EVALUATION OF NEW CAREERS PROGRAMS

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"I have a lot of concerns about this phony program called new careers. It has nothing to do with what I had in mind when I wrote a book, which really talked about changing the nature and quality of life. It had nothing to do with conning some poor people into doing some lousy jobs" (Pearl, 1969; 7).

The term *new careers* came into being when Arthur Pearl and Frank Riessman collaborated on a book, *New Careers for the Poor: The Nonprofessional in Human Service* (1965). The book described a way of providing permanent, socially useful jobs with career potential for unskilled, uneducated, and unemployed people. In the five years since its publication, new careers has been the focus of numerous pieces of federal legislation, has acquired the status of a separate office within the Department of Health, Education, and Welfare, and has developed into a minor social movement. But its accomplishments fall far short of what was envisioned in the book.

New careers is a concept embracing radical and long-term change in the provision of human services—education, health, and other aspects of human welfare. Its premises are that change is needed in the structure and functioning of the agencies which provide these services and in the educational institutions which train and accredit the people who work in them.

New careers offers an alternate way to develop human service manpower from

the presently used training-before-employment model. It proposes new entry positions into human service agencies, the positions to provide training as a part of the entry job, the training to be linked with formal education which is appropriately modified to meet the needs of these new kinds of workers. It provides for upward job mobility by spelling out a career ladder that allows promotions on the basis of combined experience on the job and concurrent education.

New careers is not an add-on procedure. To be effective it requires changes in organizations—in civil service systems, in social agencies, and in educational institutions. It requires changes in professional staff roles, functions, attitudes, and training. It is expected to lead to new, more appropriate, and more effective forms of service.

New careers is not to be confused with the use of nonprofessionals in human service work. The armed forces have long used paraprofessionals in medical, education, and training functions. Self-help organizations use lay people to work with persons whose problems are ordinarily seen as requiring professional service. Nonprofessionals have been used extensively as aides in education, welfare, and corrections programs to relieve professional shortages or in the absence of money to hire professionals. More recently they have been employed in specific efforts to establish better communication between agency and clients. There have been a number of attempts to use clients as workers in delinquency prevention programs. The Economic Opportunity Act of 1964 gave impetus to the expansion of nonprofessional employment. The hiring of nonprofessionals had not been envisioned under the Act but developed as a way of obtaining the participation of residents in community planning and action programs that the Act required.

Several demonstration projects about this time became identified with the new careers idea. In New York, Mobilization for Youth was involved with the hiring and training of low-income people from the community for work in a variety of new community action roles as well as for work with agencies serving the community (Pearl and Riessman, 1965; Riessman, Oct. 1963, Nov. 1963). Although this project was not at that stage concerned with careers, Riessman's experience there in training nonprofessionals and training trainers contributed heavily to the development of the new careers concept. The Center for Youth and Community Studies (later the Institute for Youth Studies) at Howard University in Washington, D.C., began a series of career development projects with youth. The first of these, the Community Apprentice Program (President's Committee, 1965), was both shaped by and contributed to Pearl's development of the new careers idea. In California the New Careers Development Project (Grant, 1968; Grant and Grant, 1967, 1970) began training men confined in state prisons for what was originally hoped would be careers in administration of justice agencies but which turned into broader program development roles in antipoverty programs. At Lincoln Hospital in the Bronx the Neighborhood Service Center Program (Hallowitz and Riessman, 1967; Riessman, 1966), with Riessman as co-director, trained residents from the community as mental health workers in storefront service centers.

In 1966 Congressman Scheuer of New York introduced an amendment to the Economic Opportunity Act that gave new careers a legislative and funding base. The amendment, Section 205(e) of the Economic Opportunity Act of 1967, was

passed in October of 1966. Some 20,000 people have been through programs authorized by this legislation. There are now 109 such programs operating over the country with a current enrollment of about 9,000 people. New careers programs funded under the Scheuer amendment are currently administered through the Department of Labor, some through the Concentrated Employment Program (CEP), some as independent entities. As this is written there are moves to merge new careers programming with other manpower programs where, new careers proponents fear, it will be effectively scuttled. The outcome of this is still in doubt.

There are a number of other federally financed programs whose funding is authorized under legislation containing new careers language and which can be considered as potential new careers programs. They can be found under education, vocational rehabilitation, health manpower, housing, delinquency, corrections, law enforcement, and social security auspices. Few such programs operate without federal funds but at least two have been undertaken by local government agencies.

The concept of new careers is a complex one which has never been actually realized in practice. New careers is based upon a full employment plus economy. The programs funded today under the EOA and others, variously funded, which call themselves new careers are at best steps in development toward the new careers idea and at worst euphenisms for putting poor people to work in dead-end jobs on temporary soft-money federal funding.

The evaluator of a new careers program must look simultaneously at several factors. What is the impact of the program on the new careerist participants? On the professionals with whom they work? On the participating agencies and educational institutions? On the agency clients and the community at large? Granted a program attempts to meet new careers requirements, it may advance in some areas but not in others, or may advance in different areas at different rates of speed. A program may be successful at creating a large number of new entry jobs, filling these with people who show a high degree of stability in the program, and providing opportunities for individuals to advance from the point of entry, but it may do so while having little or no impact on the agencies in which the new careerists work nor on the functions performed by the agency professionals. Another program may fail to provide career ladders for its supposed new careerists and have a high dropout rate, but the program may start an agency on the road to examining the appropriateness and effectiveness of its entire service delivery system. Which of the two is the more effective?

The evaluator has four places to look in his efforts to assess program impact: the program's organization and staff, the new careerists, the participating organizations, and the community. The four areas are discussed separately below, with some of the evaluation problems each entails. Issues in setting up an overall evaluation design are discussed in a later section.

PROGRAM ORGANIZATION AND STAFF

Anyone attempting to move into the new careers evaluation field would do well to get some historical perspective and current information through past and current issues of the New Careers Newsletter, published by the New Careers Development

Center, School of Education, at New York University. The Center gained its original support largely from a Ford Foundation grant. The *Newsletter* deals with developments in legislation, programs, and social action relating to new careers. It reports shifts in thinking about new careers and its implementation, developments in the organization and ideology of new careerists, details of new programs, modifications in civil service and other accrediting agencies, developments in education that help foster new careers, and evaluation studies. It also contains a list of relevant publications available through the Center and through other auspices. The *Newsletter* is the best overall source of information on the new careers field.

Another important resource is the *New Careers Program Assistance Bulletin* published by the National Institute for New Careers of the University Research Corporation, a private organization in Washington, D.C., which has been under contract to the Department of Labor for the past three years to provide technical assistance to the new careers projects under its jurisdiction. The *Bulletin* offers information on new careers programs throughout the country and on related developments in federal agencies, discussions of problem areas, summaries of research reports, and a section on publications.

Two early publications offering an overview of the problems and issues in implementing new careers programs are available from the Center for the Study of Unemployed Youth at New York University (New York University, 1966; Schmais, 1967).

Organization

The funding and legislative background of a given program set the initial organizational constraints under which it must operate. A new careers program is generally funded through a larger entity, often a community action agency, some-times a unit of local government. There is, usually, some core staff which may or may not be responsible for the various program components. These components include the following, though not all may appear in any one program.

a. Job development (finding agency placements for the new careerists)
b. Recruitment of a pool of potential new careerists
c. Selection of new careerist trainees
d. Orientation (to the program, to the job, and/or to the "world of work" which usually means how to dress, how to show up on time, and how to fill out forms)
e. Training (core training which is sometimes part of orientation and which may prepare new careerists for human service work generally training for specific jobs, and/or inservice training)
f. Education (remedial, and/or continuing education, usually linked to job upgrading)
g. Supportive services (financial counseling and aid, child care, transportation, legal services,..personal counseling)
h. Supervision on the job
i. Technical assistance to employing agencies
j. Evaluation

Typically the central or core staff of a program is small. The program compo-nents may be assigned or contracted out, singly or in combination, to other groups or organizations. Responsibilities may overlap. The work of the contributing organizations may or may not overlap in time. Core staff may exert some control or direction over their activities or they may operate completely independently and bypass the core staff. Administration and direct operational responsibility may be separated. Communication among the various components may be informal, may be channeled through the core staff into regular meetings or seminars, or may be absent.

To take an example, hypothetical but not untypical: a new careers program director is hired by a community action agency to run the new careers component of CEP. He has an assistant and a secretary. He reports to CEP staff and his disbursement of funds is controlled by them; they in turn are subject to local community and state political pressures. Recruitment and selection are contracted out to the state employment service which also finds clients for the other man-power components of CEP. The director has the task of developing agency job placements. A university-based group provides an initial training program, inde-pendent of the agencies in which the new careerists will be placed. Remedial education is offered through the secondary school system. The director tries to work out some arrangement with the local community college for admitting the program participants and setting up special courses, but his job development task leaves him little time and this is not his field of expertise. His assistant is expected to provide continuing consultation to the agencies on the utilization of the new careerists and on job upgrading but finds his time taken up in dealing with the resistances and misconceptions of the line staff who directly supervise the new careerists and who have received little or no orientation to the program. Placements are so scattered among agencies that communication between agency line staff, policy-making staff, and new careerists is a major obstacle. Some monies are available through CEP for transportation and child care for the new careerists and a voluntary university student group offers personal counseling, but financial and other situational crises occur repeatedly. Because of federal budget uncertainties continued funding of the program is in doubt. New careerist paychecks are sometimes late. Evaluation is undertaken while the program is moving into its second year by a university graduate student working on a dissertation.

Such a program hardly offers the optimal climate for the development of a new careers strategy. Pearl has said that there are no new careers programs, only new careers development programs, that is, programs developing toward the new careers model. The assessment of how far toward this model is part of the evaluator's problem.

Staff

The evaluator's next concern is with the persons in charge of the total program and of its major components. There are two questions: what are their articulated goals for the program, their strategies for reaching them, and the assumptions on which the strategies are based? and what is their commitment to the stated goals? The specification of goals and strategies and the assumptions underlying them is

important both to assess the extent to which the program approximates the new careers model and also to determine points of conflict within the program between key staff people. Different interpretations of what the program is about, based on differing and often unarticulated goals and assumptions about how to reach them, appear to be major sources of intra-program conflicts.

Program goals may focus on solving an agency's manpower problems, on making service more responsive to community needs, on providing jobs for poor people, or on developing career opportunities. What is expected of new careerists and attitudes toward them and their work will differ in each case. Differences may also occur in the assumptions made about what is necessary to qualify new careerists for employment: the development of skills, including the education that will permit advancement in a career ladder, or attitude change and rehabilitation. Further, staff may define their task as helping new careerists fit into existing systems, or as turning new careerists loose to help change systems. Where staff know little about new careers, as is often the case, it is important to know what technical assistance is available and how it is utilized; and the willingness of staff to learn.

The question of staff commitment or integrity may be one of the factors leading to high staff turnover, a problem that plagues many of the programs to date. Appointments to program positions have sometimes been offered as political patronage and staff may spend most of their time in political games. In other cases there may be extraordinary staff expenditures of time, effort, and inventiveness.

Almost all program reports, whether or not intended as evaluation studies, touch on some of these organization and staff issues. A report that does so explicitly and systematically is an evaluation of eleven new careers programs (Ballard and Alley, 1968) commissioned by the Department of Labor and conducted by the Economic Systems Corporation. In this study evaluators—persons with some direct knowledge of new careers programs who shared a common frame of reference—made on-site observations for periods of two or three days at three points in the program's operation. The evaluators met with program directors, with staff responsible for such major program components as training and education, with staff from the employing agencies, and with small groups of new careerists. Each of the eleven separate evaluation reports deals at length with the program's table of organization, its implications for program operation, staff understanding of the new careers model, internal staff problems, and staff integrity in conducting the program. A report of the school community worker component of the Richmond, California, new careers program (Conway, 1967) offers excellent documentation of the issues arising from the differing goals and expectations of core staff, agency staff, and the community, their impact on the attitudes and functioning of the new careerists, and the shaping of the program over a two-year period by individual persons and by events in the larger community. Also in California, an early report of the new careers parole aide program in the Department of Corrections (Fagerstrom, 1968) discusses in some detail the differences in staff attitudes toward and perceptions of the new careerists in different parts of the agency and the effect these have on new careerist roles and performance. In another evaluation study funded by the Department of Labor (Larson et al., 1968) the structure of the nine agencies involved in

the Minneapolis new careers program is examined as well as the hierarchy of authority to deal with new careers, the machinery in each agency for upward mobility, staff attitudes, and the atmosphere in which the new careers program operates.

A look at the new careers setting forms an important base from which to assess the effectiveness of the program itself. If training is ineffective or irrelevant the fault may lie neither with the design or execution of the training program but stem rather from the fact that training staff and job development staff are working from two different sets of premises and toward two different goals. If, as is the case with almost all new careers programs, there is limited job mobility for the new careerists this may come about not because of the recalcitrance of the agencies involved but rather because the sponsoring entity or core staff directing the program have no real commitment to the development of careers and have given it only the token support necessary to qualify for federal funding.

THE NEW CAREERISTS

A new careers program can be looked at from the point of view of how the individual participants perform and develop or how the participating organizations modify and change their functioning. This distinction is somewhat artificial and made for ease of presentation. But it is also intended to point up the fact that most evaluators look at a program in terms of its impact on individuals and pay little attention to the more important but touchier issues of organization change.

Were They Successful?

Early in the development of the new careers concept the question was raised whether it would in fact be possible to train millions of poor people for jobs in the human service field, to place them in human service agencies, and to have them remain for a period of time without having the system blow up. The question has long since been answered in the affirmative. A year ago there were estimated (Gartner, June 1969) to be some 400,000 nonprofessionals (paraprofessionals, subprofessionals—none of these terms is completely satisfactory) working in education, health, welfare, recreation, corrections, law enforcement, and community action agencies in entry level, aide-type (no necessarily new careers) positions. On the whole these agencies have continued to function, with a few notable exceptions—for example, the 1968 strike by psychiatric aides in Topeka, Kansas, state hospitals, who staged a work-in to demonstrate against inadequate patient care and lack of upgrading (Efthim, 1968; New Careers Newsletter, 1968, No. 2); the 1969 shutdown by nonprofessionals and professionals of the Lincoln Hospital Mental Health Services in the South Bronx, largely over the issue of community control (New Careers Newsletter, 1969, no. 2)—though these disturbances may be viewed as transient phases in programs undergoing positive development.

Most new careers program reports are content to give the per cent of entrants who stay with the program as a measure of success. At the very least, such statements should include a comparable time base for the new careerists. For

example, a survey of 53 new careers programs across the country (Wilson et al., 1969) reported that 85% of the nearly 10,000 participants had stayed with the program, citing the high retention rate as one measure of program achievement, but the figure was arrived at apparently without regard for the time the program had begun and the length of time the individual new careerist had been with it (these ranged apparently from one month to two years). In any case, job stability is not necessarily a sign of new careerist success since stability, particularly in an entry level job, may mean merely that the new careerist has nowhere else to go.

Job mobility (e.g., moving from trainee status to civil service status) and increases in earning have also been used as measures of success. These hold more promise since it is then possible to assess the extent to which the new careerist has in fact moved out of poverty or has begun movement on a career ladder. Mobility and earnings, however, may be more a function of what is happening with organizational, funding, and government structures than of anything the new careerist himself is doing. In a study of 26 new careerists who had been placed in a variety of public and private New York City social agencies (National Committee on Employment of Youth, 1970) an attempt was made to assess performance on the basis of movement from entry class to higher ones and of the amount of salary paid after a two year period. It was concluded that both job status and salary differentials were a function chiefly of agency differences and not of differences among the new careerists.

A more relevant but more difficult approach to new careerist success in the area of performance evaluation. Assessment has been tried using ratings by staff (training, supervisory, and professional co-worker), by new careerists, and by outside consultants. A study of aides in several differently funded programs in Los Angeles schools (Los Angeles Unified School District, 1969) used questionnaires to obtain ratings and evaluative comments from aides, teachers with whom they worked, principals, other staff members and (for one program) a sampling of parents. Questionnaire returns tended to be low for the aides (generally about two-thirds) and for parents (less than half). The data were used to identify areas of effective aide support to the schools and to assess the extent to which aides were able to improve communication between the school and the home. Frequency tabulations and excerpts from questionnaire responses are presented.

Staff ratings are limited by the amount and kind of contact between staff and new careerists and may in any event tell more about staff attitudes toward new careerists or toward rating scales than about how the new careerist actually performs. They are probably most useful when they refer to the performance of specific tasks rather than to general job behavior. For example, in a project to train home health aides (Hoff et al., 1968) ratings of work performance were obtained 15 weeks after the completion of training from the supervisors of all aides who obtained employment. The ratings, made on a 3-point scale, covered 30 items of specific job behavior. The items were later grouped into those referring to technical skills, attitudes and interpersonal relationships, and professional conduct and work habits. There was little spread among the ratings given (the lowest rating was seldom used), though the attitude cluster showed a wider variation of scores than

the other two. This may mean that the ratings did not adequately differentiate aide performance; but in view of the specificity of the items rated (e.g., "able to dress and undress paralyzed patient"), it is more likely that they indicated satisfactory performance by all aides.

The ultimate test of course is the new careerist's performance as it affects clients. Some kinds of roles lend themselves to performance evaluation more readily than others. For example, if the new careerist's function is an outreach service, the number of people he is able to bring in for agency service compared with the number brought in during comparable time periods by professionals provides a ready way of assessing his usefulness for this particular function. Contra Costa County, California, reported (New Careers Newsletter, 1968, no. 6) that health aides were able to reopen 26 or 30 cases the Health Department had had to close because professional staff could make no further contact with the families. These are relatively simple success measures, though they do not answer the question of why the aides were successful. Other roles are more difficult to evaluate. Studies of the performance of school children before and after an aide program was introduced have suffered from problems of collecting complete data, the adequacy of tests to measure change, and difficulties in interpreting what changes actually mean: does a child gain in score on a reading or arithmetic test because of the presence of the aide, because of the altered performance of the teacher, because of related shifts in school climate, or because of factors unrelated to the aide program.

A carefully designed study of teacher aides (Minneapolis Public Schools, 1967) looked at gains in children's scores on the Metropolitan Readiness Test for nine second-semester kindergarten classes, three with no aides, three with one aide each, and three with five aides per class. Using analysis of covariance to adjust for differences in pretest scores, a significant group effect was found. Mean gains were significantly higher for the one aide than the no aide condition; gains were also higher for the five aide than the no aide groups but did not reach significance. With the small number of classes involved there was no way of controlling or studying teacher effects (the same three teachers worked in the no aide and five aide conditions, another three worked in the one aide condition). Such analysis may be possible in a study currently underway in Oregon (Conant, 1970) which involves sizable numbers of classrooms and in one proposed for the Los Angeles City Schools (Husek-Rosen, 1970). The latter calls for looking at the effects of high and low saturation of aides within and between eight schools on pupil achievement, pupil attitudes toward school, and the instructional process.

The evaluation of the School Community Worker Program (Conway, 1967) has attempted the most comprehensive analysis of new careerist impact on clients. The five new careerists were used as liaison with parents and the community and as staff in a "cooling off room" to which troublemakers were sent. It was hypothesized that use of the new careerists would reduce class management problems, resulting in more time available for instruction and an improved climate for learning. Behavior in the classroom was studied through direct observation of pupil teacher relations in the two target schools and in a control school using such items as classification of the role taken by the teacher (instructor versus disciplinarian), interactions rated

was warm on the part of the teacher, and interactions rated as warm, compliant, resistant, calm, or emotional on the part of the students. The study report, which apparently gives only a small proportion of the data gathered, infers the impact of the new careerists by noting shifts in percentages within each school from the fall to the spring of the first year of the program. No significance tests are reported.

Other measures of school behavior used were frequency of tardiness and numbers of unexcused absences (no data is given), truancy rates, and suspension rates. The use of the latter was made difficult by the inadequate records kept at most schools. The author also notes the confounding effect of the then new state law which limited suspensions per year to ten days per pupil, thus causing most pupils to be suspended for short periods early in the year, receiving the balance of their ten day "share" in May or June.

An attempt was also made to assess the program's impact on pupil academic achievement, although none of the new careerists had any instructional role. This assessment was part of a larger evaluation study which included assessment of the counseling program at other schools in the district. Analysis of variance was used to evaluate differences in the reading score gains of students receiving service from the new careers program and from the counseling program, by sex and by grade level, with differences in I.Q. adjusted by analysis of covariance. As is often true with school-wide testing programs, tests were not administered in all classes and absences were not made up. Only one comparison is reported in this study, a report of pre and post mean reading scores for one of the new careers schools and two control schools for fifth grade Negro boys. No differences were found. The author suggests the instruments were not sensitive enough and also points out that the poorest students academically received the most service from the new careerists.

A third approach to evaluation was a measure of pupil perceptions of the new careerists and of pupil attitudes toward their opportunities and chances in life. A fourth was made through a survey of parental reactions to the program. Parents in the target schools who had had some contact with the new careerists were compared with those who had not on their attitudes to the school and to the teachers (the parents were matched on the sex, race, grade, and achievement test scores of their children). In both cases the data suffer from the lack of significance tests and from interpretations that sometimes reach to make a case for the effectiveness of the new careerists. The problem of confounding variables is raised but not explored. Nonetheless these efforts are notable as rare attempts to seek information directly from the consumer of the service product.

A companion study in the Richmond new careers program (Smith, 1967) looked at the impact of five police-community relations aides (PCRAs) assigned to the juvenile section of the Richmond Police Department on delinquency rates. An experimental-control design, intended to compare recorded delinquency in the target area with delinquency in an adjacent control area, broke down early in the project when it was found that the PCRAs were servicing juveniles throughout the city. Evaluation was then limited to the target area and to boys in grades 7 through 10 in 1965, the beginning of the project. The sample of 851, nearly half of the population, was divided into three groups on the basis of amount of service received from the PCRAs during the project period. It was found that those receiving

extensive service were more likely to have a record of delinquent behavior prior to the onset of the project than those receiving slight service or no service at all and that they also scored lower on academic achievement tests. However, when rates of juvenile offenses for the two years of the project were compared with those for the fall year prior to the project the group given extensive service showed a decline while the group receiving slight service or none showed an increase.

A good overall statement on performance evaluation is a survey report from the New Careers Development Center (Gartner, June 1969). The report summarizes evidence on the effect of paraprofessionals on an agency's service product (most of them nonprofessional rather than new careers programs), citing studies in health, mental health, education, social service, law, research, and work with senior citizens. The studies are reported in no detail and many were not intended as evaluations, but they give a broad survey of the range and diversity of nonprofessional skills and the variety of approaches to measuring their effectiveness. These include ratings or statements by teachers and administrators, reports of shifts in professional performance, time saved by the professional through paraprofessional help, numbers of people served by paraprofessional staff and, similarly, numbers brought into service who had not formerly been reached, shifts in delinquency rates, academic achievement or other performance measures on children, kinds and levels of jobs held by paraprofessionals trained several years before, and cost-benefits.

Who Was Successful?

The question of whether poor people can perform effectively in new human service roles is better rephrased as: who can do what tasks with what degree of effectiveness? As far as we know, no one has approached this in a systematic way. Some attention has been given to the selection process and some studies have been done of persons who have entered then dropped out of the program.

Selection. There are two approaches to selecting new careerists. One is represented by the Howard University Community Apprentice Program (President's Committee, 1965): the participants had to be out of school, out of work, without pending arrest, sentence, or communicable disease, and able to read at a fifth grade level; they also had to show up for an interview. Most programs set far more stringent standards. In a report on New York's Public Service Careers Program (National Committee on Employment of Youth, 1969) the authors state that it is important to screen carefully for interest and capacity. Many others talk of the importance of motivational factors. A study of welfare aides (Cudaback, 1969) used not only a vocational achievement level but two specially designed question-naires, one on community and life experiences and one in which the welfare aide applicant was asked to describe her actions in potential job situations. The problem with such approaches is not only that they are screening out devices, but that they preclude collecting systematic information on who can and cannot function in a given paraprofessional role. Pressures for having no failures or at least no boat-rocking are understandable but, as in other areas, hinder the growth of knowledge and freeze existing programs by the assumption that the program is right and if the new careerist can't get with it, the selection process is at fault. Levine and Pearl

(1965) have argued for minimal entry standards, then sorting out for relevant differences the dropouts and poor performers using demographic variables, measures of language skills and cognitive functioning, and such personal data as alienation, self-concept or identity, personal-social functioning, and coping skills. Exclusion criteria are usually set up to handle anxieties of staff rather than as a rational application of knowledge about nonprofessionals. It is interesting to note that the California new careers study (Fagerstrom, 1969) reports some evidence that staff attitudes toward exclusion variables (in this case, an arrest record) may be modified by face-to-face experience with new careerists.

Two studies have made attempts to introduce systematic variation into the selection process. In the Community Apprentice Program (President's Committee, 1965) all candidates were classified as high, medium, and low risks on the basis of a "socioeconomic profile." They were then paired on the basis of risk level, age, and sex and one member of each pair selected on a chance basis for training, those remaining forming a control group. In a program to train counseling interns to work with groups of human service aides (Klein et al., undated) selection was deliberately made for variation in academic achievement, experience with youth, and facility in working with youth. Selection staff observed the candidates in small discussion groups, rated them on ten items assumed to denote good group leadership, then used the ratings to divide those finally selected into high and low risk groups. The ratings were kept from the training staff but the two risk groups were readily identified by them. Because of this and because the selection staff had high total but low item reliability the authors suggest that what was actually measured was some kind of social desirability. The study was further complicated when some of the trainees were assigned to work in one-to-one relationships instead of with groups, thus making the selection criteria irrelevant. In any event, as in the prior study, risk category did not predict performance.

There are a number of selection problems still awaiting study. New careers programs have been charged with creaming from the available pool, although we have no evidence yet as to the significant dimensions for creaming. What happens as one dips deeper into the pool? Most new careers slots are filled by women. Is it possible to masculinize the human services so that appropriate roles will be sought by and filled effectively by men? Is it better to draw from persons indigenous to the neighborhood in which they will work or from those outside of the neighborhood?

Finally, what is the best way to go about selecting people? There are some interesting leads here. In the Howard University study referred to above the young people were given initial training that exposed them to work in child care, recreation, and research. Their final work assignments were made by peer and self selection. To the dismay of staff some of the tougher boys went into the day care program, arguing that placement in recreation centers would place them in ambiguous positions with their peers; they did in fact do very well in day care. A study of new careerists in a family planning program (Gartner, June 1969) used a panel of professional and nonprofessional judges to predict success in performance; they found that professionals predicted success better for some functions, but nonpro-

to those for which the person is being trained were used in the group leader training program (Klein et al., undated) and in the California offender new careers project (Grant and Grant, 1967), but no efforts were made to test the success of this method compared to others. Since in many programs selection is out of the hands of either program or evaluation staff—for example, when referrals are made by the state employment service—the evaluator may be limited to learning the basis on which it has been made.

Dropouts. Studying program dropouts has also been used as a guide to determining who can be effective. In a study of the Minneapolis new careers program (Larson et al., 1969), a comparison was made of 105 dropouts and 155 persons who remained in the program using a series of demographic variations, a questionnaire on work interests, and a self-concept inventory. All dropouts who could be contacted were also interviewed on their program experiences and reasons for leaving. The original intent of the study was to predict who would be likely to drop out and to make recommendations for further recruitment. The authors found no single factor that could be linked to dropping out. They made an effort to look for interaction effects by partitioning their sample on sex, race, and prior occupation, found a few significant differences (e.g., older white women were more likely to stay with the program than any other group), but nothing that they felt could be described as a consistent pattern. This approach assumed that dropouts are a function of new careerist inadequacy rather than program inadequacy. There are undoubtedly persons who cannot perform on the job, for whatever reason, but there are also dropouts because of external events unrelated to the program (e.g., illness), because of failure of program components (e.g., misrepresenting or not explaining the program adequately during recruitment or orientation), and— perhaps most important—because the population on which new careers programs draw is economically marginal and many persons, especially men who are heads of families, literally cannot afford to remain as participants. The authors appear to recognize this, for their recommendations as a result of the study have to do with changes in the operation of the program rather than with restrictions on the kind of persons selected.

A smaller study of the California Department of Corrections new careers program (Fagerstrom, 1969) compared 13 dropouts with 27 stayins on a number of demographic variables but again found no systematic differences. It was noted that there were differences between the official (recorded) reasons for termination and the reasons reported in interviews. It was suggested that some of the aides may have been dropped because of failure to conform attitudinally rather than because of failure to perform on the job. This study, unlike the Minneapolis one, reported time in the program before dropping out.

What Makes for Success?

Each new careerist passes through a variety of processings during the course of this participation in the program. The question of success can be extended as follows: who can do what tasks with what degree of effectiveness given what kind of training, education, supportive services, and supervision on the job?

Training. Each new careers program has its own unique variation of what

constitutes the training experience. For some there is a pre-placement orientation, followed by a mixture of part-time work experience and part-time training. For some training is accompanied by exposure to job settings without real work responsibilities. For others training begins with job placement. Training can be specifically job-related or can be labelled core or generic training which denotes usually that it is concerned with broad subject areas like "personality development" or with functions that might be applicable to a variety of human service jobs. In some cases the ongoing training constitutes a kind of forum in which the new careerists can air grievances, share experiences, and exert pressure for changes within the program.

A problem in many programs is that training staff are functionally and usually administratively separate from the staff of the agencies in which the new careerists are placed. For most new careerist positions there are no clearly defined and tested roles for which training can be developed and the separation between agency and training staff increases the difficulty of designing training that is job-relevant.

There are two steps in evaluating training programs: how is the new careerist changed as a result of his training experience; and what effect does this have on his job performance. Most training evaluations have concentrated on the former. The approaches used include counts of the number completing the training sequence, ratings by new careerists and their trainers of the adequacy and effectiveness of training, and measurements of the learning that has occurred during training. There are problems with each. Completion of training does not necessarily reflect either learning or capacity to perform on the job unless it is tied to clearly demonstrated ability to perform tasks known to be job-relevant. Assessments of training made by new careerists after training is completed may be hard to separate from current feelings about their employment situation. A more sophisticated approach used in the Counselor Intern Training Program (Klein et al., undated) asked trainees to rate their own capabilities in a number of job-related tasks both before and after training, but the authors note that it is difficult to separate behavior changes from shifts in self-perception. In this case the trainees showed little change in their ratings: was this because training had no impact or because they initially had an inflated perception of their capabilities? Their trainers rated the trainees lower prior to training than did the trainees themselves; their post-training ratings were similar to those made by the trainees. Were the trainers showing an initial bias reflecting low expectations of the trainees or were their first ratings more realistic than those made by the trainees? (Initial expectations that new careerists can do almost anything might had led to a decrease in post-training ratings.) The same study also noted that ratings given on global (poorly defined) characteristics such as creativity and initiative tended to be higher than those given on specific skills and behavior. Where ratings are used it is thus important to have very clear role definitions in order to separate shifts in trainee behavior from shifts in rater perceptions.

Measures of learning of the content presented in training avoid some of the pitfalls of ratings but are not free of problems. In the Home Health Aide Project (Hoff et al., 1968) plans for pre and post training measurement were curtailed when it was found that the aides were too frightened by test-taking to obtain accurate

pre-training measures. The authors also point out that such tests do not measure ability to transfer learning to a work situation. Levine and Pearl (1965), summarizing training evaluations done at Howard University's Center for Youth and Community Studies, point out that both information tests and measures of problem-solving techniques have presented methodological problems, the former because they are often too gross to measure change, the latter chiefly because of lack of opportunity to validate against actual job performance. They discuss efforts to gather data about the learning process, in particular the role of the trainer and his interaction with the group, the nature of group interaction, the group's ability to focus on issues and make and implement decisions about group behavior, and the trainee's utilization of his training. A novel feature of these efforts was the use of trainees to collect data on training, with spot checks by evaluation staff to verify the accuracy of the trainee reports and evaluations. Their paper contains a model of a training evaluation design, including input, process, and outcome variables.

A major study of 15 new careers type programs in schools (Bowman and Klopf, 1967) attempted to evaluate the learning of training content through a pre and post training instrument which asked training staff and trainees to rate on scales of frequency and helpfulness a variety of activities in which teacher aides might be engaged. Success of training was to be measured by increased similarity of scores between the two groups following training. The approach failed in large part because the two groups showed little differentiation on the pre-test. The approach also failed to deal with the relevance of the instrument to job performance.

The Counselor Intern Training Program (Klein et al., undated) developed a questionnaire to measure learning of principles and techniques as opposed to straight information. The trainees were asked a series of questions about a leader's role with youth using an actual protocol of a meeting of a boys' group. Differences between pre and post scores on this and also on an information test were not significant by a sign test. The authors state, however, that an examination of individual score changes and pre and post test responses showed that most of the trainees showed evidence of learning; that content areas well covered in training were the most adequately learned; and that intensity of coverage appeared to be more important than the method of presentation, despite the fact that the trainees preferred other methods than the straight lecture.

Evaluations of training are of limited utility if the training is treated as an end in itself rather than as a means toward effective job performance, increased feelings of competence, or some other desired outcome. No one has yet tried to systematically vary training input then observe the impact on job performance. The California offender study referred to above (Grant and Grant, 1970) found no differences in job performance when training was carried out by professional staff, by a mixture of staff and trainees, or largely by trainees, but since these were informal observations made on a small group they offer only interesting leads for further study.

Ratings by job supervisors offer one way to validate training against job performance. In the Counselor Intern Training Program (Klein et al., undated) the 14 trainees were evaluated biweekly on their grasp of the operational context within which they functioned, their skill in performing specific tasks, their strengths and

weaknesses, and changes in their performance over time. Eleven of the group showed improvement in ratings, though there is no indication of the length of time between the two sets of ratings reported. The ratings moreover were for performance in concurrent field work assignments rather than in the jobs for which they were being trained, and some of the supervisors were also instructors in the training program. A more independent evaluation was made in the Home Health Aide Project (Hoff et al., 1968) discussed earlier. Here job supervisors were asked to rate the graduates of the training program on their performance on 30 clearly and specifically defined items of job behavior. Evaluation of training related to a more restricted goal was reported by the welfare aide study cited above (Cudaback, 1968). Training of the aides included frequent tests of training content similar to tests used by civil service. The aides passed the actual civil service test at the end of training "significantly ahead" of others taking the examination.

If orientation or training experience can be found to be positively related to job performance, some argument can be made for its utility. If such relationship is not demonstrated, it remains to be shown whether the new careerist failed the training program (by not understanding or attending to it), or whether the training program failed the new careerist (by teaching skills or information never used on the job).

Education. Two types of formal education are offered, not necessarily in the same program. Remedial education gives help in elementary or high school level reading and arithmetic with the goal of helping the new careerist acquire the high school equivalency without which he will not be eligible for a post-training job or for advancement from his entry level position. The proportion of people who acquire a certificate of equivalency is usually used as the measure of success. Achievement tests have also been used to measure the effectiveness of remedial education, though these may pose several problems. These included in one study (Hoff et al., 1968) lack of instruments brief enough to be nonthreatening yet precise enough to measure improvement, contamination of initial scores by cheating, and difficulty in determining the proportion of test gains attributable to increase in knowledge, decrease in nervousness, and improvement in test-taking skill.

A detailed report on the education component of the New York Public Service Careers Program (National Committee on Employment of Youth, 1969) presents mean test gains over four months on the California Achievement Test and some data relating initial achievement score to the months needed in basic education to reach readiness to take the GED examination. This study also reports new careerist reactions to the basic education program through questionnaire responses and a detailed evaluation of the instructors and their teaching techniques by an outside consultant who observed a number of classes. A similar report is given on the English as a Second Language component of the program which involved full-time language training for Spanish-speaking potential new careerists. Here movement from the remedial program into job training and basic education was the goal and measure of achievement. The outside consultant in this case observed classes, interviewed staff, and administered a questionnaire in Spanish to small groups of students, following this with a group discussion of the program. Achievement test

gains over ten months are also given though interpretation is hindered because different tests were used at the two points in time.

Participation in remedial programming is seldom optional where it is offered as a program component. Participation in higher education sometimes is. It has been pointed to as an indicator of new careerist motivation and thus as a measure of success. In point of fact, programs differ in the ease of access to higher education and the extent to which it is encouraged by the employing agency. In some programs it is an integral part of the work-training experience. In others it is encouraged and released time with pay, with or without assistance in meeting the expenses of fees and transporation, is offered. In others it is left up to the individual new careerist to pursue with the assumption that he will find ways to manage both the time and the expense. Further, programs differ in the extent to which participation is seen as job-relevant. Where there are clearcut career ladders and higher education is one way to move up them participation means something different to the new careerist than it does in programs where education is only vaguely seen as a means of self-improvement.

When higher education is built into a new careers program, a host of interesting but mostly untested questions are raised. Three approaches and sets of assumptions have been used in the college level teaching of new careerists: develop special classes for them since they are too unfamiliar or uncomfortable with formal education or too culturally different to respond to ordinary methods of teaching; develop special classes for them because most college courses are too irrelevant to their needs, with or without opening these to the college population at large; let them participate in regular college work, with or without providing associated tutoring and counseling services. Mixtures of all three are sometimes used. Which approach is best, or more properly, which approach is best for which new careerists and which goals? Do new careerists require special, more action-oriented teaching styles or in fact do all students do better with such an approach, the new careerist being only a special example? Do new careerists perform best when learning with other new careerists or when they are mixed with other college students? What kinds of teaching staff work best with what kinds of new careerists? What should be the role of the agency in helping design the content of the teaching curriculum? What makes course work "relevant"?

The Minneapolis new careers program has done the most with these questions. University of Minnesota staff have been intimately involved with new careers training and education for several years. It has been shown that new careerists, most of whom are assigned to the General College in the University though they do not meet the entrance requirements, perform comparably to students as a whole and that they can acquire academic credentials. Attention has also been given to differences among new careerists as students and to their varying needs for educational support (Knop et al., 1969; Wattenberg, 1968). A number of new courses have been designed for the new careerists and there have been some efforts to systematically vary teaching approaches, for example, contrasting one section of a course attended only by new careerists with one attended by both new careerists and regular students and one attended by both new careerists and regular students

SELECTED CONTENT AREAS IN EVALUATION RESEARCH

and one attended by regular students only (Wattenberg, 1970). Whether new careerists participating in given kinds of education programs actually perform better on the job has yet to be determined. It has also yet to be determined for their professional co-workers.

Supportive Services. There have been no systematic studies of the need for or effectiveness of supportive services. Program observers generally note gaps in service, such as inadequate transportation or lack of means to help new careerists cope with sudden financial crises. Similar information has been obtained when new careerists have been interviewed about program participation. Financial problems loom largest in most programs. It has been noted for example that having a regular paycheck makes a new careerist more accessible to his creditors and that new careerists often have difficulty in budgeting a monthly instead of a weekly check.

The only evaluation of supportive services as such was made in New York's Public Service Careers Program (National Committee on Employment of Youth, 1969) in which an outside consultant, using interviews with staff and new careerists and the results of a new careerist questionnaire, reported on the effectiveness of the program's counseling staff and the problems created by varying staff roles and staff attitudes toward their own work.

The kind and quality of services needed depend both upon the life situations of the new careerists and the special demands placed upon them by their jobs. In addition to the question of determining needs, there is the further question of the ways in which needs can best be met: by referral to outside agencies, by program personnel, by the new careerists themselves, or by other specially trained non-professionals. The latter have been shown to be very effective in reducing turnover in a manpower training program for youth (*New Careers Newsletter*, Aug. 1967).

Job Supervision and Relations With Professionals. Evaluations of job supervision have been based sometimes on the observations of program staff or outside consultants, sometimes on the feedback obtained by interview or questionnaire from new careerists and their supervisors. Some evaluations focus on the new careerists, some on the professionals with whom they work.

The School Community Worker Program evaluation (Conway, 1967) considers the problems raised for the new careerists by conflicts among professional staff, by dual supervision (core program versus agency staff) and by the differing perceptions of the new careerists' roles and expectations for their loyalty. The National Committee on Employment of Youth's career mobility study (1970) found that the trainee's perception of his future mobility was related to his attitude toward his supervisor, most strongly so when the supervisor represented an extreme position of a continuum of new vs. old approaches to supervision.

The welfare aide study (Cudaback, 1968) reports briefly on the results of intensive interviews with a random sample of 21 staff who were asked their opinions of aide skills and problems of aide-professional teamwork and on a poll of a sample of 159 staff who were asked about their attitudes toward the aide program. The parole aide study (Fagerstrom, 1968, 1969) also concentrates on the impact of the program on the staff. The reports note the problems created by race and class bias, by staff concern that the new careerists might be a threat to their

jobs (would they take over? would they show up the professionals by being more effective?), and by resentment that the new careerists were handed things (e.g., an education) for which they had had to work. Shifts in attitude over time are noted, for both aides and staff, as reflected in changes in vocabulary and dress. Differences among the "unit subcultures" of the agency are also discussed, particularly differences in the value systems and conceptions of program goals of the staff working in each unit. The parole study, among others, points up the problems of collecting data on new careerists and the program through the employing agencies. Even though in this case evaluation was done by the agency itself, research staff were asked not to approach those staff units which were most resistant to the new careers program. Some formal interviews were conducted, but a good deal of the data was obtained through casual contacts and observations and through attendance at aide meetings.

Many questions remain for systematic study. Can professionals work successfully as communicators and supervisors with nonprofessionals? what kinds of skill and skill training are needed? what kinds of professional attitudes and stance and what kinds of relationships contribute most to effective performance in a given situation (for example, it has been noted that both hostility and uncritical enthusiasm have been detrimental to new careerist functioning?

IS THE NEW CAREERIST A CHANGED PERSON?

Personal and social role changes in new careerists are often described. There are many case study type of references in program reports to increased feelings of competence and self-worth as a result of program participation, particularly as participants have shifted from welfare status to earning money. Attention is also often given to more external manifestations of role changes—shifts in dress, speech, work habits, and attitudes. These have not been systematically studied, nor the kinds of experiences on the job that lead to them, nor their relation to actual job performance. We do not yet know what changes, beyond the job opportunity and perhaps the acquisition of specific job skills, are necessary for the new careerist to function in his new work role, or more precisely, what changes are necessary for specified kinds of new careerists to function in specified kinds of work roles.

Two major issues have been raised in this area. One stems from the statements on delinquency and opportunity structure by Cloward and Ohlin (1961): Is access to a job all that is needed to move the poor out of poverty and into the economic mainstream, or is something more required—some attention to problems within the person that hinder making use of the opportunity or some additional kinds of learning to which he needs to be exposed? As a result of their experiences with offender new careerists the Grants proposed a study (National Council on Crime and Delinquency, 1967) in this area. The original study differed from many programs in that there was rapid advancement and assumption of responsibility by the new careerists following training although there was no formal career ladder. It was noted that some of the trainees seized opportunities quickly and effectively while others, specifically those from whom most might have been expected, were in

constant difficulty and needed continual support. A follow-up study of these and other new careerists was planned in which small groups of new careerists and significant others in their lives would be brought together with staff from their employing agencies to study the relationships between personal and job functioning and development. The study has not yet been funded but a pilot study of Mexican-American new careerists (Grant and Rodriguez, 1970) has been conducted.

The other issue has been phrased in several ways. Is it necessary to middle-classize the nonprofessional so he can negotiate his career or is it possible for him to retain his basic values and orientation, shifting only enough in his job-related behavior to function in the work setting? Is some conflict with professionals necessary to maintain a ghetto identification? If the professionals with whom he works are accepting and genuinely respect the new careerist, does the need to defend a ghetto identification disappear and become replaced by a desire for assimilation? If his role is that of linker between agency and clients and he assimilates, does he lose his effectiveness? Does being respected by professionals mean selling out? Does participation in a new careers program coopt the potential for social action? This issue has become tied to points of view about social change: does one work within the system and thus strive to become a part of it, or does one fight efforts at assimilation, use the new career placement as a way of mobilizing community involvement, and force system change from without? The value aspects of these questions have become so loaded they are difficult to study. The only relevant investigation is reported by the Minneapolis new careers program (University of Minnesota, June 1969) which concludes that "professionalization" is a process of adding on new role skills and does not require giving up roles acquired earlier.

Does New Careers Pay Off?

From the standpoint of the funding source, is putting a person in a new careers program any improvement over alternative uses of funds and manpower? Several studies have compared training costs with monies saved on welfare support and/or with new monies generated by the employed new careerist. In a study of aides in a county welfare department (Cudaback, 1968) the potential welfare costs to the county of the 14 women, all prior AFDC recipients who are now employed as aides and living independently of welfare funds, is reported. The estimate takes into account the number and ages of the children involved, though the data is not fully presented. A study of home health aides (Hoff et al., 1968) computed the annual return of tax dollars to the public (federal income plus state sales taxes) and compared it with training costs to obtain an annual return on money invested in training. The estimate assumes the aides are all employed full-time and, apparently, that they had supplied no tax dollars prior to training. The study also computed returns on the training investment for those aides who had formerly been on welfare, combining tax dollar returns with savings in AFDC support. A study of costs and benefits in the Minneapolis new careers program (Brandt, 1968) also uses savings in welfare costs as one measure of benefits, using projections over a 20 year period and making some assumptions about the employment status of the program

participants over this time. Welfare savings are combined with estimates of tax returns on the additional earnings made possible by education over the same period for a projection of future benefits which are then compared with project costs for a two-year period. A different measure is proposed in a paper on public service jobs for urban ghetto residents (Harrison, 1969), the present value of the extra GNP contributed over a six year period by a newly trained worker in a public service job. The GNP projections are made using three alternative discount rates and three sets of assumptions about the magnitude of the contribution per new worker. They are then compared with two estimates of training costs.

These studies are restricted to the benefits obtained by having new careerists employed rather than unemployed or underemployed. Less attention has been given to the benefits obtained by having new careerists employed effectively. The School Community Worker Program report (Conway, 1967) suggests that the new careerists can save the schools money by improving attendance (thus making the new careerists eligible for increased funds from the state) and by decreasing vandalism. Some figures in support of the latter are given. It is also suggested that the new careerists can expand services to clients beyond those previously provided by making home visits and by in-school counseling contacts. Numbers of visits and counseling contacts are reported, but these are not related to client effects.

Only one cost-benefit study that we know of has approached the issue of service to the client. This research in progress is being conducted by Eaton Conant of the Industrial Relations Institute of the University of Oregon under an Office of Education grant. The study is notable for its focus on the service product, both efforts to assign costs to the direct observation of work activity and to apply cost-effectiveness analysis to learning achievement under various staffing patterns. The study is described (Conant, 1970) as follows:

Costs and benefits of conventional, single teacher classroom staffing patterns are being compared to the costs and benefits associated with staffing patterns that assign teaching aides to teachers.

The principal cost categories that are being compared for the two staffing patterns include costs of recruitment, costs of current classroom operations, and instructional labor costs. Recruiting and current operations costs are being determined from budgets, expenditure records, and review of program operations. Details concerning differences in instructional labor costs for the nonaide and teacher-with-aide situations are being obtained by performing activity observation studies of teachers and aides in class situations. The objective of the observation studies, which are carried out in classes, is to identify changes that may occur in teacher teaching and nonteaching activities when aides are introduced as teaching assistants. When activity changes are identified, the study is assigning costs to the relative activity changes observed by assigning appropriate hourly labor cost figures to the task data.

Relative benefits of the teaching aide programs in the district are under investigation in the following ways. First, benefits are being assessed in terms of potential cost savings nonprofessional program arrangements may obtain in comparison to costs of conventional staffing arrangements. One model being tested for cost savings analysis assumes that districts may employ aides as a

substitute for expanding the certified teaching staff in districts. The model then examines the possibilities that program quality can be maintained when lower salaried aides are recruited and substituted for teachers who might otherwise be employed.

The principal effort to identify aide program benefits involves attempts to identify and compare learning achievement gains of children who are instructed under alternative staffing arrangements. Thus in ghetto schools in a northwest city reading achievement scores have been obtained for children who are being instructed by single teachers, teachers who have aides assigned for reading remedial instruction, and by remedial reading aides.

The observation studies, mentioned above, indicate that in this school district aides are instructing children during the school day for slightly more net teaching time daily than either teacher with or teacher-without-aides assigned to them. Correlation analysis is being used to determine if the children who are instructed by both teachers and aides in the teacher-with-aide situation are making greater achievement gains than children in the conventional single teacher setting. The cost-effectiveness analysis will then relate the relative costs of the staffing alternatives (labor costs principally) with relative achievement gains experienced in the different staffing patterns to obtain cost-effectiveness ratios.

Finally, the study is experimenting with more abstract models of aides staffing arrangements to explore cost-effectiveness implications of alternative aide assignment possibilities. For example, the real observation data about teacher and aide labor inputs are being used to project alternative labor input and cost patterns where it is assumed that limited changes are made in actual staffing schedules that have been observed.

THE PARTICIPATING ORGANIZATIONS

A study that limited itself to the questions discussed above, no matter how well thought through and thorough the evaluation, would miss the whole point of new careers. New careers envisions changes in systems—in the organizations that provide delivery of human services, the colleges and universities that provide manpower for them, and the civil service entities that test and certify that manpower.

Employing Agencies

If a new careers program is working as intended, changes can be expected in the structure of the agency, in staff roles and functions, in the agency's service product, and in the agency's relationship with the community.

First, what moves has the agency made to accommodate nonprofessionals within its table of organization? Are aide or trainee positions introduced into the agency as token appendages to the existing system without in fact modifying it at all (which is likely to happen when the nonprofessional task is a minor part of what the professional is already doing) or does the use of nonprofessionals entail some reorganization in the agency's personnel structure (which is more likely to happen when the nonprofessional job has been developed as a result of a task analysis of the agency's functions)? What strategies have been developed as a result of the agency's functions)? What strategies have been worked out to assume the full costs of the new careerists after federal funding ceases and to make their positions permanent?

Almost all new careers programs report the lack of viable career ladders (or lattices) as the major program weakness. Even among persons dedicated to careers it is sometimes assumed that the presence of new careerists within an agency will in itself create pressures for change and force the development of career ladders. There is little evidence that this has happened, at least in established agencies in which new careerists represent a small addition to the work force. What has been done about the question of upward mobility is crucial in transforming a nonprofessional job into a new career. For example, do the entry positions include opportunities for experiences that will lead to job upgrading or is the entry position such that no upward movement can logically develop (as with a teacher aide whose job is limited to cleaning erasers and running errands and a ditto machine)? Have career ladders been spelled out for the entry positions? Are links built into existing promotional ladders, or are new ladders created parallel to the existing ones (both models have been used in new careers programs)? What opportunities are there for horizontal mobility, allowing increases in salary within a given grade for those who do not choose to move to different functions? For diagonal mobility, allowing movement from one agency to another? Most important, what is the relation between what's on paper and what really happens to new careerists in the system? When there is disparity, can this be traced to failure of commitment on the part of top agency staff, or to problems external to the agency?

It is expected that the functions and roles of professional staff will change as a result of new careerist participation. When new careerists take on a piece of existing functions, either as junior professionals or by assuming a part of the professional's job that is really nonprofessional in character, it is expected that professionals will be freed to exercise their truly professional skills. What in fact does the professional do with his freed time? When new careerists perform new functions that professionals have neither the time nor the skill to handle it is expected that the professional's performance will be enhanced. How is the professional's role changed and in what ways is his effectiveness altered? What new skills does he develop? In many cases new careerists are expected to help the professional better understand his clients. How does the professional's perception of his clients change? Does he become more tolerant or more sensitive to their needs? Does the work of new careerists lead professionals or their administrators to a questioning of professional practices? Does it force greater accountability for the effectiveness of professional service? When professionals function as supervisors to new careerists they often report less time available to work with clients. What are the demands of supervision and how well are professionals prepared to meet them? What staff training and development are offered by the agency for both professional and nonprofessional to facilitate communication between the two and to improve the quality of their work?

It is expected that the use of new careerists will improve the agency's service product, both through services performed by the new careerists and through improved professional performance. What changes take place in service delivery as a consequence of nonprofessional participation? Does service improve in any demonstrable way—in its quantity, its quality, its accessibility?

Finally, what happens to the agency vis-à-vis the community? Is there more

sharing within the agency itself between administrators and staff, and between staff and clients? Do new careerists facilitate feedback from clients to the agency and does this in any way affect agency practice? Are there shifts in community attitudes toward the agency and toward the adequacy of services it provides? Is there increased input from the community to the agency as a result of the new careerists' work or are new careerists used solely to interpret the agency to the community and to diminish the pressures it places on the agency for change?

Several studies have dealt at length with the agencies employing new careerists, the shaping of the program by the agency and the program's impact on the agency, and the problems of institutionalizing new careers positions (see especially Ballard and Alley, 1968; Fagerstrom, 1969; Larson et al., 1968; National Committee on Employment of Youth, 1967, 1970; and Gartner, April 1969 for a summary of these issues). There have been three attempts to develop models for nonprofessional utilization and to use them to understand the development of new careers within the agency.

The evaluators of the Minneapolis new careers program, in a study of the nine participating agencies (Larson et al., 1968), developed a "function-model" of nonprofessional tasks as a way of classifying aide jobs. The model consists of nine sets of job duties, grouped into three major functions: influencing (orienting clients, bridging between agency and clients); service (expediter, outreach, developer), and therapeutic (role model, supportive role, helping role, intervention role). There is no hierarchy among these functions, either of complexity or desirability. Rather the model is intended as a way of describing what aides do and making comparisons across agencies. It was found that some agencies have aides performing a variety of functions while others limit aides to one function at a time. The authors suggest that some functions may offer a better basis for developing careers than others, that inservice training is essential to give direction to whatever functions are performed, and that jobs with a variety of functions may be more meaningful than those with only one.

Fagerstrom (1969) discusses the implications of two organizational models utilized in the California Department of Corrections new careers program. The first deals with the assignment pattern of the parole aides: assignment to a regular parole unit (assignment of the aide to one parole agent on a permanent or on a rotating basis, or assignment of the aide as a resource to all agents in a unit) versus assignment to a special parole unit. The second model, which cuts across the first, concerns the aide's major function: line functions (the aide doing low level agent tasks or providing new services on an individual case basis, the career goal being a parole agent job) versus staff functions (the aide providing increased client services through his knowledge of the community, the career goal being a newly created career staff position). These models emerged as part of the agency's efforts to implement the new careers program in various parts of the state. The effect of these models on the attitudes of agents and of aides is considered, as well as their relation to staff perception of program goals and their implications for training.

The career mobility study (National Committee on Employment of Youth, 1970) developed what is described as an approximation to a functional task analysis

of the jobs performed by the 26 new careerists in the study through a checklist of job tasks filled out by each new careerist and by his supervisor. The 25 tasks were clustered into five main categories: outreach; information and communication (verbal); information and communication (written); administration, organization, and supervision; and testing and teaching. It was found that most of the new careerists held generalized jobs requiring the performance of a large number of tasks; that the same tasks tended to be performed in all agencies, despite differences in agency service goals and the nonprofessional job titles used; and that the same tasks tended to be performed by young college graduates in entry level jobs in these same agencies. The task analysis was used to verify agency reports of broadening of services to clients and increasing involvement with the community.

The most sophisticated effort to look at what new careerists do is described as part of an approach to job and career development (Fine, 1967; Wiley, 1969). A set of scales of worker functions related to data, people, and things has been developed which can be used to describe job tasks in an ordering of increased complexity and which provides a standardized vocabulary that can be applied across job fields and to professionals and nonprofessionals alike. To use these scales it is necessary that the agency first specify clearly the tasks that need to be performed. Defining tasks in terms of functions then offers a base for reorganizing tasks into jobs and for developing career ladders based on a rational utilization of worker training, education, and experience.

Education

Movement up career ladders is still strongly tied to academic credits and degrees. A new careers program is not expected to work unless it is linked with an appropriately modified educational system. This includes modifications in entrance requirements, in course content, and in credentialling procedures. No one has yet set up such a system, but movement toward this goal can be documented.

First, is there access to secondary and higher education for the new careerists? Are admission procedures modified when necessary to allow new careerists to qualify as students who would otherwise not do so? Courses offering college credit are sometimes set up for trainees in a new careers program, but this is often done through an extension division or through some other special arrangement that does not permit the credits earned to be applied toward a degree. Is the new careerist, once admitted, in the same status as a regularly admitted student, and if not, what moves have to be made before he can be so admitted?

Education is expected to provide the new careerist with the theoretical knowledge he needs to perform on the job. Education in a new careers program should not only parallel but be integrated with concurrent work experience. Changes can thus be expected in the content of what is taught and in its methods of presentation. What efforts have been made to link course content to the work in which the new careerist is engaged? How have agency staff been brought into the planning and carrying out of the educational program? One would expect more learning through doing and more active participation by the new careerist than is the case with regular course work. Are the new careerists able to feed their work experience into

their ongoing education, and are they able to translate what is learned back into their work activities?

Education is also expected to help the new careerist acquire the credentials necessary for upward job mobility. Various modifications in accrediting procedures have been reported, for example, allowing academic credit for work experience by on-site teaching or by appointing agency staff to teaching positions, or by setting up special degree programs short of the B.A. Such credits are of little use, however, unless they can be applied toward degrees in four-year colleges and/or accepted as part of the necessary credentials by civil service and by employing agencies. What efforts have been made to link education to career mobility?

The University of Minnesota has made a number of changes as a result of its participation in the Minneapolis new careers program (Minneapolis New Careers Program, 1969; University of Minnesota, February 1969; Wattenberg, 1968). For example, part of the core curriculum developed for new careerists through General Extension is now being made a part of the standard curriculum for General College students. Twelve new careerists have been hired part-time as Cultural Education Specialists to serve as resources to faculty in courses related to social problems, poverty, and race. They have assisted in courses in education, social work, sociology, social studies, and dentistry. Moves toward a credentialling system have been made by developing a 45 credit certificate, though this has yet to be accepted by civil service and by employers.

The only effort we know of actually to alter the total educational experience and tie it in with work experience is a demonstration currently under way in the administration of justice field (Frankel et al., 1969). The goal of the demonstration is the development of a model of education from the third year of high school through the four years of college that will integrate education with preparation for and participation in work activity. Participants in the demonstration include staff and new careerists from potential employing agencies (probation and parole) and teachers and students from a high school, a community college, and a four-year college. Sample courses are being developed as well as procedures for using student contracts with the educational institution to fulfill educational goals. Small scale implementations of the model are planned for the coming year.

Civil Service

The policies of civil service systems often represent a major obstacle both in making entry positions permanent and in developing career ladders. Entry requirements may be waived for new careerists but it is apparently far harder to break the traditional link between education and advancement beyond the entry level, despite the fact that there is little evidence that the possession of a B.A. in itself has any discernible relationship to job performance. However, many civil service systems have made moves to modify both testing procedures (e.g., eliminating written examinations) and job requirements (e.g., giving credit for life experience or for training given on the job in lieu of education), and in some cases they have shown greater readiness to move than the agencies they serve. What moves have been made by program staff to work with civil service (and with professional organizations and unions where necessary) to change requirements for jobs or to redesign jobs for

both professionals and nonprofessionals? What has been done to establish links between entry jobs and existing career ladders or to develop new career ladders? What efforts have been made to look at the tasks performed by the agency, to relate these to agency goals, and to restructure jobs at both professional and nonprofessional levels?

These issues are discussed at some length in the career mobility study referred to above (National Committee on Employment of Youth, 1970). It was found that even agencies not under civil-service set up barriers to career advancement very much like those found in agencies under civil service regulation. Great confusion was found within and between agencies on the designation of jobs considered professional and those considered nonprofessional and in at least one both kinds of workers were performing identical tasks. Unions were found to have had a positive effect in the agencies studied on wages and job benefits but little impact so far on opportunities for career advancement. Potential conflicts with unions over the issue of job restructuring were noted, the pressures to advance new careerists through reclassifying jobs conflicting with the job security of existing union members. In other areas, however, unions are reported to be playing a major role in developing opportunities for job upgrading (Gartner, April 1969).

THE COMMUNITY

New careers programs have had a number of unanticipated spinoffs. One of the most important is the movement of new careerists into community and political action roles. New Careerists are reported to have become involved in community organizations, often around job-related activities, as a result of their participation in the program. There are a number of local as well as national new careerist associations. New careerists have organized to bring pressures for change on the agencies in which they work and on professional organizations. They have been involved in political campaigns. New careerists have testified before congressional committees and have been responsible for helping draft both state and federal legislation.

The interests of new careerists have in many instances merged with community demands for improved services and for control over agencies serving the community (Gartner, April 1969; National Committee on Employment of Youth, 1970). New careers programs have also become the ground for power struggles between agencies and the community and among factions within the community. In many large cities new careers programs have included mainly blacks. In some, chicano groups have begun to challenge this apparent domination, and the issue of community control has turned into the issue of whose community is being represented. As in other reform efforts there is the question of how much energy is being drained off into jurisdictional disputes. This provides some evidence against the argument that new careers coopts the potential for social action. But all new careerists do not necessarily move in this direction. What conditions within the program, and within the larger community make for commitment to social action? What effect does action by new careerists have on the effectiveness and viability of the new careers program?

ISSUES IN OVERALL EVALUATION DESIGNS

The evaluation efforts reviewed thus far have varied from unsystematically obtained impressions of program staff to comparisons between questionably adequate experimental and control groups. There are available, however, three models for longitudinal evaluation of total new careers programs. The National Committee on Employment of Youth developed such a model as part of its evaluation of the New York Public Service Careers Program (1969). Operations research presented another (1968) in its approved proposal to the Office of Economic Opportunity for a three year cross-program evaluation of five federal manpower training programs, one of which is new careers. The third was developed as a part of the Economic Systems Corporation new careers evaluation report (Ballard and Alley, 1968).

Among the three arise issues concerning (1) the use of control groups and the question of matching, (2) the use of multiple regression and/or equivalents which do not make the assumption of linearity, (3) the appropriate kinds of outcomes to use for cost/benefit analyses, and (4) the use of program development and organization change as outcomes.

Control Groups and Matching

Objections to random selection of persons for training or other service programs are usually made on the grounds that some persons would be harmed by a given treatment or, alternatively, that it would be wrong to deny a given treatment to a person assumed to benefit from it. Operations Research handles this issue for its five program evaluation through what it calls an idealized sample design. The design calls for obtaining a probability sample of the target population, then determining the eligibility of each person in the sample for each available program. Persons found eligible for only one program are divided randomly into a control group and a group for which attempts are made to recruit them into the program. Persons eligible for more than one program are divided randomly into four groups, one to be used as a control. For the other three, attempts are made to recruit into programs for which they are eligible, one group being allowed to choose the program they will enter, one group being assigned by an expert to the program considered best, and one group being assigned to programs on a random basis. The proposal refers to two studies in which this design was successfully employed, one on the potential impact of medical rehabilitation services carried out in Baltimore by the Commission on Chronic Illness, the other in Kansas City by Community Studies, Inc. and the University.

Another approach to this problem is offered by Wilkins (1969; see Figure 16.1). His model was developed for confined offenders who had no choice over treatment assignment, but it is applicable to the same problem posed by the Operations Research evaluation.

Possible alternatives to random assignment designs are discussed in the Operations Research proposal. Here they are in the field of quasi-experimental designs and nonequivalent control groups discussed by Campbell and Stanley (1963). These alternatives break down to two basic categories. One is the use of natural groups,
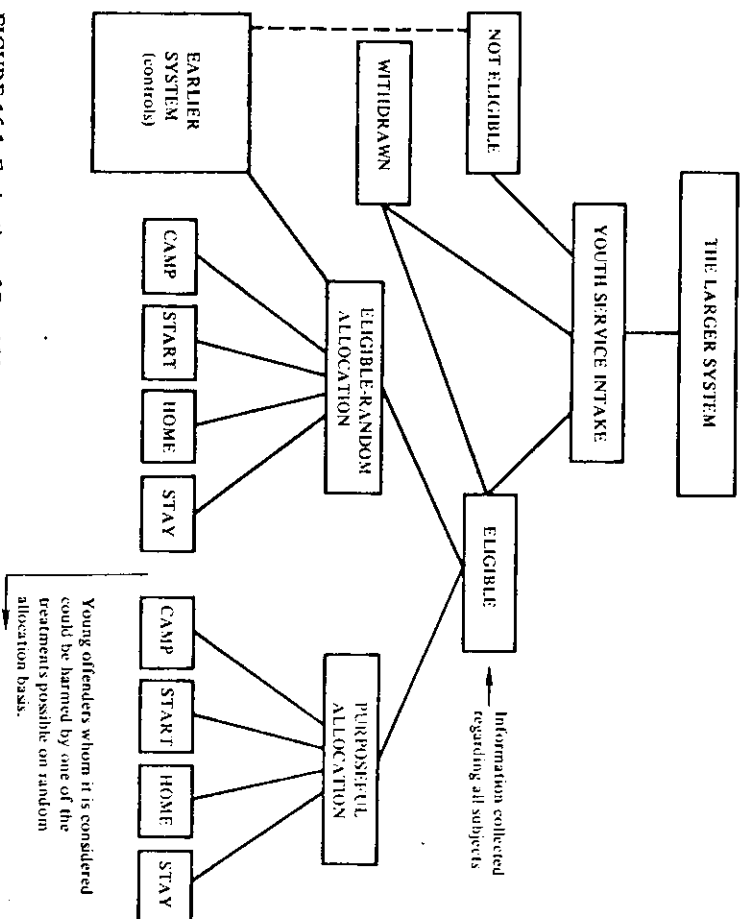
FIGURE 16.1 Evaluation of Penal Measures

such as other classes of students in evaluating the effect of variation in classroom instruction. This can be viewed as a representative design issue (Brunswik, 1947) where statistical control can be used over the natural variance occurring across kinds of programs and kinds of inputs in kinds of situations. Multiple regression with its alternatives (see discussion below) can be used to test the impact or a given intervention as a variable in the multiple regression equation. This is an extension of statistical control through the use of covariance designs.

The second is the creation of a control population by some system of matching. As opposed to the sophistication of the Operations Research model, that proposed by the National Committee on Employment of Youth uncritically advocates the use of a group of matched controls. They argue, "Given the probability that it will not be feasible to place serious reliance on a highly experimental approach within the context of the proposed evaluation, it is important to identify and define a *control* group of individuals with characteristics similar to that of the experimental group. This group will *not* participate in the New Careers program, but they will be included as part of the follow-up study to provide comparative data as to differences in terminal (end of study) job satisfactions, career advancement, and economic upgrading, if any. . . . Careful matching of controls with those receiving training is very important precisely because randomization is not used in assignment of treatments to subjects." There is no discussion of the impossibility of defining a

comparable control group, nor of the variables on which matching is supposed to take place, nor of the pitfalls in analyzing and interpreting data derived from such a matching procedure. In addition to Campbell and Stanley's (1963) cautions about creating controls through matching, there is a discussion of matching in Wilkins' book *Social Deviance* (1965). Both are must readings for anyone approaching evaluation designs for new careers.

There are three essential arguments against matching rather than applying statistical techniques for control. First is the problem of unknown correlates of the variables used for matching with the dependent variable and other variables assumed to define the population. For example, one of the more obvious population contaminations through matching on measured intelligence is its impact on the ethnic mix of the groups so matched. A second problem is the regression effect which occurs when the control group selected by matching has a different mean and distribution than the population from which it was drawn. The third is the inappropriateness of estimates of error variance where there is not base of randomization.

These quasi-experimental-control designs are not to be confused with stratified designs where random assignment to experimental and control groups within a stratification with a known relationship to the dependent variable is used. When we reach this level of sophistication in new careers research we can improve upon (reduce the N's needed for a given level of significance) by introducing stratification into random assignment designs. This is a completely different game than artificially matched groups without randomization.

At least until we have learned much more about the parameters in the natural variance of existing program models, we should concentrate on determining the nature of variation among what is and what is not, rather than getting hung up on measuring differences between what is and what is not, that is, an artificial control. The question becomes what is the relevant information over a representative set of programs which will help us predict- contribute to the accountable variance—of identified outcomes. From this information concerning what makes a difference we can construct new models to put into the field of competitive programs for further clarification of the significant patterning of variables for increased efficiency—improved outcomes through approximations. This calls for continued system building and system testing through the use of multivariate prediction techniques.

Multiple Regression

The Operations Research model depends upon a multiple regression analysis over kinds of programs to determine what new careers program variables over what input variables contribute how much to identifiable outcomes.

The proposal raises the issue of the excessive amount of information conceivably useful in the prediction equation and poses two procedures for deciding what information to use. The first is analysis of variance to determine which variables have first order correlations with the dependent variable and to test hypothesized specific interaction effects. One would then include in the multiple regression analyses those variables and hypothesized interactions which were found to inde-

pendently related to the outcome criterion. The multiple regression would allow a weighting of each variable, including the interactions, as to the magnitude of the contribution to the accountable variance.

The second proposed solution to the variable selection problem is the Automatic Interaction Detector (AID) program developed by the University of Michigan (Sonquist and Morgan, 1964). The advantage of AID is that it provides an efficient means for detecting all interaction effects between a prespecified set of variables. Regarding one of a set of thirty-seven variables as a dependent variable, "the analysis employs a nonsymmetrical branching process, based on variance analysis techniques, to subdivide the sample into a series of subgroups which maximize one's ability to predict values of the dependent variable. Linearity and additivity assumptions inherent in conventional multiple regression techniques are not required."

Other solutions are available (MacNaughton-Smith, 1963) and have been shown to improve the prediction obtained by multiple regression alone (Gottfredson and Ballard, 1966). The optimal form of multivariate analysis in prediction techniques will be a continuing problem. For the present one should use alternative solutions with cross-validation groups to empirically test which solution is most effective with which sets of data.

The problem cannot be avoided by simply testing differences between experimental and pseudo-control groups as proposed in the National Committee on Employment of Youth model. Statistical control must be employed and provision must be made for the limitations imposed by multiple regression additive and linearity assumptions.

Kinds of Outcomes for Cost/Benefit Analyses

In addition to benefits accruable through changes in the new careerists themselves, it is plausible that benefits will be obtained through increased effectiveness of service to clients. Children will learn more, welfare recipients will be healthier, probationers will be less delinquent. The Operations Research proposal nicely states the possible benefits to be analyzed concerning the development of the new careerist, but they do not consider the benefits for improved client output which follows from analysis such as that described above (Conant, 1970) where students have more time in a learning situation when new careerists are used as instructors than when teachers do the instructing alone. These findings take on particular benefits significance when improved learning scores accompany the improved classroom situation.

Further, we should look for benefits from increased organizational efficiency. The staff participation introduced through new careers could bring better communication, better attendance, and more effective performance among all persons working in an agency. In spite of some reported initial resistance to new careers by agency staff, there are also reports of a contagion effect (Grant and Grant, in press) which would result in improved morale and functioning for the entire staff. Recent work with the Oakland, California, Police Department (Toch, 1969) suggests the power of a general participation staff and program development strategy for increasing organizational...

Phases	Strategies						Goal ("Ideal") for Interface
	S_1	S_2	...	S_j	...	S_k	
P_1	P_{11}	P_{12}	...	P_{1j}	...	P_{1k}	P_{rj}
	I_{11}	I_{12}		I_{1j}		I_{1k}	I_{rj}
	O_{11}	O_{12}		O_{1j}		O_{1k}	O_{rj}
	F_{11}	F_{12}		F_{1j}		F_{1k}	F_{rj}
P_r	P_{r1}	P_{r2}	...	P_{rj}	...	P_{rk}	P_{rj}
	I_{r1}	I_{r2}		I_{rj}		I_{rk}	I_{rj}
	O_{r1}	O_{r2}		O_{rj}		O_{rk}	O_{rj}
	F_{r1}	F_{r2}		F_{rj}		F_{rk}	F_{rj}

P_{rj} is expecteds given Strategy j and Phase r for planning.

I_{rj} is expecteds given Strategy j and Phase r for implementation.

O_{rh}

O_{rj} is expecteds given Strategy j and Phase r for operations.

F_{rj} is expecteds given Strategy j and Phase r for feedback.

FIGURE 16.2 Interface for Developmental Model for Evaluating Social Science Programs

Program Development and Organization Change As Outcomes

The Economic Systems Corporation model is concerned with organization change within agencies as an outcome for evaluation. Program development is described as movement toward a goal over a set of interfaces where an interface is defined as a potential interchange between the new careerist and a facet of the program. Subgoals to the total program development goal can be stated for each program. Movement can be broken down into phases, and alternative strategies identified for movement toward both total goal and subgoals within each phase. From the strategies it is possible to identify what would be expected to happen if the movement necessary for the appropriate change in development to occur were taking place. Evaluation observations can also be identified to allow determination of the extent to which the expected is actually occurring. These expecteds can be stated for planning, staffing, implementing, operating, follow-up, and feedback for each phase of the developmental process. Figure 16.2, taken from the Economic Systems Corporation report, presents the model schematically for four program areas.

New careers represents an attempt to bring about institutional change. Many of the issues raised in this review have implications beyond the evaluation of specific new careers programs, to the development of a strategy for studying change itself.

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