. Strategic coping responses can be categorized under three headings: information seeking, direct action, and inhibition of action. Direct action strategies include negotiating, emotional discharge, self-assertion, and optimistic actions. They are characterized by a feeling of potency versus self resignation. Inhibition of action strategies include selective ignoring, passive forebearance and denial.
III. ATTRACTION OF HIGH-TECH OCCUPATIONS

Adults in mid-career change face many decisions. The quality of those decisions is affected, in part at least, by the quality and quantity of information the individual has at his/her disposal. What is valued in a new career varies from one person to another, but there are several factors that are considered desirable by most people. These are a good employment outlook for the field; the nature of the occupation being compatible with the interests, values, and abilities of the person; and preparation time and qualifications for the occupation being within reach of the individual.

Because of their visibility in the news and other mass-media, high-tech careers are popular targets for adults in mid-career changes. They possess the desirable characteristics of good employment outlook and compatible job duties but often involve long preparation time and high starting qualifications. For these reasons many adults in mid-career changes consider entering school for retraining. According to Occupational Projections and Training Data (1984) some of the occupations with the largest or fastest growth (from 1982 to 1995) are also the most highly visible and desirable high tech careers. Some of these are electrical and electronics technicians, computer systems analysts, electrical engineers, computer programmers, physicians and other medical specialists, computer operators, computer service technicians, office machine repairers, civil engineering technicians, peripheral EDP equipment operators, and mechanical engineers.
In general, service producing industries will experience a steady increase in demand for workers while goods producing industries will experience only a moderate increase in demand. Of the twenty fastest growing occupations (not necessarily the occupations with the most growth), half are related to either the health field or computers.
IV. NEED FOR ADULT CAREER COUNSELING

The need for career services for adults has been well documented. Arbeiter, Aslanian, Schmerbeck, and Brickell (1978) demonstrated the need in their article, "Forty Million Americans in Transition: The Need for Information." Extrapolations from their survey indicate that approximately 40 million American adults are in, or are anticipating, some type of career transition. Approximately 60% of these adults will seek additional education and career services. Some of the services desired by these adults in or facing transition include lists of available jobs; occupational information; career counseling; lists of educational programs; and job skills training. The authors state that the three primary motivations for career change are financial need, the desire for more interesting work, and professional advancement. They also note that the less educated and younger adults express greater desire for counseling and services than older and more educated adults.

In The Missing Link: Connecting Adult Learners to Learning Resources, Patricia Cross (1978) notes three primary functions of an educational brokerage service: to facilitate access to learning resources for special groups of adults; to provide information about learning resources; and to offer counseling and referral services. The academic counselor working with adult students in an institution needs to be prepared to provide these services also.

Vaillant (1977) has identified four elements necessary for the development of the human "life-cycle": 1) social and
economic opportunities to reach one's goal; 2) individual motivation; 3) sources of support and guidance to help individuals cope; and 4) personal resources such as health, money, transportation, and psychological resources. Each of these four critical factors presents the academic counselor with the opportunity to help. Adults are not always aware of their full range of options and available opportunities. Providing this information is a key part of the academic counselor's job. Academic counselors must sometimes assist students in developing and/or maintaining motivation. This is especially true when it may take the adult student years to complete a program and many other activities must be curtailed while the adult attends school. Academic counselors must at once be a source of support and guidance as well as a resource to additional sources of support for the returning student. Academic counselors must be aware of resources in the institution and the community to supplement the individual's resources when needed. Resources such as financial aid, child care, tutoring, and/or emotional and motivational support (e.g., peer support groups) are often required.

There are many issues facing adults which encourage them to seek counseling and enter higher education. Some of these are reassessment of oneself caused by personal changes such as mid-life crises, changing economic conditions, family changes, job and career changes, and health changes. Alan Knox has addressed the issue of "change events" in one's life. These change events evoke "the need for some adaptation process, for
some adults at least, a heightened readiness to engage in educative activities." (Knox p. 539) Robert J. Havighurst refers to this as the "teachable moment" (Havighurst, 1953). Knox's concept of change events parallels Schlossberg's model of transition. As adults experience transitions (such as changing conditions at work), they become motivated to seek out new career opportunities often involving retraining or expanded educational commitments.
V. SURVEY OF NON-TRADITIONAL STUDENTS IN TRANSITION

An informal survey was conducted with non-traditional degree seeking new students at The Ohio State University during Autumn Quarter, 1984. These students were enrolled in a one-credit-hour orientation course at the university. Most were evening and weekend students while a few attended during the day. The total number of students surveyed was 76. The students ranged in age from 22 to 62. The average age was 27.18 and the mode was 23 (12 students). There were 29 male and 47 female students. Forty-six percent were single; 39% married; the rest, 15%, were divorced, separated, or widowed. The majority did not have children.

In response to the question "Why are you going to college?" most students (47%) ranked "personal enrichment and satisfaction" as their primary reason. "Professional advancement" (38%) and "to change careers" (36%) were also ranked high. Nineteen percent responded with "to change jobs" as their primary reason for going to college. None of the respondents mentioned "expectations of family and friends" as a reason. (In this and subsequent sections the percentages may not add to 100% because some students gave more than one response to some items.)

The trigger of the transition to school for the sample varied from one student to another. Most students, however, had wanted to attend college for some time. Recent changes or realizations had provided them with the necessary catalyst to return to school. In response to the question: "Why are you starting college now?", students made the following responses: increased self confidence, feeling of readiness, or feelings of
time running out, 24%; financial opportunity to attend college, 22%, now able to attend college because of changed family responsibilities, especially children being in school, 17%; changes in job and career status, 16%; and having the time for school now (no reason given for the increase in available time), 8%. For some, children reaching school age has enabled them to attend school, job and marital changes have been the catalyst for others, and desire to use financial aid benefits before they expire or are exhausted has helped to motivate still others.

The results of the survey point out that these adults entering college are facing many other transitions in their lives as well. The various circumstances in which the adult students find themselves and their abilities to cope can be described using Schlossberg's model of transition. Anticipated transitions of starting or returning to school could affect the adult in many ways. Decisions regarding self, family, friends, work, health, and economic issues are all potentially affected at the personal, interpersonal, and community levels. In addition, as the survey results indicate, these adults are facing many other transitions at the same time.

In response to listing changes in their status that had occurred during the last year, many family, career, economic, and health transitions were noted. The family related transitions were marriage, 16%; divorce, 6%; new children, 10%; death of relatives, 16%; marital problems, 13%; and illness or accidents, 10%. The career related transitions were job loss, 12%; promotion,
18%; new job, 21%; dissatisfaction with employer, 26%; and dissatisfaction with job, 29%. None of the respondents checked "demotion" as a career related transition they were currently undergoing. Economic transitions that occurred were purchasing a new home, 29%; new car, 36%; other major purchases 20%; inheritance, 3%; and other major receipt of money, 6%. One percent reported experiencing some type of personal health problems within the past year.

In addition to the many transitions noted earlier, many of the adult students had recently moved; had job changes; or changes in marital status or family relationships. Helping these students plan an academic program can involve much more than selecting courses. Many of these other transitions can serve to inhibit or enhance an adult student's chances for success.

Most of the adults beginning or returning to college in this sample had already decided on an academic major and career direction. Forty-eight percent had decided on a specific major while 42% had chosen a particular occupation in which they wished to be employed after graduation. Fifteen percent stated that they had narrowed the choice of their major and post college occupation to a few possibilities. Eighteen percent had selected a tentative academic major while 12% had selected tentative post college occupations. Nineteen percent were undecided about their academic majors, while 31% were undecided about their post college occupations.

The services desired most by the students were information and help with course selections and registration (56%), cutting
through the university's red-tape (50%), financial aid (50%), study skills (48%), information about job opportunities (48%), and information about occupations to which various majors lead. Less frequently mentioned services included help in selecting a major (34%), help in choosing a career (28%), information about campus resources (28%), assistance with preparing a resume and learning job seeking skills (28%), tutoring for specific courses (26%), referrals for child care (9%) and housing (6%).

Although the adults in The Ohio State University survey are entering or returning to higher education in response to life changes or attitude changes, they (like all non-traditional students) face barriers to participation in education. Darkenwald and Merriam (1982) list four categories of barriers to participation: situational, institutional, informational, and psychosocial. Situational barriers are factors of the individual's environment that make participation in an educational experience difficult or impossible. Examples include lack of finances, lack of child care, and lack of transportation.

Institutional barriers are the policy and procedural factors that do not accommodate the needs of adult students. They include inconvenient class schedules, confusing registration procedures, and lack of adequate financial aid for part-time attendance. This is a symptom of what Gordon Darkenwald refers to as the "marginality syndrome" (p. 201, 1980). "Because adult education is rarely central to what the parent organization sees as its principal goals, resource dependency and scarcity tend to dominate agency functioning."

Informational barriers involve not only inadequate communication
of the institution to its potential consumers, but also the failure of adults to look for and utilize the information that is available. Psychosocial barriers are the values and attitudes held by adults that prevent them from being willing to participate in learning experiences. Examples of this are people who say that they're too old to learn or that school is for children.

In response to the needs expressed by the adult students in the survey and in an attempt to overcome the barriers to participation, some counseling strategies and programmatic suggestions will be offered.
VI. ACADEMIC COUNSELING FOR NON TRADITIONAL STUDENTS IN TRANSITION TO HIGH-TECH CAREERS

Academic counseling of adult students demands flexibility and a variety of skills. Schlossberg (1984) notes that most adults in transition recognize the major issues affecting them, but they may be confused. Counselors who are aware of the issues and can help the individual put them into perspective are better able to help the adult in transition. A second factor in helping adults in transition is the effective use of counseling skills, including providing nonbiased relationships, providing a new perspective, and influencing action or inaction.

When involved in counseling adult students there are many factors to take into consideration. A basic consideration is when to encourage an adult student to pursue a career choice and when to try to redirect the student's interests. There are three factors that were considered in this paper regarding the selection of an occupation. The nature of the work should be compatible with the interests, values, and abilities of the individual. The employment outlook should be satisfactory. The preparation time and qualifications demanded by the occupation should be obtainable by the individual.

There are many factors of the individual that should be considered. Heddesheimer has provided a model for understanding the pressures and motivations that underlie the mid-career changes. Super's career patterns and Campbell's stages of career development describe the salient issues affecting the adult at that point in his/her career development. Schlossberg's model of transition
provides a framework for understanding the circumstances in which an individual finds him/herself, the characteristics of that individual, and his/her ability to cope with the transition.

William Bauer (1981) offers a number of suggestions for easing the transition to college for adult students. He recommends simplifying admissions procedures by shortening the time that an adult must wait for notification of admission. Letters of recommendation from current employers, Bauer indicates, should be substituted for letters from high school teachers and guidance counselors. Because most adults have a wealth of life and work experience, credit by examination, credit for prior experience, and waiver of some prerequisite courses should all be available options for the re-entry adult.

Bauer adds that remedial courses may be necessary, in order to refresh the non-traditional student's rusty mathematics, English, and study skills. He suggests that orientation programs, specifically designed for adults, be offered at a variety of convenient times. Because spouses have an investment in the student's academic success, they should be invited to attend the program. In an attempt to facilitate faculty and administrator understanding of the needs of adult students, Bauer recommends task forces and workshops that include members of the faculty, of the administration, and representatives of the adult student population.

Courses should be scheduled during weekend and evening hours. All appropriate student services, including the health center, the advising office, and tutoring services, should be open in the
evening hours and on weekends. Scholarships and other financial aid should be made available to part-time students.

Alan Knox (1979) indicates that many institutions offer courses and workshops specially designed to assist adults in understanding and successfully negotiating their life stages and career changes. Some colleges and universities also provide workshops on a variety of topics to help non-traditional students make the academic adjustment to higher education. The topics include: time management, stress management, term paper writing, decision making, assertiveness training, and planning for professional school.

In summary, eight suggestions are provided for counselors working with adults in transition to educational experiences.
1. Whatever counseling approach is used, the adult students should take responsibilities for all decisions made during academic counseling.
2. Counseling should be general enough to include all transitions which possibly could affect academic performance. Adults need to see the relationships among the transitions they are experiencing and the possible effects.
3. Counseling needs to be focused on the academic program. The adult student needs to know all the factors concerning the program (e.g.: cost, duration, time commitment, and job outlook) before making a decision.
4. When adults are not facing major personal crises, counseling does not need to be therapeutic. It should be oriented toward providing information, removing barriers, presenting options,
facilitating decision making, and making connections with needed resources. In the event of a severe emotional or psychological trauma adult students can be referred to appropriate psychotherapy services.

5. In many situations, adult students must cope with problems created by a "system" designed for traditional students. Academic counseling for adult students should focus on removing these barriers when possible.

6. Every adult will have different socio-economic characteristics, psychological compositions, and coping responses. Each should be helped with resources of the institution most compatible with those of individuals.

7. New institutional policies, procedures, and resources should be developed when it is discovered that the institution is not meeting the needs of its adult students.

8. The counselor should determine the adult's life and career development stages. Such information will assist the counselor in designing an appropriate, personalized counseling program for each individual.
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