

SPACE SCIENCES LABORATORY

THE "DISADVANTAGED":
UNEMPLOYABLE OR JUST UNEMPLOYED?

A Report on Training
for University Employment

By Stephen Zwerling

Supported by NASA Grant Nsg 243



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INTRODUCTION

Over the past several years a number of our urban centers have erupted in violence and disorder. The manifest discontent of urban residents has carried with it a clear message: the established institutions of American society disregard the disadvantaged sector of the population.¹ The University of California is one of the established institutions, and today it is analyzing its relevance to the surrounding communities. The University, as seen by the disadvantaged community, is irrelevant; urban spokesmen express a desire to see it become positively relevant, i.e., contribute to the betterment of the socio-economic position of the poor. Thus, the University must determine whether or not the problems of the disadvantaged are an appropriate concern of a university, and, if so, which of its activities relate to that concern.

As a part of the University's response, President Charles J. Hitch recently asked the Vice-President for Planning and Analysis to prepare an inventory of statewide campus activities that relate to urban problems. When the results of that inventory are known, the administration will decide

¹*The New York Times* (January 30, 1968), commenting upon President Johnson's budget message, made some interesting comparisons on government expenditures. According to the Johnson administration, approximately \$21.1 billion were devoted to federal aid to the poor in fiscal year 1967; if that statement is accurate, it is interesting to note that that figure is approximately equal to the amount of special funding required to pursue the war in Viet Nam during the same period. Yet the 29 million poor Americans supposedly benefiting from these programs represent a population approximately twice that of South Viet Nam.

Furthermore, the Economic Opportunity Program, the one federal program designed to lift the poor above the poverty level, spent just \$1.5 billion for that purpose in 1967. This corresponds to less than one month's expenditure for the war in Viet Nam, and, on a *per capita* basis, amounts to less than the *economic* (non-military) aid to Viet Nam.

what action is appropriate for the future. If, as is popularly assumed, these urban-focused activities largely emphasize research, the University will have to determine: (1) whether research, in and of itself, is the single appropriate function or (2) other contributions (e.g. training) are functions worthy of interest. Underlying any answer to such questions is an implicit statement by the University about what and to whom it is relevant.

Urban issues may be viewed as abstract (theoretical) or concrete (practical). If, however, the test of theory is the generation of policy, and if policy is measured by the effective implementation of action programs, the University has before it a superb opportunity: (1) to perform research on problems of, or approaching, crisis proportions (which, presumably it is already doing) and (2) to utilize the findings of such research in the creation of imaginative action programs for the resolution of urban ills.

If, in its commitment to contribute to the resolution of urban problems, the University becomes interested in action programs as well as research activities, two major benefits could accrue. First, while several major educational institutions have begun to organize themselves for an emphasis on urban issues, it is safe to say that: (1) there have been no widely accepted solutions as to how this can best be done, and (2) no single school has a monopoly on realistic solutions. Second, if departmental efficiency is adversely affected by a presumably high turnover of non-academic employees, as seems to be the case, systematic training of entry-level, career-oriented personnel could increase the efficiency of departmental operations. In addition, it is assumed that employee turnover would be reduced by seeking persons interested in long-term as opposed to

temporary employment. Finally, the University should acquire a new, *positive* meaning to groups which do not now participate significantly in the life of the campus community.

By engaging the issues, both in research and action terms, the University further bolsters its claim to being the foremost institution of higher learning in the nation. Society is beginning to accept the idea that the problems of the poor are going to have to be dealt with in more than a token fashion; one need only look at the subject matter of some summer television programs to realize that both the quantity and the quality of program offerings are a prelude to something far more significant than simply reducing the ratio of noise to action. Yet a recent article in a university journal, which assaults the claims made by most educational institutions of being forward-looking agents of change, noted that "colleges have given no evidence that they have the vision to solve or even to *see* the problem"² [*italics mine*]. Certainly the appeals of urban leaders for action on the part of this University necessitate some response, and it is in the best interests of the University, locally and nationally, to respond in a significant manner.

Rather than anticipate major changes on the part of the University, some urban leaders expect that the current inventory of urban-related projects on statewide campuses will justify the present posture rather than serve as a basis for more meaningful action. If this is the case, the University may be deceiving itself in thinking that it is buoying up a badly sagging image in the community. However, to the disadvantaged, this option serves only to confirm their suspicions: the University is basically

²Cohen, Audrey C. The College for Human Services. *The Record* (Teacher's College, Columbia, University), 69(7): 666 (April 1968).

white, middle-class, irrelevant to the poor, and — saddest of all — unchangeable. Thus, the gauntlet has most certainly been laid down by the disadvantaged, and if we at the University of California do not like the implications of the preceding opinions, the initiative is ours to take.

As a means of helping the University to see clearly and to choose optimally, this report suggests an area of potential contribution. It does not deal primarily with the two basic functions of a university — teaching and research — but rather with the organization as an employer and a trainer of people. This effort was prompted by a request from the Space Sciences Laboratory for an evaluation of a training program that it has been conducting over the last eight months for four disadvantaged citizens. This report takes on new significance in view of the recent statements of President Hitch and Chancellor Roger W. Heyns, which suggest that the University ought to play a more meaningful role in community affairs. Any reassessment of an organization's traditional roles and functions is inevitably painful and frustrating for its members, for they may discover that, while wishing to soar, they may only be running. On the other hand, if a university is to serve the needs of all the people, then perhaps this report will inform us as to the nature of an appropriate response.

THE IDEA OF NEW CAREERS

In 1966 Congress amended the Economic Opportunity Act (Title II, Section 205e) to provide for New Careers, a program authorizing grants to or contracts with state or local agencies to subsidize work training programs for unemployed or low-income adults. A major objective of this new program is to facilitate the creation of new careers within the public service; implicitly the hope is that New Careers will serve as a model for private as well as public agencies, for labor unions, and for the professions as well. More specifically, New Careers programs are designed: (1) to assist in the development of entry-level employment opportunities; (2) to provide maximum prospects for continued employment and advancement; and (3) to accomplish these objectives through a combination of supportive services, such as education, training, counseling, etc.

It is possible to document over the past thirty years the trend of many occupations toward professionalization. A central element of the New Careers concept is a different view of the world of work in that a separation of professional and non-professional tasks is advocated. At present it is explicitly assumed that those institutions offering a professional service to the public delegate both types of work activities to the professional. By separating the two it would be possible to create entry-level positions within professional categories and to staff them with non-professionals. Not only would this enable the professional staff to perform only professional activities, but it would also increase the economic efficiency of the organization as a whole. In addition, New Careers also seeks to develop definite "career

ladders" with particular emphasis accorded to the importance of upward mobility. The program's goal is not simply the provision of jobs for the poor; rather it seeks to provide the poor with the resources for entry and advancement in a career. In theory, the New Careers Program makes available many supportive services that facilitate the progress of the Careerist.

The core of New Careers is a training program to be completed within a three-year period. First-year costs are borne entirely by the federal government; in the second year, the government pays for the education of the trainee and one-half of the trainee's salary, the other half being contributed by the training agency. The latter is responsible for the full salary of the Careerist during the third year, but the government absorbs the educational expenses. Upon the completion of the training period, the Careerist becomes a regular full-time employee; if, however, he desires to seek work elsewhere, he should, by virtue of his academic and on-the-job training, be capable of securing employment in any agency, public or private, engaged in similar types of work.

To qualify for the position of New Careerist, the individual must meet the following criteria: (1) he must be at least 22 years of age, (2) family income must be less than the federally-designated "poverty level," (3) he must be unemployed, and (4) he must be a resident of Oakland.

In sum, the program is designed to provide the trainee with a solid base of practical experience in a particular profession; advancement is to be based exclusively upon the mastery of certain necessary skills. In addition, the Careerist devotes 25% of his time to academic classwork at a local college in the pursuit of an Associate of Arts degree so that at

the end of his training program he has at least two years of both work experience and formal education. Thus, the New Careers Program is an attempt to provide the poor with new opportunities, and it differs from most other poverty programs by requiring an educational component for the trainee.

NEW CAREERS AT BERKELEY

Although the New Careers Development Agency of Oakland (NCDA/O) sought out public institutions in which to establish training programs, in this case the University made the initial contact with NCDA/O. The Minority Personnel Representative on campus, who established the link between NCDA/O and various units of the University, has a major responsibility to increase minority employment. According to campus Personnel Office figures for 1967, of the 4,000 full-time, non-academic personnel at Berkeley, approximately 25% are Negro.³ It has been estimated that of the 1,000 Negroes, 400 occupy clerical positions, 500 are engaged in low-level service jobs, and 100 are situated at "higher" levels. Since New Careers is specifically designed with minority employment in mind, it could be of substantial utility to the University.

Following the initial contact by the Minority Personnel Representative, the New Careers concept was explained by some of the senior staff of NCDA/O to campus personnel supervisors. The latter explained the program to the personnel analysts, who informed the various departments for which they were responsible. In other words, the departments, who would be charged with implementing a commitment, received information of New Careers third-hand, and in the absence of follow-up by the NCDA/O staff, the departmental response was reported to be unenthusiastic. There were two other complicating factors. First, New Careers was presented to the University at a time when there was a "freeze" on budget and staff.

³The Personnel Office conducts a survey of ethnic origin by occupational class; however, because it is numerically coded, it is difficult to arrive at precise figures.

Second, it was presented as a social welfare program, in the spirit of "let's do something to help poor people," rather than as a program of manpower training, which, in this context, is not the same thing.

The Minority Personnel Representative was not highly supportive of the New Careers program for a number of reasons. First, it was impossible for the University at that particular time to commit itself seriously to future expenditures when the funding for current operations was in question. Second, in addition to federal guidelines surrounding many aspects of the program, he felt uncertain about the capacity of NCDA/O to co-ordinate the several phases of the program: education, training, counseling, etc.; the social welfare orientation of NCDA/O was of particular concern. Third, he was dubious about the applicability of New Careers to the University since, from an economic point of view, it is an expensive way to help very few people. Finally, since a "graduate" of the New Careers program has a junior college degree, his possibilities for advancement are somewhat constrained in an organization that produces and hires persons with a Bachelor's degree.

Nevertheless, the University had made a commitment at a central level (Chancellor's Office; Personnel Office), and since the initial presentation of New Careers had evinced little response from the operating units, the Minority Personnel Representative developed personal contacts through units known to be receptive to this type of program. Space Sciences Laboratory (SSL) was one such unit; the others were the Virus Laboratory and the campus Personnel Office. These units agreed to commit a certain minimum budget to the program and to regard the Careerist as a permanent employee. This means that if budgetary constraints necessitate reduction in staff size,

the Careerist will not be released. Several other campus units, including the School of Social Welfare and Cowell Hospital,⁴ expressed initial interest in participating in the program, but these commitments were not developed for various reasons.

Since New Careers represents the University's *first* effort to provide career opportunities for the disadvantaged, it is important for future efforts that the initial participants be successful. In recognition of this, the SSL management selected supervisors known to be good teachers or trainers and sympathetic to the problems of the poor. Due to the long-range objective of greater employment opportunities at the University, the short-term goal was to provide a successful initial experience. The method adopted was to utilize personal contacts in order that the fewest possible obstacles would have to be overcome. In sum, New Careers at the University of California reflects a series of single experiences rather than a broad attempt to move departments into training. While the Personnel Office has the broad understanding and the commitment, it does not have the full authority or support necessary to implement such programs.

⁴Although Cowell Hospital appears to be a logical choice for the placement of a Careerist, there is only one full-time, entry-level position; therefore, NCDA/O refused their request.

SPACE SCIENCES LABORATORY — PRINCIPAL PARTICIPATING UNIT

Currently there are four New Careerists in training at SSL: three as electronics technicians and one as a technical editor. What are the key variables accounting for the participation of SSL in the New Careers program? There are at least four factors that seem to be directly related to willingness to participate: (1) the nature of the management and personnel within a particular unit; (2) the nature of the funding process; (3) the nature of work activities performed in the particular unit; and (4) the amount of information distributed about the program.

Nature of Personnel

At SSL the initial stimulus to participate emanated from a strong personal commitment on the part of a few individuals to do something constructive to help the poor. These individuals, because they occupy positions of influence within the Laboratory, were able to extend their personal commitment to an organizational commitment. Having made the decision to act, these individuals began search activities on two fronts: first, for various alternative programs in which the organization could participate; second, for people on the supervisory level who not only share their degree of personal involvement but who are able to train and to communicate effectively with the disadvantaged.

The New Careers Program appeared to be the only available medium for this participation. To the supervisors selected for this program, New Careers did not represent a token effort of providing someone with a job, but rather the creation of a new opportunity. A seemingly realistic structure had been established with emphasis upon providing the Careerist with a set of keys to open what otherwise are locked doors.

Notably, however, had it not been for the perseverance of a SSL staff member, who voluntarily assumed responsibility for this program, it is unlikely that there would be a New Careers contingent at the Laboratory today. The Minority Personnel Representative lacked the time, the staff, and the administrative structure necessary to oversee such a program, particularly in the negotiating stage. It also became quite clear that NCDA/O was too inexperienced and too understaffed to manage the administrative details. In the absence of administrative capacity in both the University and NCDA/O, it would follow that those on the operational level — the supervisors — must absorb the administrative tasks of the program as well as the training.

The Nature of the Funding Process

During the first year of participation, NCDA/O assumes all expenses of the program save those of the supervisors' voluntary time spent on training. The Laboratory assumes 50% of the trainee's salary during the second year and 100% of his salary during the third year. By the end of the training program, SSL will have contributed approximately \$35,000 in *direct* costs for four trainees.⁵ This raises the question of how the necessary funds can be procured for such a program. The experience at SSL suggests one answer, although the Laboratory may be in a unique position relative to the majority of the campus community.

The primary mission of SSL, an organized research unit, is "to contribute to the advancement of knowledge through basic and applied research." The Laboratory employs about 400 people and has a total budget amounting

⁵In terms of costs to the federal government, NCDA/O received a budget of \$9,300 per trainee for 1967-68 and \$8,200 per trainee for 1968-69. Thus, if one were to compare the effectiveness of alternative ways of spending this money, he would use \$10,000 (*cost per trainee per annum*) as his base.

to approximately \$6 million; in other words, the Laboratory is one of the largest units on the Berkeley campus. Another unique aspect of SSL is the portion of the budget contributed by federal as opposed to state sources: 90% is funded by NASA (National Aeronautics and Space Administration). This suggests that the *size* of a unit varies directly with the *flexibility of spending* and that the *flexibility of spending* varies directly with the proportion of the *budget contributed by federal sources*.

However, these relationships may be spurious because NASA funds *non-scientific* as well as scientific activities. A *Memorandum of Understanding* between the University (SSL) and NASA specifically states that multidisciplinary research efforts to "bring all of the various applicable social, scientific, and engineering problems to bear on space-oriented research" activities are to be encouraged. In concrete terms, NASA contributes approximately \$200,000 to the Social Sciences Program at SSL, whereas the total amount of state support for the entire Laboratory is about \$90,000.

It is clear that, given an interest in training, campus units with large staffs and sizable budgets could participate more easily in training programs. However, the relationship between federal versus state funding and the ability to participate is less clear. Federal *grants* allow for more flexibility of expenditure than do state funds. On the other hand, federal *contracts* have strict provisions for accounting, and unless the contractor specifically approves of multidisciplinary research activities, state funds probably allow for greater flexibility.

It is difficult to draw definitive conclusions about the nature of funding as it relates to participation in training programs because the only participants are organized research units (SSL, Virus Laboratory)

or administrative units (Personnel Office). Both laboratories have large staffs and budgets, the latter being supplied mainly from federal sources. In order to make accurate generalizations, it would be necessary to present evidence pertaining to some of the teaching departments, which make up the bulk of the campus units. While the size of the budget and the flexibility of expenditures may be directly related, this does not inform us as to the role of the budgetary considerations in the decision to participate.

The size and source of funds are of secondary importance, however. The major determinant in participation is unit leadership. If leadership wishes to participate, then budgetary constraints can often be overcome.

The Nature of Work Activities Performed

In addition to space-related research, which is the primary activity at SSL, it is significant that there are other objectives of a social nature. In a letter sent from SSL to the Berkeley Graduate Division (January 10, 1968), Laboratory policy is stated: "to further national objectives in the social area by providing opportunities for persons of minority and disadvantaged backgrounds . . . [to] participate in programs to upgrade skills of minority and disadvantaged individuals." This suggests that scientific activities are a *means* for achieving non-scientific ends as well as ends in themselves. Of the 22 separate programs in operation at SSL, 16 are scientific or technical. The fact that two of the three units participating in the New Careers program fall into this category implies the possibility that there is something in the nature of work activities performed that relates to the likelihood of participation.

The larger the size of the unit, the greater the range of activities in which it is engaged. SSL, which employs approximately 400 people, is a large unit, and it pursues a wide range of interests encompassing several disciplines. It is involved in both basic and applied research activities rather than maintaining a primary emphasis on either teaching or basic research. Finally, due to the scientific/technical character of its work, the majority of its activities center around "things" rather than people. As contrasted with the School of Social Welfare, for example the College of Engineering engages in tasks for which the objective is specific, the methods for completing the task are clearly delineated, and the performance is easily measured.

In Social Welfare, on the other hand, the objective may be clear, but there appears to be no unanimity regarding methods for achieving the objective, nor is there a simple means of evaluating the results. Following from this point, one might suggest that the more specific the set task, the more likely it is that training programs can be initiated. If the preceding proposition is correct, one would suppose that any large campus unit involved with scientific or technical matters could participate in a program similar to New Careers.

Dissemination of Information

Some of the senior NCDA/O staff made the initial presentation of the New Careers concept to the senior staff of the campus Personnel Office; in turn, the latter informed their subordinates, the Personnel Analysts, about the program. The Personnel Analysts then presented the various units on the campus with the New Careers idea. The NCDA/O staff did

not foresee the necessity of following-up the initial presentation. As a consequence, these on-campus units, who were to be charged with implementing the program if a commitment were made, had little opportunity to obtain first-hand knowledge about the possibilities of a New Careers program in their particular units. During the process of channeling it through two intermediaries, there was considerable loss of information. One cannot reasonably expect unit administrators to sustain the initiative, and in the absence of further visits by the NCDA/O staff, the unit administrators did not maintain their interest in the establishment of a training program.

Subsequently, however, the Minority Personnel Representative notified those persons or units who had expressed interest in participating in this type of program. Seven New Careerists were then placed; two of these have since withdrawn from the program.

The more widely and thoroughly information is disseminated, the more likely it becomes to secure participation, especially in a new program that is generally unfamiliar to the public-at-large. The low level of participation may perhaps serve as a commentary on the NCDA/O organization. In order to secure involvement, the NCDA/O staff ought to have brought the information directly to the unit level (contingent, of course, on the approval of the campus administration). Furthermore, they should have been more diligent in consistently providing assistance to campus units in establishing an effective program. NCDA/O has, as its principal responsibility, the function of co-ordinating the several participating sectors of the program. As an administrative agency, therefore, its performance at the crucial stage of attracting the participation of

a potentially large-scale training unit has not been encouraging. Unfortunately, the evidence gained during the past seven months serves only to confirm the suspicion that NCDA/O lacks strong administrative capabilities.

This also has some relevance for the University, particularly if participation in some sort of action program involving more than a few of the disadvantaged is anticipated. The experience to date has shown the SSL management the futility of relying on NCDA/O for accurate information or for the various supportive services that it could provide. Since there is no campus co-ordinator for New Careers,⁶ the brunt of the program rests squarely on the shoulders of the training supervisor, who finds that in addition to the responsibility for training the Careerist he must also concern himself with the educational component of the program and with the Careerist's personal difficulties as well.

There has been, on the part of the supervisors, a genuine concern for the Careerists. While this extra assignment was voluntary, they have been more than willing to fulfill their responsibilities to the trainees. However, the administrative expenditure of time over the past several months has clearly demonstrated the need for a coordinator of the New Careers program. In the event that the University seeks to broaden its base of participation, it seems mandatory that a designated office and staff (probably, in the Personnel Office) administer and evaluate the effectiveness of these programs in terms of the University's objectives.

⁶The Minority Personnel Representative serves as the contact point, but his work schedule does not allow for a deep interest in specific programs.

In summary, four factors appear to affect the likelihood of participation in anti-poverty programs. The willingness of certain management and staff personnel to assume a new function -- training -- is absolutely essential in establishing a program of this nature; if key people in the operating units are reluctant to participate, it is unlikely that a training program, even if created, will be very successful. There are always people who search for opportunities such as initiating manpower training programs; however, a wide and thorough distribution of information concerning the availability of vocational training opportunities, coupled with administrative encouragement and support on the part of University officials, will help to secure broader support in the operating units. The instigation of manpower training programs may be correlated with the type of work a particular unit performs. The scientific/technical units -- because the objective task is specific, the steps to complete the task clear, and the results easily measurable -- may find it easier to establish training programs for entry-level personnel. There are, however, numerous entry-level positions in teaching departments, and a job analysis could reveal career ladders based upon mastery of tasks of an ascending order of difficulty.⁷ Perhaps the desire to participate is more critical in non-technical units. The funding process may also have some positive bearing on participation. A unit supported mainly by state funds need only request a budgetary allocation for a training position; those units receiving federal contracts are more or less in the same position. Federal grants probably allow for the greatest flexibility in expenditure, even though grants are not permanent additions to the budget.

⁷Examples of entry-level positions would include Account Clerk, Clerk, Stenographer, and Typist Clerk.

In any case, the establishment of a training program really hinges on the desire of unit personnel to participate. If they do wish to become involved in such activities, the types of funding and work performed are of secondary importance.

THE OPERATION OF NEW CAREERS

The presentation of the New Careers program on campus elicited little sustained enthusiasm. Part of the reasons for this can be attributed to the failure of NCDA/O to get information directly into the hands of the operating units and for its failure to follow up the initial presentation. Yet subsequent efforts on the part of the Minority Personnel Representative to place members of disadvantaged groups were also unsuccessful. The two other factors — funding procedures and work activities — are relevant only as they aid or inhibit a unit from establishing a project.

The failure to secure general campus support for New Careers led to the use of personal contacts for the placement of some trainees. The Space Sciences Laboratory agreed to accept four Careerists. What has happened during the initial six months of involvement with the program? What lessons have been learned? Can these lessons be generalized for the purpose of effecting a larger University involvement in anti-poverty programs?

In terms of program definition there should be formal connections between the Careerists and the University, NCDA/O, the local community college that the Careerists attend, and the outside job market. NCDA/O should co-ordinate the activities of the University with the community college as well as render supportive services such as testing and counseling to the Careerist. For all practical purposes, the only contact is that between the Careerist and his training supervisor. The experience to date indicates that it is the training supervisor who has been initiating all communications. The New Careers program is almost unknown within the University structure, the role of NCDA/O is virtually unknown to the Careerist, the official link with the community college

exists in name only, and there is no connection whatsoever between the Careerist and the job market at this time. Because there is little formal communication between the principal institutions or between the Careerist and any of these institutions, the training supervisor finds himself dealing with administration as well as training.

Of the four Careerists at Space Sciences Laboratory, three men are training to be electronics technicians, and one woman is training to be a technical editor. All four are black. Their ages are 26, 27, 40, and 42. Two are married (no children), one is single, and one is divorced (three children). Their cumulative job experiences are highly varied. In terms of educational achievement, one Careerist has a high school diploma, two have attended four years of high school (no diplomas) and part of a college year, and one has completed the eighth grade. By requirement, all reside in Oakland's poverty target areas.

How were these particular Careerists selected? In November 1967, a preliminary screening process took place for interested persons referred by various employment centers. A smaller group was interviewed by the supervisor, who made the final choice among the applicants. The criteria for selection were somewhat arbitrary; the supervisors selected those persons with whom they felt the best rapport. The supervisors felt that all of the candidates interviewed would have been acceptable; this not only testifies to the caliber of the applicants but also to the initial assumption made by the supervisors that hard-core unemployed have the capacity to be trained for permanent and responsible careers.

The candidates had little knowledge of the New Careers concept or function; they perceived New Careers as an opportunity for a working career, as a means rather than an end. The supervisors, also, had little knowledge of New Careers. Their interest was both humanitarian and practical, and New Careers simply served as the medium through which this purpose could be served.

What were the expectations of the Careerists and the supervisors? It is probably fair to say that NCDA/O is still in the process of defining the objectives and the time span in which they are to be realized. The Careerists, themselves, had no expectations beyond those of seizing an opportunity and making it work for them. Knowing that it would not be easy, the Careerists still had few doubts about their ability to succeed. If New Careers is a bonafide opportunity to be trained in a skill as well as to receive an education, the rest will be up to them.

The expectations of the supervisors were also limited. They fully grasped the idea that, while these individuals are to be treated as any other employee of the University, it nevertheless would take them a little longer to adjust to the University atmosphere. Due to the limited backgrounds of the Careerists, the supervisors did not expect on-the-job performance to be equivalent to that of any other employee. However, when background deficiencies had been remedied, the supervisor did expect that work performance would be up to standard. The supervisors, recognizing that the Careerists are a special group of people in need of personal attention to become adjusted to the environment at Space Sciences Laboratory, were determined that no Careerist would "fail" because of problems encountered at the Laboratory.

What are the differences, if any, between the expected and the actual outcomes? The educational performance of the Careerists has been encouraging, particularly in consideration of their limited educational experience. It is interesting that the Careerist with the least amount of formal education has done the best work; the others have done at least average work. It is also noteworthy that although 25% of the Careerist's time is to be spent in school, the Careerists carry class loads about two-thirds that of a full-time student. In fact, two of the Careerists at Space Sciences Laboratory are taking the maximum number of allowable units this summer. Their educational performance during the first six months of the program has been very satisfactory and should remove many of the doubts about a Careerist's capability to do college-level work.

Their on-the-job performance has been officially "satisfactory" -- the highest rating attainable on University performance evaluations for the initial employment period. There is, however, ambiguity about these evaluations; the supervisors want the Careerists to succeed and may have adjusted their evaluations accordingly. The supervisors recognize this potential bias, of course, but they still express satisfaction with the rate of progress made by the Careerists.

There are other factors, external to both job and education, that indicate high motivation on the part of the Careerists. One factor is the level of take-home pay, which is approximately \$300 per month depending upon the number and type of deductions. Another factor is the amount of time the Careerist spends commuting between home, school, and work. The shortest travel time possible by bus is

three hours per day. The Careerist gets up early in order to arrive at school for his 8:00 a.m. class; he eats his lunch on the bus in order to reach the University by 1:00 p.m.; he rides the bus home after work, only to resume study after dinner. While inconveniences of this sort are burdensome, the Careerists seem far more concerned with the integration of their various academic classes and the relationship between education and job training.

From the short period of involvement with the New Careers program, there are several inferences that can be made. First, the University is quite capable of operating a training program *if* departmental interest can be secured. At the present time the necessary commitment to and active support for such a program exists only at a central level (the Chancellor's Office and the campus Personnel Office). The critical ingredient for departmental participation is the *desire* of unit administrators to become involved. The larger the unit (budget, personnel), the easier it is to participate. The more specific the task, the easier it becomes to train someone to perform that task. On the other hand, in the absence of a commitment on the part of unit management to participate, the size and function of particular units are of little importance.

Second, no serious problems are likely to be encountered from the New Careerist. The first-line supervisor interviews and selects the particular trainee, which is important for two reasons: (1) the supervisor has an intimate knowledge of the work to be performed and the qualities necessary to perform it, and (2) the supervisor must be certain that he is able to communicate effectively with the Careerist.

It is important that the initial tasks be programmed to insure success, for without self-confidence, the Careerist will be less likely to perform well.⁸

Third, the New Careers Development Agency in Oakland has not been a critical problem in the development of the program; on the other hand, it has not been of much assistance either. The present involvement is largely maintained by supervisory good-will, since most decisions inevitably come to rest upon his shoulders. Because NCDA/O really serves as an administrative channel for the dispersal of federal monies, this has special importance in terms of a broader University involvement with training programs for the disadvantaged, for the critical question is who will fund the program.

Ideally, the particular unit ought to do so, but it may be that its budget will not allow that sort of expenditure. The federal government is in a better position to appropriate the needed funds. Should the University envision a large-scale training effort, it could apply directly to the Office of Economic Opportunity for the necessary capital, including administrative overhead. Or, for instance, if a federal agency awards a \$10,000 grant or contract to the University, it could add \$2,000 for a training position; if the state were also to add \$2,000, then the annual salary for a trainee would be adequately funded. The state would have to agree, of course, to a budgetary

⁸The idea of programming for initial success is not reserved for the disadvantaged. For example, the Lawrence Radiation Laboratory has had great success with in-house education for mid-career professional personnel; however, the first forty meetings of the class are devoted to a *review* of mathematics that the professionals had learned in college. The purpose of the review is to help bolster the confidence of the professional, who is often dubious about his ability to perform well in classroom situations after having been working for a long period of time. [See Tilles, A. "Mid-Career Education: In-House," Lawrence Radiation Laboratory (Livermore, California), April 1967.]

provision for the administrative costs of training programs. The removal of the funding process from the University to the state and federal governments would be a clear indication of their commitment; the establishment of a campus administrative unit, whose purpose is to oversee training programs, would exhibit the commitment of the University at a central level. The departmental units would then be asked to initiate some type of training program leading to a meaningful career.

CONCLUSIONS

The Space Sciences Laboratory has exhibited unique leadership in conducting training programs. In addition to its involvement with New Careers, Space Sciences Laboratory has initiated a training program for the disadvantaged in which clerical and business office skills are taught. Furthermore, the Laboratory has been the principal force behind the development of the campus Management Intern program. It is evident that there are several possible options available to any campus unit — *provided* that it has the will to become actively involved in manpower training programs.

Participation in the New Careers program has brought both extra costs and unintended benefits to Space Sciences Laboratory. Those people who agree to train others do so voluntarily; training is not one of the functions written into SSL job descriptions, nor are extra personnel requested to make up for the time spent in training. Yet despite the costs inherent in any teaching situation — especially one in which teaching is not the primary assignment — all of the supervisors agree that the benefits make this training worthwhile.

The costs of training are expressed in many ways: frustration; the necessity for close and constant supervision; the need to devise new standards of efficiency; the dissension in the work group caused by special consideration of the trainee; the repetitive explanations of rules; and the need for increased patience and understanding. There is also a high cost in terms of administration, which is borne by personnel not directly involved in the training. Obviously these costs

vary with the number of personnel available to participate in training and the number of people to be trained. Of course, costs must also include an evaluation of the level of participation and the quality and quantity of output; while the average cost may decline as the ratio of supervisors to trainees increases, there is a maximum absorptive capacity beyond which work performance is adversely affected.

The unexpected benefits are less subject to quantitative measurement, but they are real nonetheless. Not only are the disadvantaged socialized to the norms and values of the advantaged, but the organization itself changes as it responds to the trainees. One might expect an increase in bureaucratization resulting from the entry of the under-privileged to a bastion of the privileged — the pressure of work forces strict enforcement of rules, which apply equally to all and which derive their authority from the *position* of an office rather than from a *person* holding an office. Yet there is some evidence indicating that the change taking place is in the direction of *less* rather than more bureaucracy.⁹

By agreeing to accept a training function, the organization absorbs a greater number of people, most of whom are from disadvantaged backgrounds, and assumes a new responsibility. It is expected, when a white, middle-class American is hired, that he brings to the organizational environment certain knowledge about what is expected of him even though he may have had no previous experience with that organization. If, however, the trainee has no knowledge of what is expected of him,

⁹Eisenstadt, S. N., *Essays on Comparative Institutions*, (New York: John Wiley & Sons, Inc.), 1965, pp. 251-71. An article dealing with the response of Israeli organizations to an influx of immigrants.

the supervisor must teach him this as well as the other job skills he has agreed to impart. In other words, in order for the supervisor to perform his function, he relies on the trainee to act appropriately -- otherwise, the supervisor must teach him expected behavior. Because the power of the trainee may be simply the ability to disrupt, the supervisor becomes dependent on him to fulfill certain role expectations. The greater the dependence on voluntary co-operation for task performance, the less bureaucratic (impersonal, rule-oriented, etc.) the environment.

The resulting change is one of increasing personalization and informality. It attunes organization personnel to extra-organizational social conditions. It also serves to train the supervisors. In brief, the change desired is, at minimum, a better understanding of the world in which we live. There are, however, certain problems attending particularistic treatment. If certain privileges are granted to trainees that are not also given to regular employees, the organization faces the possibility of internal dissension. Any decision involves an analysis of benefits versus costs, and it is inevitably the decision of unit management as to how much cost is "reasonable" and how much "extra work" is appropriate in special situations.

The plight of the disadvantaged in our society constitutes such a special situation, and it is worthwhile looking at this struggle as it affects society in general and the University in particular. First, the absolute number of disadvantaged citizens is increasing while the demand for people to fill low- or entry-level positions is decreasing. Automation has doubtless proven to be economically efficient for the firm, but the human costs are enormous, not only for those whose jobs

have been eliminated but for those who are without work as well.

In both an absolute and a relative sense, the qualifications needed to maintain steady employment have risen. Thus, jobs for the poor are becoming increasingly difficult to find as the growing supply of people already exceeds the demand for their services.

It is a sound economic principle that one seeks to obtain the greatest amount of that which is valued for the least cost. When this is translated into human terms, the condition of the disadvantaged is apt to grow more desperate. How does this situation relate to University employment? The Berkeley campus Personnel Office, in describing entry-level clerical positions and promotional opportunities, notes that "the University of California offers a variety of employment opportunities for high school graduates who have little or no experience . . . Openings can occur anywhere on the Berkeley campus . . . Employees who start in entry level clerical positions can advance to higher levels as soon as they have acquired sufficient University experience and have demonstrated their capacity to perform assignments of greater difficulty and responsibility."

Taken at face value, the foregoing lines indicate that there are many employment opportunities for persons without a college education. Yet what is perhaps more important than level of education is sophistication of middle-class language skills. Since educational certification is quite often separate and distinct from language sophistication, this not-unreasonable requirement nonetheless represents an additional barrier to the disadvantaged citizen. Even if one assumes that education and language skills are not barriers to entry, estimates of the actual number of available job openings are a definite obstacle.

The largest number of entry-level positions without the requirement of middle-class language skills lies in the progression from Laboratory Helper (\$359/month) to Laboratory Assistant III (\$614/month). There are, at present, 609 such positions on the Berkeley campus; however, only 169 of these are full-time employment, while 440 are part-time student assistance. People at the lower end of the skill continuum have less job mobility than those at the upper end; consequently, the few people that have these lower skill jobs are not likely to move on to other organizations. This extremely low rate of turnover means the job openings are rarely available to the public-at-large; yet the demand for these openings is at least 100 times as great as the number of positions coming available. Considering that the University employs a non-academic staff, including students, of 6,000, the employment possibilities for the disadvantaged are indeed dismal.

In a milieu in which one seeks the greatest value for the least expenditure, the poor will not find many available openings. Therefore, if the University is to do something in the way of employment opportunities for the disadvantaged, it must change its internal environment. What steps can the University take to ameliorate the conditions of the poor? What sorts of changes must precede an expanded employment program? At high levels within the University there are some indications of serious commitment. Recent actions on the part of President Charles E. Hitch and Chancellor Roger W. Heyns to provide realistic opportunities for minority group citizens have demonstrated that commitment. The Personnel Office currently monitors recruiting action relative to minority group citizens, and there are now more minority group applicants referred for entry-level openings on the Berkeley campus than white applicants for a comparable skill level.

The issue now concerns the extension of that commitment from the administrative level to the departmental level. A public statement on the part of University officials, which specifically declares that the University has a need for entry-level personnel and that it will, in so far as possible, give preference to minority group applicants, would go a long way toward facilitating that departmental involvement. Such a public statement would acknowledge the special circumstances surrounding the decision and would establish a base for altering some of the employment criteria. It would call upon the various campus units with budget backing from campus administration to commit a certain percentage of their work force to those who are neither fully qualified nor highly trained, and it would encourage the individual unit to supervise the training process. It would recognize the need for an analysis of a unit's work activities so that tasks could be separated on the basis of skill-level requirements and reasonable career lines could be formulated. Finally, such a statement would recognize that while the University is engaged in extending the frontiers of knowledge, it also has a responsibility to those who, for a variety of reasons, have been unable to participate meaningfully in the society's activities; that is the University's commitments would be moral as well as intellectual.

In essence, the issue is more fundamental than employment opportunities, for it suggests that a public organization may establish goals that change the definition of efficiency from one that is primarily economic to one that includes social utility. The question has been raised, and the University must respond. On this campus there are personnel who know of the possibilities and probabilities of federal financing and who would be able to render technical assistance at

several levels. It is important to underscore the need for departmental support by the campus and/or University administration — be it financial, technical, administrative, or supervisory — for this is an effort that demands the active co-operation of all. Those who state that the problems of poverty are easily solved ignore the possibility of goal incongruity. The University, as do other organizations, continually searches for an optimum combination, and that optimum shifts as the environment changes. To paraphrase an earlier quotation from Audrey Cohen — if we *see* the problem, and if we have the determination to *act* upon it, we do have the vision to *solve* it.