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ABSTRACT

This report examines the existing literature concerning how young people enter the labor market and specifies what important questions may be analyzed by existing but untapped data and what issues require further research. In reviewing the extent of current knowledge, its scope is found to be limited to three general areas: the role is known of background factors, ability, school performance, and the influence of teachers, family, and friends on the age (or grade level) at which young men make the transition from school to work; people are influenced by their personalities to aspire to certain types of occupations; and young people find jobs primarily through the assistance of acquaintances and relatives but prefer direct application without the intervention of a third party. Routes for further investigation are suggested as follow: (1) age/SES [socio-economic status]/race/education-specific distributions and transition rates for full- and part-time schooling and simultaneous employment; (2) longitudinal studies of preferences that include later actual job outcome characteristics to test the assumption that career aspiration helps to explain the allocation of different jobs; (3) data on recruitment methods used nationally by employers (i.e., data indicating age-specific preferences for employees and based on actual behavior); and (4) more elaborate study of the process of job search, emphasizing patterns of job seeking across occupational situses, heterogeneity of job search methods, and the relationships among duration, intensity, and methods of search. (Author/ELG)

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HOW YOUNG PEOPLE FIND CAREER-ENTRY JOBS:
A REVIEW OF THE LITERATURE

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Introductory Statement

The Center for Social Organization of Schools has two primary objectives: to develop a scientific knowledge of how schools affect their students, and to use this knowledge to develop better school practices and organization.

The Center works through three programs to achieve its objectives. The Policy Studies in School Desegregation program applies the basic theories of social organization of schools to study the internal conditions of desegregated schools, the feasibility of alternative desegregation policies, and the interrelation of school desegregation with other equity issues such as housing and job desegregation. The School Organization program is currently concerned with authority-control structures, task structures, reward systems, and peer group processes in schools. It has produced a large-scale study of the effects of open schools, has developed the Teams-Games-Tournament (TGT) instructional process for teaching various subjects in elementary and secondary schools, and has produced a computerized system for school-wide attendance monitoring. The School Process and Career Development program is studying transitions from high school to postsecondary institutions and the role of schooling in the development of career plans and the actualization of labor market outcomes.

This report, prepared by the Policy Studies in School Desegregation Program, reviews the literature concerning how young people enter the labor market. The review provides a base for future studies of black-white differences in finding career-entry jobs.

Abstract

The transition from adolescent student to adult member of the full-time labor force is a problem area that many research panels and conferences have suggested is in need of much research effort. This paper examines the existing literature to determine what is known about the process of job-finding among youth. The paper also specifies what important questions may be analyzed by existing but untapped data and what issues will require new empirical data for their investigation.

Some of the suggested routes that further investigation should take include: age/SES/race/education-specific distributions and transition rates across the various categories of full- and part-time schooling and simultaneous employment; longitudinal studies of preferences that include later actual job outcome characteristics to test the assumption that career aspirations help to explain the allocation of different jobs; data on recruitment methods used by a nationally representative sample of employers-- data based on actual behavior and data from which we can determine how age-specific preferences for employees affect the recruitment patterns used; and more elaborate study of the process of job-search, including special emphasis on patterns of job-seeking across occupational situations, heterogeneity of methods of job-search, and the relationships among duration, intensity, and methods of search.

INTRODUCTION

We know little about how young people opt for and obtain jobs early in their careers. To what extent are young people aware of different job possibilities? To what extent does this information about the job market affect their decision-making to seek full-time employment and to what extent does it affect their job-search strategy? What are the specific means that young people use to search for and find employment? How do jobs found by different methods compare in quality and job satisfaction? How do chosen jobs compare with rejected jobs in terms of prior occupational goals and interests or in terms of extrinsic rewards, expected quality of working environments, and locational convenience?

We need to answer these critical questions to understand the process by which a student becomes a stable member of a particular employer's regular full-time work force. Yet the social process by which different jobs and different employers are allocated to young people has received little attention from researchers, even though the questions involved seem pertinent to major areas of social science research--the "status attainment" research tradition within sociology; the vocational psychologists' study of personality and vocational goals; and work by economists relating economic conditions to youth's labor force behavior. Rarely, in any of these areas, do we find the job attainment process itself a central focus of critical inquiry.

This paper examines the existing literature to determine what is known about the process of job-finding among youth. We will also specify what important questions may be analyzed by existing but untapped data and what issues will require new empirical data for their investigation.

Most of the literature contains data on male youth alone, and consequently this review will reflect this informational disparity.

A strict definition of the "process" of finding a job would include only those behaviors that are directly related to the events constituting employment--job-searching by the candidate and applicant-seeking by the firm. But more broadly, the acquisition of a particular job involves decision-making about the nature of one's "career" and the timing of "labor force entrance." Even the term "labor force entrance" needs to be interpreted because of the potentially critical distinction between temporary income-producing arrangements and long-term occupational career ladders. Thus, before reviewing the available evidence about the job-seeking patterns of young workers and the recruitment patterns of employers, we need to examine the definition of labor force entrance, its timing, and the relationship between job choices made and career planning.

LABOR FORCE ENTRANCE AND CAREER ENTRANCE

(a) Current Knowledge

The transition from the status of student to the status of worker is not necessarily a discrete and singular event. At any one time, one-third of male high school students (age 16+) are undertaking part-time work concurrently with full-time schooling (Westcott, 1976). In one longitudinal study of high school boys, more than three-quarters were employed during at least one of three separate interviewing waves conducted during their 10th, 11th, and 12th grades (Johnston and Bachman, 1973:52).

College students are also heavily involved in the labor force." A

third of full-time students are at work. A majority of full-time students in two-year colleges participate in the labor force, and their rate of participation is nearly twice that of students enrolled full-time in the first two years of four-year colleges. Four out of five part-time college men are also employed (U.S. Department of Labor, 1976:38-39).

From the perspective of employed workers, a high proportion of younger working men are also enrolled in school. For example, among employed men age 18-19, nearly one-third are also enrolled in school. (See Table 1 for additional data.) Between the ages of 16 and 21, at least 10% of each youth cohort is both enrolled in school and employed.

Table 1 About Here

An additional factor to consider is that a large and possibly increasing number of young people interrupt their schooling for full-time employment only to return subsequently to student status, either on a part-time or full-time basis. In a national sample of men aged 30-39 in 1968, Ornstein (1971) found that among white males who had left full-time schooling and entered the labor force for at least 17 months after high school graduation, 34% had additional schooling within 8 years. Nearly as many returned to school among those who dropped out after having had some collegiate experience.

Probably most of those who returned to school continued to participate at least part-time, if not full-time, in the labor force. In any case, a study of "first jobs after completion of schooling" (as the initial job was defined in the pioneering Blau and Duncan (1967) monograph), would ignore labor market experience before the final school leaving event. On the other hand, it is apparent that much teenage employment--

after school and summer jobs--are not regarded as career entry positions, and would be disregarded in the definition of career entry.

Voluntary and involuntary enlistment in military service also is an ambiguous event with regard to career entry. Even voluntary enlistees may regard their service obligation as being an interruption in their schooling and not the start of full-time, stable participation in the labor force. The relation of military service to career entry no doubt depends on the circumstances regarding military service that apply at any given moment; but also depends on other options the young person was considering at the time of enlistment (i.e., were options in the civilian labor market being considered?)

In general, any analysis of youth job-search activity should specify both a definition of career entry that categorizes particular job-search periods as pre-entry or post-entry and, in addition, categorize jobs taken in terms of their relationship to intended careers (i.e., career-related vs. temporary income-producing). While such specifications do not in themselves say much about the process of job finding, they are likely to be important contextual factors differentiating the job-search process among different groups of young workers.¹

(b) Needed Research

Our knowledge of the timing of labor force entrance and of career entry would be significantly advanced by some very simple tabulations of national sample data. We need several types of data: first, age- and sex-specific distributions across the various statuses that are defined

¹Prospective (and even short term retrospective) designs should obtain respondents' self-assessments of the connection between a given employment and occupational plans and thus segregate career jobs from non-career jobs accordingly in the analysis.

by combinations of the enrollment, employment, and labor force participation variables. Ten states, including, for example, "part-time student, part-time employment," can be identified.²

Such data should be retrievable from cross-sectional Current Population Surveys. Secondly, it would be useful to add the career-job relationship dimension to these tabulations; i.e., for those persons who are employed, are the jobs related to specific intended careers, unrelated, or are no particular career plans in existence. Such subjective evaluations are not part of any periodic national data collection effort at this time.

The next level of descriptive data that we need would describe changes over the life-cycle--that is, properties of the transition matrix for age-specific cohorts. For example, we have no idea what proportion of the part-time students/part-time workers at 18 years old become full-time workers or full-time students at 19 years old. Quarterly or annual measures of change would reveal the extent and timing of the instability of labor force participation that characterizes the transition period. These transition data could be retrieved from successive waves of the Current Population Survey so long as members of the panel can be identified from one data collection to the next.

Disaggregation of the transition process for different population subgroups defined by prior work experience and opportunities would be similarly interesting. How do the transition matrices for young people

²(1) full-time job, not enrolled in school; (2) full-time job, part-time or full-time student; (3) full-time student, part-time job; (4) full-time student, looking for work or not in labor force; (5) part-time student, part-time job; (6) part-time student, either looking for work or not in labor force; (7) part-time job, not enrolled in school; (8) not employed or enrolled, looking for work; (9) not employed or enrolled, not looking for work; (10) in military service.

of lower socio-economic backgrounds differ from those for young people of middle-class background; how do youth in small towns and rural areas differ from those in the suburbs and the larger central cities; are there differences by region of the country; are there differences based on the amount and types of previous experiences? Can the transition be described as a simple Markov chain or do prior transitions affect the likelihood of subsequent ones?

This stochastic perspective of the transition of full-time student to full-time worker would complement several projects in historical demography that have attempted to describe changes in the transition to adulthood in American society over the past century (Winsborough, 1975; Modell, Furstenburg, and Hershberg, 1976). And, a fuller knowledge of the distribution of particular age-cohorts of youths across the states, along with a fuller knowledge of transitions defined by employment, enrollment status, and job-career relationship, would help produce useful definitions of labor force and career entry points in the study of the career process in its formative stage.

Documenting the timing and duration of the transition sequence is a first step toward understanding other aspects of labor force entry: that is, variations in the timing of its occurrence for different people, the process by which first career jobs are obtained, and the specific elements of the job and the job-seeker which explain the allocation that occurs. The remainder of the paper will deal with these issues.

AGE OF LABOR FORCE ENTRY/EDUCATIONAL ATTAINMENT

a. Current Knowledge

Regardless of how labor force entry is measured and however non-career

jobs are distinguished from career lines, there are differences in the ages at which young people begin their occupational lives. There has been very little direct investigation, however, on the determinants of age at entry. But, there is an obvious association between age at entry and years of school completed,³ and there is a large body of data on the factors affecting educational attainment.

A variety of statistically sophisticated causal analyses has identified a number of variables as having the greatest impact, either directly or indirectly, on the number of years of school a person completes (Blau and Duncan, 1967; B. Duncan, 1967; Duncan, Featherman and Duncan, 1972; Hauser, 1973; Sewell and Hauser, 1976; Porter, 1976). Typically, the effects of general mental ability, father's educational attainment and occupational prestige, mother's education, parental income, and size of family (fewer siblings are better) are found to be important but largely indirect determinants of educational attainment. More immediate predictors that have generally been found to be important include secondary school grades, friends' educational plans, parental encouragement, and educational and occupational plans, the latter even measured as early as the ninth grade. Of these, grades and college intentions seem to be the best indicators of eventual attainment, at least for the panel of non-farm, white males from Wisconsin studied from the late 1950's onwards (Sewell and Hauser, 1976).

In addition, race and sex are important conditional variables which

³Ornstein found a correlation between age at entry and educational attainment of .89 for whites and .70 for blacks in his example of men born from 1929 to 1938.

affect the size of the causal effects of the other variables (Featherman and Hauser, 1976; Kerckhoff, 1974; Alexander, Eckland, and Griffin, 1975).⁴

Although the statistical elegance of this research tradition is unassailable, much of the analysis is based on complex motivational and attitudinal variables often measured with a single multiple choice questionnaire item. Also, some of the work has been contaminated by the retrospective measurement of general motivational variables (e.g., achievement motivation) on the assumption that such characteristics are invariant over time, a questionable hypothesis (c.f., Duncan and Featherman, 1972).

Besides school performance (grades or class standing), other school-related variables have been studied in the educational attainment literature. The curriculum chosen is obviously important, as it reflects a person's educational intentions (Alexander and Eckland, 1975). In addition, Kerckhoff (1974) found that participation in extra-curricular activities was associated with the educational attainment of 24-year olds, independent of school grades, SES, and I.Q. The Youth in Transition study (Bachman, et al., 1971) identified negative attitudes towards

⁴ Models of status attainment developed on white samples have generally explained smaller portions of variance in attainment of blacks. This seems to be because somewhat different processes are operating.

Kerckhoff found, for example, that for whites, SES or origin continues to have direct effects on attainment, as does earlier level of school performance (junior high); neither is very strong for blacks. Instead, absence of delinquency problems and high educational expectations lead to higher high school grades and it is high school grades that produce longer school continuation rates for blacks, far above any other direct influence.

Kerckhoff suggested that the status attainment process for blacks reflects more of a sponsored mobility system in which blacks who stay out of trouble and conform well in school are given extra attention by counselors and others.

school, self-assessed delinquent behavior at school, and prior grade failure as factors that--exclusive of correlated determinants--were also responsible for distinguishing among high school dropouts, graduates, and college attenders. However, structural characteristics of schools--class size, characteristics of the teaching staff, per pupil expenditures, etc.--seem to have very little effect on educational attainments six years after graduation (Jencks and Brown, 1975, using data from Project Talent).

The influence of the high school teacher as a "significant other" in the vocational planning of the adolescent has also been investigated in many of the attainment studies. Typically, the teacher's personal influence has been shown to be much less than that of parents and close friends. However, teacher influence appears to mediate the effect of academic ability while friend and parent aspirations are largely intervening variables explaining the effect of background socioeconomic status (Shea, 1976).

The attainment studies have measured occupational aspirations in terms of the occupational prestige of career goals, but only the Youth in Transition study has sought to incorporate other dimensions of occupational preference into an attainment model. The Y.I.T. study employed two scales of occupational values each year from 10th grade until one year past high school graduation. The "desire for job challenge" scale tapped the respondent's preference for employment that was intrinsically interesting and required effort. The "desire for job payoff" scale ranked respondents in terms of the importance they ascribed to extrinsic rewards of the job.

Desire for job challenge was positively related to educational attainment. Interestingly, those who entered military service began tenth grade

with a relatively low "job challenge" score but showed a steady increase throughout the next three waves and emerged with almost as high an average score as the college-going group. The 10th grade job challenge score was more strongly correlated with the respondent's status one year after high school than was his job challenge rating measured at the last wave ($\eta = .29$ vs. $\eta = .16$) (Johnston and Bachman, 1973). "Desire for job payoff" did not vary by later attainment status.

b. Needed Research

We have reviewed data regarding determinants of educational attainment in the absence of data that pertain directly to the determinants of age of labor force entry. We would anticipate that if data employing the "age" criterion were available, the results would be quite similar.

However, there are some difficulties with the status attainment literature. Such work, involving the broad strokes of a general achievement model, can only hope to scratch the surface of a complete explanation of why certain young people choose work and others choose continued schooling. For example, the particular job opportunities that happen to be available in the person's own information environment must certainly play a role in the determination to work or to continue schooling. We have no knowledge regarding the impact of differential information about particular job possibilities (or about the local labor market in general) on decisions to enter the full-time civilian labor force. Nor do we know the effects of different area-wide employer recruitment practices (e.g., the volume of employment advertising) or the causal effect of local market unemployment rates on the timing of labor market entry decisions.

Even many of the variables already included in the status attainment model require further specification. For example, the finding that "friends' college plans" has some net unique effect on educational attainment is enticing, but ultimately empty. A more thorough investigation would require knowing the mechanism by which peer influences get translated into decisions about labor force entry--which "closest friends" count? Is it the closest friend, the clique, or the peer culture that is significant? To what extent are peer effects due to direct communication and influence and to what extent are they due to the force of example?

Beyond the variables that have been included in educational attainment studies, a number of other specific individual-level variables may be suggested as determinants of the point of labor force entry: the degree to which people have well-defined careers (their vocational maturity) at a particular age; the degree of interest they have in temporary employment unrelated to career goals; their relative valuation of current and future consumption; their marital plans and family obligations; and their work-opportunities environment (number of jobs heard about in past month; proportion of five best friends who are employed, and so on).

A wholly different dimension is the calendar period in which labor force entry takes place, which will clearly act as a conditional variable affecting the importance of other factors. The decision to withdraw from school in the middle of a term is quite different from the decision to withdraw at the end of the school year, which itself is quite different from the decision to stop schooling at the conclusion of high school, junior college, or college.

In summary, the notion of the timing of a person's first job must be predicted and understood in a context of decision-making reflecting proximate and short-term phenomena within the person's social existence. To date there has been relatively little research effort along these lines.

THE CHOICE OF AN OCCUPATION AND A JOB

a. Current Knowledge

The age at which a person enters the labor force (and the level of occupational attainment) are of course closely related to the particular occupation that is entered. We have seen implicit reference to this in the fact that occupational aspirations and expectations, as measured by the occupational prestige of career goals, constitutes one of the basic causal antecedents in the status attainment model of educational achievement. Education not only constitutes a program of activities for a previously aspired-to occupation, but it sets a limit on the domain of occupations for which one may be considered eligible. On the one hand, further education broadens a person's general skills, thus producing a wider range of job options. On the other hand, beyond a certain point, schooling becomes preparation for a specific career, narrowing the range of occupations a person is likely to enter.

The reasons that people give for making the transition from student to worker are revealing of the nature of the association between the schooling function and its relationship to particular jobs and careers. In a study of adult men who entered the labor force more than thirty years ago, Lipset, Bendix, and Malm (1955) reported that nearly a majority of young men entering all classifications of blue-collar work (including

farming) said that they began work "because they were forced to (leave school)." The more common response among those whose first job was in business (high status) or sales (middle status) was that it was a decision to "voluntarily leave school." A still different response was most often given by those persons entering clerical (middle status) or professional-technical (high status) jobs: "completion of schooling." The comparison of these last two responses suggests that not only are differing entry points associated with different occupational statuses, but that dimensions of jobs other than status may be related to the timing and reason for entry.

The age and educational preparation at entry are, of course, only one set of the many factors that determine which job and which occupation a person will enter.

"Career development theory" is the name applied to efforts among vocational psychologists and educators to explain how individuals choose occupations and why they select and eventually enter different occupations. To the extent that selections of a job early in one's occupational life constitutes "entering an occupation," the work of these theorists may be helpful. On the other hand, the theorizing has had little empirical verification, necessarily longitudinal, that relates earlier career preferences and later actual job selection.

There are two main traditions in the career development literature: the developmental view (Super, 1974; Ginzberg, 1951; Crites, 1974) and the differentialist view (Holland, 1973; Roe, 1956). Both involve the construction of typologies and attempts to show their usefulness for understanding personality and behavior over time. The developmental perspective suggests that as young people pass through different periods

in their intellectual growth, they view the occupational choice problem from perspectives characteristic of that developmental period.

The theory suggests that as children mature they gain an increased understanding of how their own interests, abilities, and values mesh with the requirements of specific occupations in the real world. As a result, their vocational goals "crystallize"--that is, various alternatives considered become more "similar" to one another and to the person's own values and interests. For example, Super's stages include fantasy (age 4-10), interest (11-12), capacity (13-14), tentative (15-17), transition (18-21), and trial (22-24). Jordan (1974) suggests, though, that the increased reality of student aspirations as they grow older may be more a function of increased accuracy about the opportunity structure of occupations than it is increased awareness about how particular occupations mesh with pre-occupational interests.

The goal of the differentialist perspective is to specify a taxonomy of occupations that would be useful for explaining occupational choices of different individuals. Jobs, of course, can be classified in a variety of ways other than "status" and "income," the measures used primarily in sociology. One common term that is used to apply to many of these dimensions that cross-cut status is "occupational situs." The industrial classification system of the U.S. Census is one such dimension; another is the "people/data/things" classification in the Dictionary of Occupational Titles (U.S. Department of Labor, 1965). This is an attempt to score occupations with respect to the routinization (vs. complexity) of the work along three dimensions--in terms of dealing with people, dealing with data, and dealing with objects. Finally, one sociologist, Melvin Kohn (1969) has developed a methodology for examining the "self-direction

conformity" dimension to job tasks--the degree to which a job provides for, or even requires, individual judgment and freedom from supervision. A fairly thorough consideration of the ways of conceptualizing occupations can be found in Temme (1975). Among the vocational psychologists, the typology of occupations developed by Holland (1973) is perhaps the most widely known. Holland's premise is that job satisfaction and job stability are enhanced when there is a close connection between major elements of a person's personality and the performance requirements of jobs; furthermore, that persons with a given personality will tend to become employed and stay employed in occupations calling for consonant skills, interests, and preferred modes of dealing with the world.

Holland's system has six major classes of job performance characteristics--realistic (manual), investigative, social, conventional (clerical), enterprising, and artistic--along with six corresponding basic personality dispositions. Particular occupations and particular individuals are scored in terms of the primacy of these dimensions in their environments (jobs) or personalities (persons). For example, a physical education teacher is scored as SRE, meaning that "social" is the primary aspect of the job's routines and requisites, "realistic" is secondary, and "enterprising" is tertiary. Holland's classifications have been applied to all occupations in the Dictionary of Occupational Titles (Viernstein, 1972) and all U.S. census occupations (Holland, et al., 1973).

Empirical validation of the behavioral implications of Holland's scales is still quite weak, although much use has been made of them in measuring and studying occupational aspirations and personality characteristics. To date, for example, few studies have attempted to demonstrate

consistency between adolescent occupational aspirations and later career entry jobs or between the degree of such consistency and job turnover. Nafziger, et. al. (1974), using the third year of Parnes National Longitudinal Survey data found an association between current occupational aspirations and current job. However, the advantage of the longitudinal nature of this survey (i.e., to compare prior aspirations and subsequent job selection) was not used in this study.

One evaluation of Project Talent data (McLaughlin and Tiedeman, 1974) has examined 12th grade career plans and occupation and occupational plans eleven years afterwards. This study found that about 38% of the students followed up eleven years later were in fields (or had "occupational plans") that were in the same primary category according to the Holland categorization. This proportion was about double that expected under the assumption of independence for the two data-collection points.

Several research findings suggest that the association between career plans and jobs early in a person's occupational life may be rather weak. Rosenberg (1950) found that 60% of college students giving an occupational preference changed it within two years. Secondly, Lipset, et. al. (1955) found that for the majority of workers in their study, the job they took was the only job that was known about at the time they accepted employment. This same result has been reported elsewhere (Reynolds, 1951). Although these results are quite old, nothing to contradict their findings has appeared to date.

More recently, Roberts (1968) in a small study of young British workers concludes that the relationship between career goals and jobs is quite the reverse than is sometimes thought. "Ambitions," he suggests, "adjust to occupational changes, rather than changes being planned in order to realize previously developed ambitions." (p. 174).

He compared two cohorts of workers. The proportion of the younger cohort who had no expectations or plans to change their current occupation was much greater than the proportion of slightly older workers who actually experienced recent occupational changes. More changes occurred, then, than were anticipated. Ambitions, he says, are "anticipations of the direction that careers are going to take. They are products of occupations that individuals are in the process of entering rather than determinants of the patterns that careers take." (p. 176).

These conclusions make sense from another perspective. Certainly the degree of occupational information which young people have is limited. The division of labor has produced a multiplicity of occupations. Before young people can develop any firm and stable career goals, they must become aware of the precise sort of work (routines) that is involved and how one enters the occupation (requisites). Clearly, young people do not possess that kind of information about most occupations. The jobs that they begin to learn about are the ones which they become involved with in their own occupational and extra-curricular development. As their experiences accumulate, incremental decisions about job changes and job selection are made. Career plans made years earlier may or may not be largely irrelevant to these decisions.

Research is currently underway to fill in some of the information gaps with respect to the relationship between pre-occupational interests and vocational plans on the one hand and actual entry job characteristics on the other. One such analysis (Gottfredson and McDill, 1976) will employ the National Longitudinal Survey data in a multivariate study of social background, ability, education, teenage work experience, and job aspirations as determinants of entry job characteristics described

according to "situs" (Holland codes). The other work (Alexander and Cook, 1976) will examine an Educational Testing Service longitudinal panel from 9th grade through one and three years post-high school to compare pre-occupational interests and later vocational activities.

b. Needed Research

While this research is most important it would also seem profitable to develop a more comprehensive theory of job selection. The focus of this theory and subsequent empirical analysis should be on the determinants of the acquisition of a particular job with a particular employer rather than an "occupation" or "career."

In the search for predictors and determinants of job choice, personality characteristics and occupational goals and expectations certainly should continue to play an important role. However, these need to be elaborated beyond the typologizing that has been done to date. For example, the role of teenage work experience (or other pre-entry employment) on the situs of career entry jobs needs to be more fully explored. Similarly, the influences of "significant others," a factor included in status attainment models, should also be investigated more thoroughly. The specific mechanisms of personal influence on job choice--role models, direct encouragement, and influence in obtaining job offers--need to be evaluated to determine their relative importance in the job selection.

Along with the factors that relate to the direction of personal preferences, the opportunity structure needs to be considered in the same model. The breadth of information that people have about specific job vacancies at the time of the job-search has received little attention. Locational considerations (i.e., the geographic distribution of

work opportunities) have been prominent in the economists' examination of aggregate employment patterns, but not in models of individual job selection.

In general, we do not have a comprehensive model of job selection, neither for the general population nor for the young work force in particular. To construct such a model requires a thorough re-examination of the dimensions used for classifying jobs as well as inclusion of both personal preference aspects and structural opportunities as predictors of job choice.

JOB CHOICE AND RECRUITMENT BY EMPLOYEES

a. Current Knowledge

An important component--if not the most important component--of such a comprehensive model of job choice ought to be the behaviors engaged in by the recruiting employer and the job-seeker. The process of job search and employee recruitment lends a dynamic perspective to what would otherwise be a fairly static structural model.

Relatively little systematic research has been done on recruitment methods of employers. From the point of view of the employer, recruitment is one of the most critical aspects of management of the firm. Given the wide variation among potential job-applicants in terms of skill, motivation, and other aspects of performance quality and given the rigid seniority and job-protection rights that characterize much industrial, commercial, and governmental employment, it is clear that it is rational for an employer to make a heavy investment in the recruitment and hiring decision.

However, the problem is usually not one of finding enough applicants,

but one of narrowing the field of applicants so that intensive analysis may be made on a small number of at least adequately qualified people. Formal prerequisites are one means used to narrow the field of applicants. Also, employers are likely to use recruiting methods that will produce a small number of qualified applicants. Use of public or private employment services is one such method. Private employment agencies are a high-cost alternative. Low-wage employers may be forced to resort to these (Stigler, 1962), or any employer might in a tight market situation. On the other hand, reports from employers suggest greater satisfaction with private agencies than with public ones (Rees, 1966). Using informal information networks--for example, using referrals from current employees--is another method for getting a small number of qualified applicants.

Informal channels have the advantage of providing the employer with a quality and kind of information not available through other means--the applicant's reliability, character, personality, and so on.

The question remains, however, what patterns of recruitment do particular employers actually use? Until recently, the only significant study of employer recruitment practices was an examination of 340 firms in the Oakland, California area in the mid-1950's. Recruitment practices were found to vary by occupation and labor market circumstances of the industry (Malm, 1954).

Unions were the most frequent source of referrals for the hiring of manual workers. (Interestingly, a corresponding survey of job-seekers placed much more emphasis on informal contacts as the mechanism for finding these blue-collar jobs.) The high degree of unionization of the Oakland area suggests that the generalizability of this finding may be limited. Also, more than twenty years have elapsed since this study was done.

Direct hiring was the next-most-often used recruitment method. Large firms tended to use this method more than did small firms. Construction firms tended to make greater use of friends and relatives in recruiting.

Clerical workers were most often recruited through private and public employment agencies and next-most-often through newspaper ads. Salespeople were recruited both by advancement from within the firm and by direct application. Other than promotions from within, firms reported most managerial recruitment to be accomplished through personal referrals followed by school placement services and private agencies.

More recently, a fifteen city study of hiring practices of 447 inner-city employers was undertaken (Rossi, Berk, and Eidson, 1974). Unions played a very minor role in recruiting manual workers. The major recruitment techniques were using newspaper ads, asking current employees for referrals, and using public employment agencies. White collar vacancies were apt to be filled most often by private employment agencies and through want-ads.

Both of these studies depended on interview data with employers rather than on actual counts of recruitment behaviors. No studies have examined records of representative employees for actual recruitment behavior. Apart from the question of the quality of the descriptive information on recruiting, there are major gaps in our information. No study has focused on the effects of recruitment patterns on the proportion of young persons or new labor force entrants hired to fill particular jobs. (The Rossi, et. al. study did examine recruitment methods' effects on black application rates.) Nor has there been any investigation of whether age preferences of employers affects their recruitment practices. Gannon (1971)

studied how one firm's recruitment methods to find particular employees were associated with employee stability. Recruitment through informal channels, recruitment of former employees, school referrals, and direct applications resulted in lower turnover; use of employment agencies and newspaper ads, in higher turnover. However, this type of analysis has not been done for any group of young workers, so far as is known. Finally, there is virtually no work that comprehensively explains the variations among different employers' use of different recruitment techniques for the same industry/occupation-specific jobs, either with respect to youth employment or for workers in general (Ericson, 1974).

Turning now to the other side of the equation--the job-search--there are several dimensions to be considered. The first is the duration of the search. The duration is a function of the amount and variety of job-search efforts undertaken, the market demand for the applicant's labor, the number of job offers entertained, and the selection criteria used by the job-seeker.

The economists' models of job search are reasonably sophisticated, but based on a single criterion--that the choice of a job is made solely in terms of its wage rate and those of other potential jobs. The models are concerned with various factors--such as time costs, risk aversion, duration of the availability of the offer, and so on--that predict the "shopping" strategy a rational job-seeker will employ in order to find employment at highest wage and at lowest cost. (See Lippman and McCall, 1976, for a summary of job search strategies and references.) The testability of these models has not been very great, and their applicability to the study of the choice of particular jobs is limited.

Surprisingly, considering the high unemployment rates of young men,

the duration of any given period of unemployment for teenage workers tends to be quite brief. In a special survey of job-search conducted as part of the Current Population Survey in 1973 among currently employed workers, the teenage group experienced by far the shortest period of job-search of any age group shown. Sixty-six percent of the teenage men found their current job within 5 weeks as opposed, for example, to 55% among men 25 to 44 (U.S. Department of Labor, 1975:47).⁵ Much of their high unemployment rate is a function of the short duration of specific jobs, which results in their having a greater number of job-search periods than do older workers. In addition, there is continual withdrawal and re-entry into the labor force as their primary activity changes between employment and schooling.

Most young people looking for work--as indeed most job-seekers in general--accept the first job offer they receive. The Current Population Survey referred to above, for example, found that only 23% of male teenage job seekers reported refusing a prior job offer. Overall, 32% of the job-seekers in this study said they turned down another job. That most workers take the first job offered and do not evaluate several alternative jobs may be a function of the low variance in wages offered by different potential employers relative to the cost of continuing the job search (Stigler, 1962).

This result also suggests one of two things: either people's job search processes are fairly well directed, producing firm job offers only for those jobs consistent with the job-seeker's career goals and meeting his other criteria, whatever they may be; or alternatively, job-finding is

⁵Time spent looking for work while previously employed is included in these figures.

highly undifferentiated, not closely related to any vocational planning effort, and subject much more to the locational distribution of opportunities and the job-seeker's position in the social network of job availability information.

The latter perspective is supported by the findings of an early major investigation into employment structures, Reynolds' The Structure of Labor Markets (1951). Reynolds found that among working class youth destined for blue-collar jobs, the process of job-finding was not so much one of choosing a job within an occupation, but one of drifting into employment. There was little "comparison shopping," so to speak. Job-finding was primarily through relatives or acquaintances about jobs available at their own place of employment or elsewhere, or through their own prior part-time employment experiences (Reynolds, 1951:129).

Economists like Reynolds have expressed concern that such a system for allocating jobs to inexperienced workers is not as economically efficient as one which involves the use of formal channeling mechanisms such as public employment agencies and school counseling services to match abilities and interests of applicants with the requirements of particular jobs. As a result, there has been great interest in the degree to which different groups of workers make use of "formal" vs. "informal" mechanisms of job-search and the consequences of such job-search strategies for job quality and job stability. Thus, the question of "how people find work" has been redefined more narrowly into the question of what "methods" each person uses to learn about job vacancies and which particular "method" was used to find out about the job that was obtained.

Two major national surveys have included job-finding methods in

their investigation of labor market activity. One of these, the January, 1973 special supplement on job-seeking methods of the Current Population Survey, is the only substantial nationwide effort expressly devoted to the study of the job search process. The other national job-finding data come from the National Longitudinal Study of the U.S. Department of Labor conducted at the Ohio State University by Herbert Parnes and his associates. This survey covered a variety of aspects of employment behavior--including job-finding methods--for four broad cohorts of adults, including a cohort of young males, aged 14-24 in 1966 who have been followed through annual personal interviews over a nine-year period. Although both of these surveys have their limitations, they constitute the best available data to date on job-finding methods used by young workers.

The Current Population Survey study covered the approximately 16 million persons who found work during 1972 (U.S. Department of Labor, 1975). The data were obtained by a mailed survey with follow-up rather than by personal interview, which limits the reliability of the information. Published information about job-finding methods is limited to two-thirds of those job-finders who reported that they had "(spent) any time looking for work before starting on (their) present job." The remaining one-third of the job-finders checked one of the "no" responses, such as "I was offered a job without looking for it," or "I returned to a job I once held before," or "No--other reason." Unfortunately, there were no follow-up questions to prevent a disproportionate number of job-finders from wrongly selecting themselves out of the subsequent questions. Thus, the precise definition of the population completing the remainder of the questionnaire remains unclear.⁶

⁶The original CPS data including the non-searchers is available but, as far as is known, has never been examined.

For those job-seeking job-finders who were included in the study population, a variety of job-search information was obtained. Nearly 50% of the job-finders/job-seekers were under age 25. Of those in the 16-19 age-bracket, about 62% of the sample were either new entrants or re-entrants to the labor force at the time they began looking for their present job. Altogether, 31% of this age-group were in transition from school to the labor force while 19% sought their current job while remaining in school. Table 2 shows additional details given by the respondents concerning their "reasons" for looking for work during 1972.

Table 2 About Here

Twenty different job-search methods were enumerated in the CPS questionnaire. They include:

- applying directly to an employer without suggestions or referrals by anyone;
- asking relatives about jobs where they work;
- asking relatives about jobs elsewhere;
- asking friends about jobs where they work;
- asking friends about jobs elsewhere;
- checking with the State Employment Service;
- checking with private employment agencies;
- answering ads in a local newspaper;
- answering ads in a newspaper from outside the local area;
- placing ads in a local newspaper;
- placing ads in a newspaper outside the local area;
- checking with a labor union hiring hall;

taking a civil service test or filing an application for a government job;

contacting an organization, such as a community action group, Urban League, Welfare Agency, etc.;

contacting a school placement officer;

asking a teacher or professor for job leads;

answering ads in professional or trade journals;

placing ads in professional or trade journals;

going to any special place or street where employers come to pick up people;

using any other method to find a job.

This list, although longer than most, is typical of the categories that have been used in nearly every study of job-search methods. Often, however, the methods have been combined into three broader categories: formal channels, informal or personal ones, and direct application. Formal methods involve the use of an institutional intermediary. The most commonly employed formal mechanisms include the use of want ads, public and private employment services, schools, and unions. Informal methods primarily consist of contacts with friends, relatives, and former and current job associates. Direct application to firms is sometimes classified with "informal" methods but would seem to be best separated for analytic reasons. Direct application resembles informal methods in that there is no institutional intermediary. On the other hand, it resembles formal methods in that the access to job information is not so much a function of location in the social network of job information, a factor which clearly distinguishes the informal methods (friends, relatives, job associates) from the others.

 Table 3 About Here

As shown in Table 3, the teenage men in the CPS sample (ages 16-19), and to a lesser extent the slightly older group (20-24), differed from the full adult sample in their job-searching and job-finding methods in a number of ways. (Only the most commonly used methods are shown.)

In terms of the job search itself--that is, effort irregardless of success--teenagers and young adults were more likely to ask friends and relatives about jobs than were older people. Local newspaper ads were a decidedly less popular information channel for teenagers than for young adults or older workers, with less than 40% reporting having used want ads at all in their job search.

Besides asking friends and relatives, the young generally chose direct application at a place of business without prior intervention or suggestion as their preferred method of looking for work. While this method was also the most common one used among older people, the older group made use of formal channels of job-seeking--both newspaper advertisements and employment agencies--more often than did the teenagers. Only with school placement services were the teenagers proportionately represented among users of formal mechanisms of employment allocation, and even there only 12% reported having used such services.

The pattern of job-finding methods--the search methods that actually led to employment--was similar. Direct application more frequently led to a job than did any one of the personal methods, although, in combination, use of personal contacts was a more frequent job-finding method than direct application for teenagers. It was not more frequent, however,

for young adults nor for adults in general. Newspaper ads led to jobs for only 6% of the boys while it was the job-finding method for more than 10% of the men in general. Girls did not differ from older women in this respect.

Effectiveness of various job-finding methods has been most often measured as the proportion of all users of a particular job-seeking method who obtained their employment through the use of that method. While relatively easy to obtain, this measure suffers from an obvious problem--it ignores the varying frequency with which different methods are used by the same job-seeker. There have been other measurements used in an attempt to include this variable. An alternative definition measures effectiveness as the ratio of successful use to all occurrences of use. However, this definition presents enormous data collection problems. Hilaski (1971) defines effectiveness as the proportion of workers using a particular technique "most frequently" who obtained their job in this way. Ideally, one would wish to include elements of cost and effort (time, money, effect on personal relationships) in the study of the "efficiency" of different job-research methods.

Two effectiveness measurements can be calculated for the data presented in the CPS published reports. Age and sex-specific efficiency rates can be calculated in terms of the proportion of users of a given method who found a job through that method. There are shown for the most common methods in Table 4. Also in Table 4 is a second efficiency measurement--calculated for both sexes in the age-groups shown because

Table 4 About Here

data were not available by sex. This was the ratio of job-finders by a

given method to persons who said that the method was the one they most frequently used to find work during this job-search period. (This is not the same as the Hilaski measure defined above because it includes persons finding a job through a given method even though they did not use it "most often.")

The two effectiveness statistics produce interesting differences both for the teenage group and for the full sample. The first measure (proportion of users successful) indicates that direct application is the optimum method, with school agencies and friends' place of work a distant second for males and private employment agencies a clear second for females, both younger and older. The other measure--based on comparing successful users to frequent users--shows the informal techniques, particularly those involving relatives of the job-seeker, to be the most fruitful methods of job-search. Hilaski also found that limiting the denominator to frequent users of the method showed the superiority of informal methods of job-search relative to direct application.

Other published results from the CPS job-finding survey included several tabulations of items by age. Teenagers in the sample spent about the same number of hours looking for work as the average job-seeker, nearly two-thirds reporting that this activity took up less than 5 hours per week. Farthest distance travelled to look for work was lower for teenagers than for older persons with nearly a majority reporting 10 miles or less as their longest job-seeking trip. A majority of teenagers found their current job within 5 miles of their residence, a third more than in the full sample.

The information concerning job-finding methods that is present in the first several years of the U.S. Department of Labor's National

Longitudinal Study (N.L.S.) has been analyzed by Saunders (1975). This report followed the sample of 5,225 boys and young men ages 14 to 24 for four years beginning in 1966. Non-response over the four waves was modest with about 20% of those eligible on the fourth wave (1969) being lost to follow-up, for the most part due to their current status as enlistees in the military service. (Fourteen percent of the eligible sample were in the military at year four.)⁷

The survey gathered job-search information in several contexts. The method by which the respondent's current job was found was recorded at each interview as was the job-finding method for jobs held during senior year of high school (for grades up to 1966 with jobs--about 1/6 of the sample). In addition, job-finding method for first job after full-time schooling was recorded as were job-search methods for persons who looked for work during the four weeks prior to each interview (obviously a small sample, even when all four years are combined). Finally, the data contain job-seeking methods for youth without prior work experience in 1966 and prospective methods of search.

⁷The sample was stratified by the racial composition of sampling units with about 1500 blacks being included in the initial sample. The sample is also heavily weighted with younger members of the 14-24 year old age cohort, with a majority being 14-17 at the first interview. The sizeable drop in the size of the age cohort from the high school to the post-high school group is probably caused by several factors: the age distribution of the military population who were excluded from the original sampling frame, age bias in the initial non-response group (8% of the original sample), and possible inadequacies of the sampling procedure. The proportion of blacks in the sample declines from about 30% in the youngest groups to 20% among those 22 and over. It is unclear how much of this is due to differential non-response rates (primarily inability to locate) and how much is due to the racial composition of the military and civilian institutionalized population who were excluded from the sample. Difficulties in the use of the data sets produced from these interviews are discussed in detail by Saunders (1975:119-123).

Saunders focused on the job search methods leading to the current job at each interview. He presented results for separate years, following the cohort as it aged. In general, the responses at the different interviewing points were similar. In each case, the friends and relatives category dominated the others, declining only from 50% for the most recent job at the first interview to 44% for the fourth interview's most recent job. Direct application to employers was the job-finding method in from 20% to 30% of the cases with increases from years one to three, followed by a decline at year four. The non-formal job-finding mechanisms, then, constituted about 70% of the total responses. Use of friends and relatives was most common among younger age groups who had not completed college by the fourth wave of interviewing. It was least common by the college graduates who were older to begin with.

The longitudinal nature of the Parnes data enabled Saunders to examine the consistency of job-finding methods used by the same respondents over two job searches. The data (shown in Table 5) suggest the strong pull of using direct application and informal contacts on the second of two job-searches, regardless of the method used to find the prior job.

Table 5 About Here

The only other successful job-search method that produced a high proportion of "repeaters" was newspaper ads. Among those using this method to find their prior job, a majority used it successfully a second time. This was a higher rate of repeating than that obtained by the use of informal personal contacts. The N.L.S. data, however, do not contain information about job-searching methods that did not lead to

employment; thus, it is unclear to what extent people relied primarily or exclusively on the same method that brought them success in their prior job search.

Differences in job-finding methods among groups of young men defined in terms of their social attributes were also tabulated for the National Longitudinal Study by Saunders (1975).⁸ Blacks and whites generally show similar patterns of usage of job-finding methods--with a number of exceptions. Blacks make greater use of the public employment service while a higher proportion of whites successfully find jobs by using newspapers, private agencies, and multiple job-finding methods. Even with social class (father's occupation) controlled, the racial differences--although small--remain for public employment service usage (blacks) and job-finding through newspaper ads (whites).

In general, social class differences were not large. Direct application is used slightly more by youth from working-class backgrounds while jobs found through school employment services are reported more frequently by young men from higher status backgrounds. In every race-class defined group, however, the primary job-finding method is through friends or relatives and the second most successful method is direct application. All others claimed less than 10% of any category of the sample.

Several results relating age to method used are worth noting. Along with the expected sharp drop in the use of school services after

⁸ Because Saunders reported his results separately for each year of the four years of data collection, relationships which appear in one administration often fail to appear in a subsequent year. The text contains some interpretations of the published results that were reasonably consistent across the different waves of interviewing.

age 21, there are similar declines in the reliance on personal contacts for job-finding. The slack is taken up by a variety of methods--slight increases showing up for public and private employment services, direct application, the use of want ads, and use of multiple methods leading to the obtained employment (Saunders, 1975: chapter 6).

Differences also exist in job-finding methods by years of school completed. Among whites there is a large decline in the use of informal contacts with increasing educational attainment. The longer-schooled whites make more use of formal channels--school placement facilities mainly and private employment agencies to a lesser degree. Blacks show a smaller decline in the use of friends and relatives, but also a decline in direct applications. Among blacks, higher education is related to much more frequent use of both school facilities and public employment services.

The N.L.S. data set contained information on measured intelligence, cultural exposure at age 14 (newspapers, magazines and library cards), a brief test of knowledge of job requisites and routines, and a personality measurement of sense of destiny control (Rotter internal control scale, abbreviated). Formal techniques of job-finding were more frequent among youth with greater cultural exposure and among those with greater world of work information (even with education controlled). There were no differences for the I.Q. measure or for internal control. The associations were particularly strong among black youth where in 1966, for example, 9% of "low" world-of-work information blacks used formal job-finding methods but 34% of "high" information youths did so.

There were some differences in job-finding methods according to the

occupational classification of the position obtained. The "other" category--representing both unclassified job-finding methods and the use of a chain of methods for obtaining a single job--was prevalent among those youth who found managerial and professional positions. In these groups the "friends and relatives" category was also less prevalent than elsewhere, suggesting perhaps that it may have been a combination of informal channels of job information plus direct application and use of formal intermediaries that led to job-finding for these higher level positions.

Newspaper ads were more common for jobs in the lower-skilled white-collar area. School placement services were particularly important for professional-technical jobs but also for jobs in the "service" classification. The use of friends and relatives to find jobs was particularly common among youth finding machine operative and laboring positions, where a clear majority reported this method to be the way they obtained their job. The informal contact method was also important for sales-workers and other blue-collar jobs, blacks particularly finding the method useful for obtaining service jobs. Direct application showed relatively constant use across the occupational categories. These relationships stood up generally when controlling for years of school completed (Saunders, 1975: tables 141-145).

Some questions exist regarding the consistency of the findings of the Current Population Survey study and the National Longitudinal Study. A comparison of descriptive statistics from these surveys (see Table 6) suggests that differences both in the definition of the study populations and in the data collection methodologies used contributed to moderate-to-sizeable differences in the distribution of job-finding methods.

Table 6 About Here

Greater use of personal contacts was reported in the N.L.S. study, which used open-ended questions, even though the C.P.S. study had four fixed-choice responses that were combined into the personal contact category. The higher use of personal contacts by the N.L.S. sample youth is probably accounted for by the omission from the C.P.S. data file of those people who found jobs without a period of job-search. That group is likely to include an extremely large proportion of people who found their job by means of a personal contact.

There are, however, some other differences between the two surveys that cannot be explained on those grounds. Principally, these are with respect to the use of newspaper ads (C.P.S. reported greater use), school placement offices (N.L.S., higher frequency of use), and both public and private employment agencies (C.P.S., again, greater use reported).

The differences between these two national studies reflects the variety of results concerning job-search methods that have appeared in the literature since the 1950's. Most prior studies, such as the Reynolds study in New Haven in 1949, have used more narrowly defined industrial populations. Reynolds (1951) found, rather than decreased usage of personal contacts with increasing social status indicators, that young men whose fathers had high-level blue collar jobs were more likely to use "friends and relatives" and less likely to use direct application than were sons of lower-skilled blue-collar workers.

Most of the prior work has found more frequent use of personally known intermediaries by the younger cohort than by older adults, a result

paralleled by the C.P.S. data. In fact, most other work has found greater use of informal information channels than appeared to be the case in these national samples. (See the summaries of earlier work in Saunders, 1975: 93; see also Foote, 1973 and Lipset, et. al., 1955, in whose studies informal contacts accounted for a majority of job placements.) Effectiveness measures, which in the C.P.S. study seemed to favor direct application, elsewhere have been found to recommend informal contacts as the "superior" job-finding technique, even where used less often than others and where not experienced as superior by the people involved (Sheppard and Belitsky, 1969).

In summary, despite the large variety of descriptive investigations of job-search and job-finding methods, there is still no consensus on the relative use and effectiveness of formal intermediaries, direct application and informal personal contacts in the job-search process--not only for young people, but for adult workers in general.

Most studies that have included a methods-of-job-search description have not further examined the details of the job-search, but two studies have probed more deeply into the precise path by which a job vacancy becomes filled by a particular job-seeker. Neither, however, focused particularly on the young worker, one having only 88 previously inexperienced workers in its sample and the other being a sample of workers in high-level occupations who had recently undergone a job change.

The former study (Foote, 1973), was conducted as part of the 1970 Detroit Area Study, an omnibus survey of males in the Detroit area. The interview probed into personal contacts involved in job-acquisition--whether the tie was through work, family, neighborhood, or other personal association; the frequency of interaction between the job-seeker and the

contact at about the time the job-related information was passed; the subjective "closeness" of the relationship; the occupational prestige of the job contact's occupation; whether the job was located where the job-contact worked; and whether personal influence was used to get the worker hired.

Perhaps the job-finding process is examined most thoroughly in a study of a small sample of professional-technical and managerial workers in a Boston suburb (Granovetter, 1974). Granovetter challenges the notion that a rationalized society is moving towards allocation of employment by formal means. Furthermore, he claims that job-search through the interpersonal transmission of job-vacancy information is likely to yield better quality and more satisfying employment for the worker--especially if he or she is able to make use of a broad enough network of acquaintances with informational access to a wider range of job opportunities. In addition, Granovetter suggests that occupational contacts are generally superior to social ones, that a network of "weak ties" or non-overlapping personal ties is better than a tight-knit circle of mutual acquaintances, and that shorter information chains leading to jobs are superior to longer ones, since the degree of confidence of the employer is cut substantially when there are multiple intermediaries.

He predicts--and generally supports with his limited data--some additional associations; that people who are looking for work will generally find better jobs if they come upon their job information by happenstance rather than by direct inquiry; that people who work in larger firms are more likely to find employment through personal contacts; that people who find jobs by personal contacts are less likely to be dissatisfied (explained by the entree into the social and friendship

circles of the workplace which personal contacts often bring); that newly created jobs are more likely than vacancies to be filled by personal recommendation (the person's availability is the cause of the position's existence); and that where a person is under more time-pressure to find employment, job-search will be more likely made through personal friends, but where speed is not of the essence, the network of work-associates will be more likely to be employed in the job-search.

Finally, Granovetter discusses many of the individual cases in his sample in terms of the precise relationship between the contacts and the job-seeker. Of the family-social contacts, about half were relatives or friends of relatives; many were former fellow classmates; and some were friends from old neighborhoods, friends of friends, or current neighbors. For younger workers, an important channel of job-information came through older siblings--most often particularly through their sibs' friends.

Of the work contacts, there were those who worked in the same company at the time of their first meeting who had preceded the job-seeker in taking new employment, but there were just as many who had never been a co-worker but with whom the job-seeker had had business dealings. Often, the former co-worker was now the employer.

While the results of Granovetter's study may not be generalizable to young workers of varying educational credentials and social backgrounds, his work has suggested the direction which the study of the process of job-finding should go. In the next section, we will discuss other aspects of the problems and tasks that researchers face in this area.

b. Needed Research

Our understanding of the process by which young people find jobs

has reached a point where both refinements of earlier work and elaborate extensions into unexplored areas appear to be necessary.

Although we now have comprehensive representative data on job-finding "methods," there is concern about the reliability and meaning of the data. First, there is the question of the adequacy of the definition of the population that has been covered by the major job-finding studies. Omission of military enlistees is one such problem. In addition, and a more major difficulty with current data, is the omission of "non-job-seekers" in the job-finding tabulations contained in the C.P.S. study.

It is not likely that the amorphous dividing line between making a haphazard effort to find work and having a job offered without actually "looking" was reliably adhered to by the respondents in this survey. Nor, would it seem, is this distinction a very useful one to make. All people "at risk" of finding new jobs--even those currently and stably employed--should be included in a study of job search. This would help us know the extent of consideration of job changing that goes on in a given cohort. Thus, future work should be more comprehensive in its coverage of the youth population.

Secondly, increased attention must be given to the design of questions regarding job-search methods. Question wording and format are likely to affect the distribution of job-search methods responses. The C.P.S. study employed a check-list of twenty methods, without elaboration or probing on any "yes" answer. Asking for "instances" may eliminate some frivolous over-reporting of certain methods. The N.L.S. study's job-finding and job search questions were open-ended with coding categories marked on the form for the interviewer. Underreporting is possible in this case, along with a reduction in the number of complex chains of

"methods" used to find a single job. The coding methodology employed in this study also hampered discovery of the variety of complex (multiple method) routes by which jobs were obtained.

Future work is also needed to improve the categorization of methods that is typically used. Finding employment is a far more complex system of action than that described by a list of ten or twenty "methods" of job-seeking cross-classified by proportions of persons using each method.

A job seeker may make direct application to an employer, for example, for many reasons--because of product familiarity or company advertising, because of locational availability, because the applicant knew other people employed there or previously employed there, because of the imputed relationship between the firm's activities and the person's career plans, because of an impression that the firm often hires young workers, because of knowledge of the hours, working conditions, and job tasks performed, and because, although not specifically told to apply, the encouragement of offhand commentary by an acquaintance may have led the job-seeker to make the effort to apply.

In a similar way, the use of "friends and relatives" could involve little more than going to a work-site because of a friend's suggestion or it could mean that the friend was in a position to make the hiring offer. The friend may be someone no more knowledgeable about job opportunities than the applicant, he may be someone with a specific range of highly rich information (a well-placed employee of a company), or he may be a person much more widely knowledgeable about the labor market. He may be a close relative or a passing acquaintance or even a stranger only encountered because of a mutual acquaintance. He may even be a fellow job-seeker passing on helpful tips. It is clear that such

categories as "direct application" and "friends and relatives" are both heterogeneous within and over-lapping at their common edge. Coding responses into such broad categories intended to be definitive but without probing for details would appear to be both unreliable and wasteful.

Depending on the recording method used (e.g., self-report checklist or open-ended interview item), the interpretation of a particular job-finding process may be subject to the weight that the respondent or coder puts on (1) the initial information acquisition or (2) the actual application effort. This confusion is particularly great for those cases where the information source was a friend or relative but where this did not directly lead to a job application and hiring decision (Schiller, 1975). More educated people, for example, may feel that they would have gotten their job anyway, by finding out about it through another source (thus responding "direct application"). Less educated people, lacking that self-confidence, may regard the information source as the critical element. Obviously, in order to make such categorizations reliable, more detailed questions need to be asked in these surveys. In addition, ways must be found to preserve the detail obtained for more fruitful analysis of the job-search and job-finding process.

Apart from the "method" of job search, there are other areas that current research has hardly touched which should prove useful in understanding the job-search process. First, we have little knowledge about the intensity with which each method is used (even the C.P.S. study did not ask this). Even the number of specific jobs actually applied for, the number of people talked to, the number of want-ad sections examined, and so on are not known for any representative sample of job-seekers.

Besides questions about the adequacy of descriptive data on intensity of search, there are questions about the association between intensity and other factors such as breadth of search and duration of search. Do people who look more resourcefully for jobs use a wider variety of methods and use them more intensely, or are there separate clusters of job-search methods specialists along with generalists who make a broad but no more intensive search?

Does intensity increase and then decline with the duration of unemployment or is there some other pattern? Does the relationship between intensity and duration vary for different groups according to their prior job experience, educational credentials, race, or sex? In what ways does rejection of an application and the method of rejection affect the intensity of further job-search efforts?

The duration of a given job offer may also affect the search intensity. Do people look harder just after they receive a job offer they are considering in order to find a comparison offer before the first one is closed off to them? Do offers with a briefer life result in a higher proportion of acceptance? In summary, the intensity of job search and its potential correlates is one area that has yet to be explored even to the extent that job-search methods have been.

Another major area that has seen little data emerge to date is the question of the breadth of the job-search across different occupations, different industries, and different conditions of work. How specialized are job searchers--particularly young ones? From the career theorists' perspective, the job search should be relatively focused. Other analyses, as we have seen, have taken the opposite viewpoint.

However, research to date has not inquired about the activity by job-

searchers that did not lead to employment. For what jobs were applications made or at least investigated? For what job opportunities was relevant information ignored? In what ways did these two groups of job possibilities differ--industry, size and degree of hierarchy of firm, location, occupation, wages, specific tasks to be performed, hours, age-relationship of co-workers, and so on. Obviously, such detailed information may be time-consuming and even difficult to collect, but it would help answer the major question concerning the directedness of the job search process among young workers and specific subpopulations of them.

Another neglected area--although again one probably difficult to research--concerns the labor market information possessed by young job-seekers. Measures of general occupational information have been used in a number of studies of youth (U.S. Department of Labor, 1970; Johnston and Bachman, 1973), but these general information measures do not contain questions related to knowledge of available job opportunities in the job-searcher's immediate environment.

It would be useful to know, for example, whether young people looking for work knew the names of the major employers in their area and whether they knew the location of public employment services. Can they give estimates of the number of firms advertising in local papers under relevant occupational categories? Answers to these and other more situation-specific questions would give a clearer picture of the relevant labor-market information that young job-seekers have.

So far, the research questions that we have proposed are mostly static ones--intensity and breadth of job search and breadth of labor market information. A complete understanding of the job search process, though, would require us to understand the dynamic properties of the

search--how intensity and breadth of search vary over time. We have already suggested some features of the relationship between intensity and the duration of the search that may be useful to study. The variety of dynamic questions dealing with the breadth of the search is even larger and probably of greater value.

For example, we do not know whether there are systematic changes in the way the people look for work as the duration of their unemployment increases. Most young job-seekers do not use formal channels of recruitment (want ads and agencies). Do they begin to do so after longer periods of unemployment? Is direct application tried first followed by asking personal contacts, or does the reverse pattern occur more often? What occasions a change in technique, if there is one--rejection of applications, the development of opportunities, or something else? Is there an increasing homogeneity in job-search methods over the duration of the search, or do people begin to try more methods of finding work?

Secondly, there are parallel questions about job situs--both in terms of industry and in terms of occupation. As the duration of unemployment increases, to what extent is there increased variety in the kinds of jobs sought? For example, assuming the career theorists' classifications work reasonably well for the consistency of jobs sought at the beginning of the search, how closely do they match actual applications as the search continues and how closely do they match the job actually found? Does the degree of association between occupational aspiration at the time of search and job actually obtained diminish with the duration of time required to obtain it?

Also, as the job-search continues, are there certain types of

occupations--for example, storeclerk jobs, military service, and so on--that are more likely to be considered and chosen regardless of their association to prior career goals? It is plausible that as the search continues, jobs that are more readily available become more widely considered, regardless of their association with the job-seeker's aspirations.

Finally, we might consider the effect of the job search itself on people's knowledge of job finding. Does additional learning about job finding take place? Is this learning related to speed of finding employment, intensity of search, or homogeneity of methods of search or type of jobs sought?

The kinds of questions that we have been discussing are certainly not easy to answer. Attention must be given to the means of collecting such detailed data, reliably, on a large enough population for conclusions to be generalizable.

One method that might be considered combines the limited duration of the retrospective study with the higher reliability of prospectively gathered data. This procedure involves a cross-sectional personal interview survey of the youth population combined with frequent periodic reinterviews by telephone with selected portions of the original sample.

The telephone interviews might occur on a monthly basis with even more frequent interviewing (weekly) for people actively looking for work. This procedure of telephone reinterviews and especially frequent reinterviews for people particularly of interest has been employed in other studies, notably consumer attitude studies (Schmeideskamp, 1962) and studies of pregnancy (Mooney, Pollack and Corsa, 1968). A diary procedure has also been recommended for obtaining detailed data over a brief period (Carlson, 1974; National Center for Health Statistics, 1972; Sudman, 1974)

but this procedure would seem to be less useful for the kind of information needed here.⁹

The reactive effects of such a prospective investigation would have to be considered. Perhaps this could be done by using a control group given only an initial interview and a follow-up a year later. Duration of periods of unemployment might be seen as the criterion of whether the constant reinterviewing had an effect on the job-seeking activity of those interviewed.

The sample size of such an investigation would certainly have to be large. One way to limit the sample size for reinterviews would be to assess the likelihood of each respondent's probability of being on the job market during the next year on the basis of his current labor market and educational status, his background characteristics, and his expressed educational and occupational goals. On the basis of this information, the sample could be stratified according to each person's predicted likelihood of being a job-seeker, those with greater likelihood being oversampled and those least likely to be job-seekers being undersampled.

CONCLUSIONS

The transition from adolescent student to adult member of the full-time labor force is a problem area that many research panels and conferences have suggested is in need of much research effort (Princeton University, 1968; Coleman, et al, 1974; National Commission for Manpower Policy, 1976). This is particularly true, it is thought, because young people

⁹It would seem that the subject-matter of job-search might be one that many people would like to talk about, even to a non-assisting source such as an interviewer. Diary procedures might be employed among respondents reluctant to discuss their job-seeking so frequently with an outsider.

in today's society are insulated from productive enterprise during adolescence, receiving most of their experiences of the world of work vicariously rather than personally (Coleman, 1972).

One primary question needed to be answered in this research effort is how young people actually make connections with employers and become members of the paid labor force. To date, our knowledge has been limited to three general areas: We know the general role of background factors, ability, performance, and--in a rather undifferentiated way--personal influence on the age (or at least grade level) at which young men detach themselves from the role of student and (presumably) enter the labor force. We know that people can be categorized as having tendencies to aspire to certain types of occupations that in a broad way, are related to their personality dispositions. (We do not know whether they actually attain those occupations.) Finally, we know that young people, even somewhat more so than older workers, find jobs primarily through the assistance of acquaintances and relatives and by direct application to employers without assistance of third parties.

But much beyond that we cannot go. This paper suggests some of the routes that further investigation should take: age/SES/race/education-specific distributions and transition rates across the various categories of full- and part-time schooling and simultaneous employment; longitudinal studies of preferences that include later actual job outcome characteristics to test the assumption that career aspirations help to explain the allocation of different jobs; data on recruitment methods used by a nationally representative sample of employers--data based on actual behavior and data from which we can determine how age-specific preferences

for employees affect the recruitment patterns used; and more elaborate study of the process of job-search, including special emphasis on patterns of job-seeking across occupational situations, heterogeneity of methods of job-search, and the relationships among duration, intensity, and methods of search.

Further research in this area will no doubt be costly. The potential exists to reduce the vast inefficiencies and inequalities that are part of the labor market entry experience, but we do not even know many of the basic facts regarding how that experience is accomplished.

TABLE 1
EMPLOYMENT AND ENROLLMENT STATUS
OF MEN AND WOMEN, 16-24, IN CIVILIAN NON-INSTITUTIONAL POPULATION
OCTOBER, 1975

Age	Sex	Proportion Enrolled in School	<u>Among those Enrolled</u> Proportion Employed	Proportion Employed	<u>Among those Employed</u> Proportion Enrolled	Proportion Enrolled in School and Employed
16-17	Men	90.7	34.4	35.7	87.4	31.2
	Women	87.2	31.5	31.2	87.9	27.5
18-19	Men	49.8	36.0	55.2	32.6	17.9
	Women	44.2	34.7	45.6	33.6	15.3
20-21	Men	35.3	41.9	65.1	22.7	14.8
	Women	27.4	43.4	51.7	23.0	11.9
22-24	Men	20.0	48.9	77.0	12.7	9.8
	Women	12.5	60.3	60.0	12.6	7.6

Source: U.S. Department of Labor, "Students, Graduates and Dropouts on the Labor Market, October, 1975". Special Labor Force Report 191. Recalculated from Table A.

TABLE 2

Reason Job-Seekers Looked for Work (both sexes)

	Age 16-19	All Job-Seekers
Weighted N (Thousands)	(1,727)	(10,437)
New or re-entrants to Civilian labor force		
Left School	31.3%	15.0%
Work during school	19.4%	5.5%
Other reasons	<u>11.8%</u>	<u>26.5%</u>
Subtotal	62.5%	47.0%
Employed before this job		
Quit	13.7%	16.9%
Laid off; fired; job ended	9.6%	14.9%
Wanted a different job before quitting	10.8%	13.5%
Other	<u>3.4%</u>	<u>7.8%</u>
Subtotal	37.5%	53.1%

Source: U.S. Department of Labor, (1975) Job-seeking Methods Used by American Workers, Bureau of Labor Statistics, Bulletin 1886.

TABLE 3 - Job-search and Selected Job-Finding Methods in the Current Population Survey Sample, 1973;
Selected Subpopulations

	Teenage girls 16-19		Women 20-24		ALL FEMALES	
	Proportion Finding Job by this Method	Proportion Using Method (job- search)	Proportion Finding Job by this Method	Proportion Using Method (job- search)	Proportion Finding Job by this Method	Proportion Using Method (job- search)
Direct Application to Employer	30.9%	62.8%	33.1%	64.8%	34.6%	64.4%
Ask Friends about Jobs Where They Worked	15.3%	59.7%	7.8%	50.1%	10.7%	47.2%
Ask Friends about Jobs Elsewhere	3.1%	44.9%	4.9%	42.4%	4.8%	36.6%
Ask Relatives about Jobs Where They Work	10.4%	37.7%	4.6%	27.5%	5.1%	25.1%
Ask Relatives about Jobs Elsewhere	3.5%	33.5%	2.1%	31.1%	1.7%	23.9%
Answer Ads in Local Newspaper	12.2%	40.8%	13.0%	51.0%	14.5%	47.5%
Check with Private Agency	7.7%	18.1%	10.2%	30.2%	7.9%	22.4%
State Employment	3.1%	24.3%	5.6%	31.2%	5.2%	29.2%
School Placement	3.0%	12.5%	5.2%	21.2%	2.8%	13.0%
Civil Service Test	2.4%	12.0%	2.7%	20.1%	2.8%	15.2%
Ask Teachers	3.1%	18.8%	2.3%	16.8%	1.6%	11.8%

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TABLE 3 - Job-search and Selected Job-finding Methods in the Current Population Survey Sample, 1973;
Selected Subpopulations (con't.)

	Teenage boys 16-19		Men 20-24		ALL MALES	
	Proportion Finding Job by this Method	Proportion Using Method (job- search)	Proportion Finding Job by this Method	Proportion Using Method (job- search)	Proportion Finding Job by this Method	Proportion Using Method (job- search)
Direct Application to Employer	33.8%	64.4%	35.9%	69.1%	35.1%	67.3%
Ask Friends about Jobs Where They Worked	21.1%	65.8%	13.1%	59.2%	13.8%	53.8%
Ask Friends about Jobs Elsewhere	6.0%	47.7%	5.3%	53.6%	6.2%	45.9%
Ask Relatives about Jobs Where They Work	10.8%	42.1%	9.1%	40.0%	6.9%	31.0%
Ask Relatives about Jobs Elsewhere	4.3%	36.0%	3.7%	41.2%	2.7%	30.1%
Answer Ads in Local Newspaper	5.9%	37.1%	7.8%	46.7%	10.3%	44.6%
Check with Private Agency	2.1%	9.7%	3.0%	18.1%	3.8%	19.9%
State Employment	5.0%	27.3%	5.5%	41.9%	5.0%	37.1%
School Placement	4.0%	12.1%	4.9%	17.1%	3.1%	12.0%

Source: U.S. Department of Labor, (1975) Job-seeking Methods Used by American Workers, Bureau of Labor
Statistics, Bulletin 1886 Tables B-1 and C-1.

TABLE 4 - Effectiveness of Job-finding Methods, CPS Sample, 1973

	Teenagers, 16-19			Young People, 20-24			All Job-finders, 16+		
	Measure I [*]		Measure II ^{**}	Measure I [*]		Measure II [*]	Measure I [*]		Measure II [*]
	Boys	Girls	(Both Sexes)	Men	Women	(Both Sexes)	Males	Females	(Both Sexes)
Direct Application to Employer	.52	.49	0.92	.52	.51	0.92	.52	.54	0.94
Ask Friends About Jobs Where They Worked	.32	.26	1.14	.22	.16	1.31	.26	.23	1.29
Ask Friends, Elsewhere	.13	.07	1.04	.10	.12	1.38	.14	.13	1.28
Ask Relatives About Jobs Where They Work	.26	.28	1.91	.23	.17	1.67	.22	.20	1.69
Ask Relatives, Elsewhere	.12	.10	1.26	.09	.07	1.38	.09	.07	1.46
Answer Ads in Local Newspaper	.16	.30	0.55	.17	.25	0.62	.23	.31	0.69
Check with Private Agency	.22	.43	1.41	.17	.34	---	.19	.35	1.04
State Employment	.18	.13	0.71	.13	.18	0.93	.13	.18	0.82
School Placement	.33	.24	1.25	.29	.25	0.98	.26	.22	1.03
Civil Service Test	.04	.20	1.62	.09	.13	1.67	.10	.18	1.50
Ask Teachers	.13	.16	1.73	.07	.14	1.25	.15	.14	1.40

* Proportion finding job through this method among those using it.

** Ratio of number finding job through this method to number using method "most often" during job search.

Source: U.S. Department of Labor, (1975) Job-seeking Methods Used by American Workers, Bureau of Labor Statistics, Bulletin 1886 Calculated from tables B-1, C-1, and C-9.

TABLE 5 - Proportion of Job-finders (by method used to find prior job)
Using Specified Methods to Find Subsequent Job

Method Used for Subsequent Job

Method Used for Prior Job	School	Public	Private	Direct Application	Newspaper	Friends & Relatives	Other	Total
School Placement	17.2%	3.8%	1.7%	19.7%	23.4%	24.3%	10.0%	100%
Public	4.6%	15.7%	0.9%	22.2%	21.3%	26.9%	8.3%	100%
Private Agency	6.4%	0.0%	21.3%	12.8%	29.8%	19.1%	10.6%	100%
Direct Application to Employer	5.3%	2.9%	1.1%	25.3%	21.2%	35.4%	8.9%	100%
Answer ads in local Newspaper	4.3%	4.3%	1.6%	12.4%	55.1%	18.9%	3.2%	100%
Ask Friends and Relatives	4.4%	3.2%	1.2%	21.7%	18.6%	43.2%	7.6%	100%
Other	5.2%	1.3%	0.3%	25.7%	19.5%	37.8%	10.1%	100%
Total	5.6%	3.4%	1.5%	22.2%	21.8%	37.4%	8.2%	100%

Source: David Saunders, (1975) "The Company Youth Keep". An Empirical Analysis of Job-Finding Among Young Men, 14-24. Unpublished Ph.D. dissertation. Bryn Mawr College. Recalculated from Table 58, page 214.

TABLE 6 - Job-finding Methods - Comparison of C.P.S. and N.L.S. Data,
Young Men

	CPS, 1973 Ages 16-19	NLS, 1966-69 Combined Samples*	
		Ages 14-17	Ages 18-21
Direct Application to Employer	33.8%	24.7%	24.8%
Ask Friends and Relatives about Jobs Where They Work-or Elsewhere	42.2%	53.5%	48.3%
Answering Newspaper Ads (local and other)	6.3%	2.8%	4.5%
School Placement Office	4.0%	7.7%	7.4%
Public Employment Agency	5.0%	1.5%	4.1%
Private Employment Agency	2.1%	0.4%	1.3%
Other	6.6%	9.3%	9.7%

*Weighted averages computed from published tables in Saunders (1975).

References

- Alexander, Karl and Martha Cook. Proposal to N.I.E. under Education and Work Grants Competition. 1976.
- Alexander, Karl L. and Bruce K. Eckland. "School experience and status attainments," in Adolescence in the Life Cycle. Sigmund E. Dragastin and Glen H. Elder, Jr., eds., Washington, D.C.: Hemisphere Publishing Corp. 1975.
- Alexander, Karl L., Bruce K. Eckland, and Larry J. Griffin. "The Wisconsin model of socioeconomic achievement: A replication." American Journal of Sociology, 1975, 81:324-342.
- Bachman, Jerald G., Swayzer Green and Ilona Wirtanen. Dropping Out - Problem or Symptom: Youth in Transition Vol. III. University of Michigan, Institute for Social Research, No. 3322, 1971.
- Bailey, Larry J. and Ronald Stadt. Career Education: New Approaches to Human Development. Bloomington, Ill.: McKnight, 1973.
- Blau, Peter and Otis Dudley Duncan. The American Occupational Structure. New York: Wiley, 1967.
- Bradshaw, Thomas F. "Jobseeking methods used by unemployed workers." U.S. Department of Labor. Special Labor Force Report 150, 1973.
- Carlson, Michael D. "The 1972-73 consumer expenditure survey." Monthly Labor Review 97 (December):16-23, 1974.
- Coleman, James S. "How do the young become adults?" The Johns Hopkins University, Center for Social Organization of Schools, Report No. 130, (May), 1972.
- Coleman, James S., et. al. Youth: Transition to Adulthood, Report of the Panel on Youth. President's Science Advisory Committee, Chicago: University of Chicago Press, 1974.
- Crites, J. O. "Career development process: A model of vocational maturity." In Vocational Guidance and Human Development, E.L. Herr (Ed.). Boston: Houghton Mifflin, 1974.
- Duncan, Beverly. "Early work experience of graduates and dropouts." Demography. 1967, 4:19-29.
- Duncan, Otis Dudley and David L. Featherman. "Psychological and cultural factors in the process of occupational achievement." Social Science Research, 1972, 1:121-145.
- Duncan, Otis Dudley, David L. Featherman and Beverly Duncan. Socioeconomic Background and Achievement. New York: Seminar Press, 1972.

- Ericson, Robert W. "Recruitment: some unanswered questions." Personnel Journal, 1974, 53 (February):136-140, 147.
- Featherman, David L. and Robert M. Hauser. "Changes in the socioeconomic stratification of the races, 1962-73." American Journal of Sociology, 1976, 82 (November):621-651.
- Foote, Andrea. "Occupational mobility and the job change: channels of job information in the Detroit area." Unpublished Ph.D. dissertation, University of Michigan. University microfilms: 74-3625, 1973.
- Gannon, Martin J. "Sources of referral and employee turnover." Journal of Applied Psychology, 1971, 55:226-228.
- Ginzberg, E. Occupational Choice. New York: Columbia University Press, 1954.
- Gottfredson, Linda A. "A multiple-labor market model of Occupational Achievement." The Johns Hopkins University, Center for Social Organization of Schools, Report No. 225, (March), 1977.
- Gottfredson, Linda and Edward McDill. Proposal to N.I.E. under Education and Work Grants Competition, 1976.
- Granovetter, Mark S. Getting a Job: A Study of Contacts and Careers. Cambridge, Mass.: Harvard University Press, 1974.
- Gribbons, Warren D. and Paul R. Lohnes. Emerging Careers. New York: Teachers College Press, 1968.
- Haller, Archibald V. and Alejandro Portes. "Status attainment process." Sociology of Education, 1973, 46 (Winter):51-91.
- Hauser, Robert M. "Disaggregating a social-psychological model of educational attainment." Social Science Research, 1972, 1:159-188.
- Hilaski, Harvey J. "How poverty-area residents look for work." Monthly Labor Review 94, 1971, (March):41-46.
- Holland, John L. Making Vocational Choices: A Theory of Careers. Englewood Cliffs, New Jersey: Prentice-Hall, 1973.
- Holland, John L., Sorenson, A. B., Clark, J. P., Nafziger, D. H. and Blum, Z. D. "Applying an occupational classification to a representative sample of work histories." Journal of Applied Psychology, 1973, 58:34-41.
- Jencks, Christopher, et. al. Inequality: A Reassessment of the Effect of Family and Schooling in America. New York: Basic Books, 1972.
- Jencks, Christopher S. and Marsha D. Brown. "Effects of high schools on their students." Harvard Educational Review, 1975, 45 (August):273-324.

- Johnston, Jerome and Jerald G. Bachman. The Transition from High School to Work: The Work Attitudes and Early Occupational Experiences of Young Men. Youth in transition project special report. University of Michigan, Institute for Social Research (November) 1973.
- Jordaan, Jean Pierre. "Life stages as organizing modes of career development," in Vocational Guidance and Human Development, Edwin L. Herr (ed.). Atlanta: Houghton-Mifflin, 1974, pp. 263-295.
- Karweit, Nancy. "Patterns of educational activities: discontinuities and consequences." The Johns Hopkins University, Center for Social Organization of Schools, Report No. 222, 1977 (January).
- Kerckhoff, Alan C. Ambition and Attainment: A Study of Four Samples of American Boys. Washington, D.C., American Sociological Association, 1974.
- Kerckhoff, Alan O. and Richard T. Campbell. "Black-white differences in the educational attainment process." Sociology of Education, 1977, 50 (January):15-27.
- Kohn, Melvin. Class and Conformity: A Study in Values. Homewood, Ill.: Dorsey Press, 1969.
- Lippman, Steven and John McCall. "The economics of job search: a survey." Economic Inquiry, 1976, 14:155-189.
- Lipset, Seymour Martin, Reinhard Bendix, and F. Theodore Malm. "Job plans and entry into the labor market." Social Forces, 1955, 33 (March): 224-232.
- Malm, F. Theodore. "Recruiting patterns and the functioning of labor markets." Industrial and Labor Relations Review, 1954, 7:507-525.
- McLaughlin, Donald H. and David V. Tiedeman. "Eleven year career stability and change as reflected in Project Talent data through the Flanagan, Holland, and Roe occupational classification systems." Journal of Vocational Behavior, 1974, 5:177-196.
- Modell, John, Frank F. Furstenburg, Jr., and Theodore Hershberg. "Social change and transition to adulthood in historical perspective." Historical Methods Newsletter, 1976 (Spring/Summer).
- Mooney, H. William, Beatrice R. Pollack, and Leslie Corsa, Jr. "Use of telephone interviewing to study human reproduction." Public Health Reports, 1968, 83 (December):1049-1060.
- National Center for Health Statistics. "Reporting health events in household interviews: effects of an extensive questionnaire and a diary procedure." Vital and Health Statistics, Series 2, No. 49, 1972.
- National Commission for Manpower Policy. From School to Work: Improving the Transition. Washington, D.C.: Government Printing Office, 1976.

- Ornstein, Michael. "Entry into the American labor force." The Johns Hopkins University, Center for Social Organization of Schools, Report No. 133, 1971, (September).
- Parnes, Herbert. "Research on labor mobility." New York: Social Science Research Council, 1954.
- Porter, James N. "Socialization and mobility in educational and early occupational attainment." Sociology of Education, 1976, 49 (January): 23-33.
- Princeton University, Industrial Relations Section. The Transition from School to Work. Research Report Series No. 111. Princeton, New Jersey: Princeton University Press, 1968.
- Rees, Albert. "Information networks in labor markets." The American Economic Review, 1966, 56 (May):559-566.
- Reid, Graham L. "Job-search and the effectiveness of job-finding methods." Industrial and Labor Relations Review, 1972, 25 (July):479-495.
- Reynolds, Lloyd G. The Structure of Labor Markets. New York: Harper and Brothers, 1951.
- Roberts, K. "The entry into employment: an approach towards a general theory." Sociological Review, 1968, 16:165-184.
- Roe, Anne. The Psychology of Occupations. New York: Wiley, 1956.
- Rosenberg, Morris. Occupations and Values. Glencoe: The Free Press, 1957.
- Rossi, Peter H., Richard A. Berk, and Bettye K. Eidson. The Roots of Urban Discontent. New York: Wiley Interscience, 1974.
- Rossi, Peter H. and Michael D. Ornstein. "The impact of labor market entry factors." Social Science Information, 1972, 11:269-311.
- Saunders, David N. The Company Youth Keep: An Empirical Analysis of Job Finding Among Young Men 14-24. Unpublished Ph.D. dissertation. Bryn Mawr College. University microfilms, 1974.
- Schiller, Bradley. "Job search media: utilization and effectiveness." Quarterly Review of Economics and Business, 1975, 15:55-63.
- Schmiedeskamp, Jay. "Reinterviews by telephone." Journal of Marketing, 1962, 26 (January):28-34.
- Sewell, William H. and Robert M. Hauser. "Causes and consequences of higher education: models of the status attainment process" in Schooling and Achievement in American Society, William H. Sewell, Robert M. Hauser and David L. Featherman, eds., New York: Academic Press, 1976.

- Shea, Brent Mack. "Schooling and its antecedents." Review of Educational Research, 1976, 46 (Fall):463-526.
- Sheppard, Harold and A. Harvey Belitsky. The Job Hunt, Job-Seeking Behavior of Unemployed Workers in a Local Economy. Baltimore: The Johns Hopkins Press, 1966.
- Stigler, George. "Information and the labor market." Journal of Political Economy, 1962, 70 (October):94-106.
- Sudman, Seymour. "A comparison of alternative procedures for collecting consumer expenditure data for frequently purchased products." Journal of Marketing Research, 1974, 11:128-135.
- Temme, Lloyd. Occupation: Meaning and Measures. Washington, D.C.: Bureau of Social Science Research, 1975.
- U.S. Department of Labor. Dictionary of Occupational Titles. 3rd edition. Washington, D.C.: Government Printing Office, 1965.
- U.S. Department of Labor. Career Thresholds: A longitudinal Study of the Educational and Labor Market Experience of Male Youth, vol. 1. Manpower Administration monograph no. 16. Washington, D.C. (Also vols. 2 (1971); vol. 3 (1971); and vol. 4 (1974).), 1970.
- U.S. Department of Labor. "Employment of school-age youth." Bureau of Labor Statistics. Special Labor Force Report 135, 1971.
- U.S. Department of Labor. Handbook for Analyzing Jobs. Washington, D.C.: U.S. Government Printing Office, 1972.
- U.S. Department of Labor. "Jobseeking methods used by American workers." Bureau of Labor Statistics. Bulletin 1886, 1975.
- U.S. Department of Labor. "Students, graduates, and dropouts in the labor market, October 1975." Bureau of Labor Statistics. Special Labor Force Report 191, 1976.
- Viernstein, Mary C. "The extension of Holland's occupational classification to all occupations in the dictionary of occupational titles." Journal of Vocational Behavior, 1972, 2:107-121.
- Westcott, Diane N. "Youth in the labor force: an area study." Monthly Labor Review, 1976, 99 (July):3-9.
- Winsborough, Halliman H. "Statistical histories of the life cycle of birth cohorts: the transition from school boy to adult male." University of Wisconsin-Madison, Center for Demography and Ecology, 1975, (July).