Profiles are drawn of the 13,477 participants (75 percent nonwhite) in the Career Opportunities Program (COP) in 1972 in terms of their jobs, education, training, and performance as students. The report touches on how the 132 demonstration programs have affected local education agencies in the areas of differentiated staffing and new career opportunities for professional staffs. A section describes ways in which criticisms of COP are met. The impact of COP on 272 institutions of higher education is also summarized and an assessment made, in testimonial form, of the effect of COP graduates on school children. A summary briefly lists qualitative results of the demonstration programs to date. (MDW)
CAREER OPPORTUNITIES PROGRAM

A Progress Report on a Mid-Range Demonstration

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A service provided under a developmental assistance grant from the US Office of Education in support of the Career Opportunities Program to the New Careers Training Laboratory, Queens College, 184 Fifth Avenue, New York City, N.Y. 10010. 212-924-4777.
The Career Opportunities Program (COP) is in a sense a demonstration at the mid-range. As a demonstration, it brings together a series of program ideas found successful in earlier, more limited efforts, and seeks to demonstrate the potential in their combination and expansion. COP's efforts over the past four years offer an object lesson for the carrying out of innovational activities in education in particular, and in various human service fields in general.

The COP program has a set of discrete but interrelated goals, including those of an immediate nature as well as goals of long range institutional change.

1. Bringing to schools personnel different from those presently employed as teachers.
2. Providing training, education, and career advancement for such people.
3. Affecting the organization and structure, as well as staffing patterns of the local education agencies (LEAs).
4. Affecting the population served by institutions of higher education (IHEs), as well as the ways in which these new people are served.
5. Affecting the learning of children from low-income families.

The COP Participants

There have been 13,477 COP participants¹ as of September 30, 1972. Of these participants 87 percent are members of low-income families; 77 percent are female; 13 percent are Vietnam-era veterans; 53 percent are Black; and, 16 percent are Spanish speaking.²

Thus, while nationally some 90 percent of teachers are white, over 75 percent of the COP participants are nonwhite. Let me illustrate what this means in some individual school districts.

--Where only five of the 210 certified teachers on the Crow and Northern Cheyenne Reservation are Native American, the Hardin (Colo.) COP project is training 54 Native Americans, all of whom are from low-income families, to become teachers.

--In Alaska, prior to COP, there were a total of six native (Eskimo or Indian) certified teachers. By 1974, as a result of COP and Teacher Corps (which are operated jointly), that total is expected to be 35.

At present, in the schools where the program operates, 95 percent of the children are native, 99 percent of the teachers are non-native, and 90 percent of the COP-TC participants are native.

¹All of the aggregate numerical data is derived from data collected by Public Systems, Inc., through a grant to the Graduate School of Education, Rutgers University. The data on participants is current as of September 1, 1972, and is for 131 of the 133 projects. (Not included are Belcourt, N. D., and Midland, Texas.

²Of the 13,477 total participants, 9358 (69 percent) are present participants. (N.B. "Present" refers to September 1, 1972). The breakdown for current participants is essentially the same as for total participants by low-income and ethnic group. The percentage of males among current participants is 12 percent.
In the San Juan County (Utah) COP project, more than 50 percent of the graduates and prospective graduates are Native Americans in a district where 42 percent of the children are Native American, but only four percent of the professional personnel are Native American.

The majority of COP participants are not new to the school systems where they work. Some 55 percent were already employed in school programs—Title I, ESEA, Head Start, Follow Through, other LEA programs—at the time they entered COP. Another seven percent were employed as paraprofessionals in other human service agencies, and 13 percent were Vietnam-era veterans, whose recruitment is a COP priority.

In the Memphis (Tenn.) COP project, the participants who were veterans were the first elementary-level physical education teachers. Originally there were seven; there are now 35, and 25 additional teachers are expected to join them.

A special feature of the Winston-Salem (N.C.) COP project is the use of males, particularly veterans, in kindergarten and other early childhood programs.

The New Orleans (La.) COP project is unique in that all of its participants are veterans working in grades K-3.

Jobs, Education, and Training

This is a time in which, at least in the aggregate, there appears to be a teacher surplus. However, there is no surplus of capable teachers who are willing and able to work in schools with low-income and/or minority-group children, nor is there a surplus of teachers in such areas as special education or occupational education.

As of September 1, 1972, 536 COP participants had graduated. Of those employed, 87 percent are low-income.

Not only are COP participants being employed, they are serving the children who need their services most.

Twenty-four of the 27 graduates of the Ashville (N.C.) COP project are now teaching at LEAs in the region. Previously, young Blacks graduating as teachers had left the region, but the COP graduates are older, have firmer local ties, and are more likely to stay. Local demand for the COP participants is so great that seven trainees who have not yet graduated are presently employed as teachers.

All 14 graduates of the Kansas City (Mo.) COP project have been hired by the LEA. In hiring, the LEA gives priority to COP graduates, even in out-of-state recruitment.

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3 These participants graduated after only two years in the program because they had entered with some college credit.

4 The data does not reveal the status of the remaining graduates, but we do know that a significant number are employed by other LEAs.
Every graduate and potential graduate (all low-income and most bilingual) of the Education Center XV (Texas) COP project has been requested as a teacher by one or more participating school principal at least a year before the participant has graduated.

Of nine graduates hired by the Baltimore (Md.) COP project, two have already received tenure.

All nine graduates of the Humboldt State College (Calif.) COP project, all of whom are Native Americans, have been hired as teachers.

Eleven of the 12 graduates of the Walker County (Ga.) COP project have been hired as teachers by the LEA, and "letters of intent to hire" have been filed by administrators for the 16 participants scheduled to graduate in June 1974.

All graduates of the Peoria (Ill.) COP project have been hired, and despite a local "surplus" of teachers, an LEA administrator reports that "COP graduates have had no difficulty in obtaining teaching positions in the Peoria Public Schools."

COP participants, by background and/or training, are prepared to meet the continuing shortage areas of schools. This includes bilingual and bi-cultural persons --be they Chicano, Puerto Rican, Native American, or Eskimo, as well as those in fields of shortage.

In the Little Rock (Ark.) COP project, participants' special training in early childhood education has made them eligible for a certificate in the area, which is required if the school system is to avail itself of the state reimbursement for kindergarten that was instituted this year.

The fluency in the Indian languages of the participants in the Hardin (Colo.) COP project has "legitimatized" the use of indigenous language in the schools.

The first bilingual training program in the Racine (Wisc.) schools was instituted by COP participants.

Forty-one of the COP participants at the Jacksonville (Fla.) COP project are working in special education and will receive a Special Education degree. For 15 years industrial arts has been a teacher shortage area for the LEA. Now 30 COP participants are working in this field.

The COP program provided the first certified specialist in industrial arts for the La Crosse (Wisc.) schools.

The Peoria (Ill.) system's effort to implement a districtwide career education effort has been vitally abetted by the wide-ranging previous work experience of COP participants.

There are 272 institutions of higher education (IHEs) involved with the 132 COP projects. Of these, 211 are four-year institutions and 61 are two-year.

5The aggregate data on program activities include all COP projects except Midland, Texas.
In sum, the COP graduates have 508,843 credits, 72 percent of which were earned while the graduates were enrolled in COP. Of these credits earned while in COP, 16 percent were for practicum and 16 percent were earned on released time from the job.

The performance of the participants as students suggests the need for a new set of criteria for predicting college success.

--Of the 51 Hardin (Mont.) COP project enrollees at Eastern Montant College, all of whom are Native Americans, 46, or 90 percent, have been successful. This compares with a 48 percent figure for on-campus Indian students on academic warning or probation.

--The mean grade point average of the Education Center XV (Texas) COP project students enrolled at Angelo State University was 2.66, with 40 percent of the students on the Dean's List during the spring semester. Over the total period of their enrollment, 58 percent of the grades earned were B or above.

--A participant in the Louisville (Ky.) COP project, who was refused entry into college when he left the Army, was enrolled in college as a COP participant, was on the Dean's List every semester, and has now graduated.

--Durham (N.C.) COP participants have maintained a mean grade point average of 2.68 compared with a college mean of 2.20 at North Carolina Central University; 55 percent of the participants had a 3.0 or better average and 98 percent had a 2.0 or better average. The dropout rate was below 10 percent, compared with an NCCU attrition rate of 30 to 40 percent.

--The largest COP project, New York City, has an 85 percent retention rate at the six colleges attended by the more than 600 participants.

--Seventy-two of the 142 Philadelphia (Pa.) COP project participants enrolled at Temple University were on the Dean's List in the spring semester and two have graduated magna cum laude.

--Participants in the Dallas (Texas) COP project have a mean 2.8 grade point average in the college program. One participant, scheduled to graduate in December 1973, is a woman with eight children who dropped out of high school over 25 years ago and since that time had worked as a domestic. She is expected to graduate with a perfect 4.0 average.

The program's graduates are not a "creamed" population from among the enrollee universe. For example, 85 percent of the graduates are low-income, 82 percent live in the low-income area served by the school, 48 percent are Black, and another 11 percent are from other non-white groups, and 15 percent are Vietnam-era veterans.
Affecting the LEA

Nearly 3,000 schools (2,936 to be exact) are involved in the 132 COP projects. There is close linkage with a broad range of other school programs: 93 percent of the COP projects are linked with the LEA’s Title I ESEA program, 54 percent with Head Start, and 51 percent with the Model Cities program. Broad citizen participation is carried on through COP councils whose aggregate membership at all projects is 2,913 persons, an average of 22 per council. Thirty-nine percent of council members are community members, 18 percent are LEA representatives, 11 percent are from the IHEs, 10 percent are from the teacher groups, 3 percent are from community action agencies, and 19 percent represent other community groups and participants.

The concepts of differentiated staffing and a career lattice are well on the way to being institutionalized: 75 percent of the LEAs have established a career lattice and the same percentage provide a schedule of salary increments for COP participants.

--At the start of the COP project in Jacksonville (Fla.), the district employed 140 teacher aides. There are now 654 aides, 50 percent of whom are supported by LEA funds. The example of the COP aides' performance was a significant factor in the increase. At the initiation of COP, only the COP aides were on a career lattice; now all 654 aides are.

--As a result of efforts regarding the COP participation, improved salary schedules, a career lattice, pension, sick leave, health, and other benefits have been provided for all paraprofessionals employed by the Trenton (N.J.) schools.

--The following aspects of the COP program model have been applied to all Duluth (Minn.) paraprofessional programs: job descriptions, civil service status, competency-based training.

--Reduction of teacher turnover from 30 to 15 percent in the Camden (N.J.) schools has been attributed to the COP project. The LEA has established a differentiated staffing design, based on the COP model at six schools.

COP has not only trained its participants but has afforded opportunities for the training and retraining of teachers and administrators.

--The recruitment of team leaders from among classroom teachers in the Hardin (Mont.) COP project has given them new training and a new role.

--The COP project in Camden (N.J.) has been the linchpin for the integration of a full range of school training programs including paraprofessionals, teachers, supervisors, and administrators -- a total of over 900 persons.

--The presence of COP participants in their classrooms has led Jacksonville (Fla.) cooperating teachers to learn new techniques and to update their skills.
--As a result of COP-sponsored training and workshops, a wide range of new teaching techniques have been adopted by Manchester (N. H.) teachers.
--The opportunities for co-training of teachers and paraprofessionals through COP has provided valuable in-service training for teachers in the Peoria (Ill.) schools, and has been a major step toward school system renewal.
--A Miami (Fla.) COP project workshop provided training in humanizing education for 100 teachers along with 25 COP participants.
--In Waterbury (Vt.), teachers and COP participants participated jointly in a two-week workshop this past summer on open education.

One criticism of teacher preparation has been the absence of an integrated role for the LEA. COP addresses this issue in a variety of ways. The basic design is that the COP project subcontracts (the LEA being the grant recipient) with the IHE(s) for those educational services required by the COP participants. The projects are, thus, in a buyer's position, able to get what they want. The COP Council is a forum where LEA, IHE, and community people come together to share experiences and to make program decisions.

--In Little Rock (Ark.) and Kansas City (Mo.), the COP projects have led the LEAs for the first time to recognize a responsibility for teacher training.
--In Crystal City (Texas), the COP project team leaders, themselves teachers, sit in on the participants' courses in order to better integrate work and study.
--Based upon the COP experience, the Rochester (N. Y.) school system has used local funds to "buy" a college faculty position for teacher training.
--In New Orleans (La.), the first COP graduate is already supervising a teachers-in-training program.
--In the San Juan County (Utah) COP project, LEA staff are used as field faculty by the IHE for on-site courses. The result is improvement of LEA staff professional competency.

Another criticism has focused on the lack of community involvement in school affairs in general, and personnel matters in particular. COP responds to this issue in a number of ways, particularly through the COP Council.

--The COP project of Little Rock (Ark.) was aided in the selection of personnel for enrollment in COP by an Advisory Council which, in essence, allowed the community a way to say: "These are the people we want to teach our children."
--The role of team leaders in the Hardin (Mont.) COP project in both LEA and community action agency (CCA) programs has increased cooperation between school and antipoverty programs.
The inclusion of community people in a "needs assessment" in the design and ongoing revision of the Camden (N.J.) COP program has brought closer school-community collaboration. So, too, has the training of lay community people, a bilingual news report system, the community council, as well as, of course, the recruitment of COP participants from the community.

In addition to program activities, the Alaska COP projects provide services to children and the community, which includes a preschool in Nondalton, a photography course in Togiak, a sports program in Tanana, a library in Nulato, translators in Bethel, ABE classes in Noorvik and Angoon, health services in Fort Yukon, a Youth Tutoring Youth (YTY) program in Metlakatla.

The Advisory Council of the Springfield (Mass.) COP project includes CEP program, the police department, IHE, community organization, school faculty representatives, as well as participant membership.

Through arrangements worked out between the LEA and IHE, para-professionals employed by the LEA can earn college credits prior to entrance into the San Juan County (Utah) COP program. Such credits are fully applicable toward a degree.

The Port Isabel (Texas) COP project was able to convince the IHE to come to the local community to deliver its program to the COP participants. Large numbers of community people have also come to attend the college classes, thus producing a community impact far beyond the COP program.

Affecting the IHE

As we have noted, 272 IHEs are involved with COP projects. Although in many cases the participants do not meet "normal" admissions requirements, 93 percent of the IHEs admit participants as regular students. We have already noted the high degree of success achieved by the COP participants as students. Here we are concerned with the effect upon the IHE.

Although a score of 21 on the ACT is considered a minimum predictor of satisfactory work at Tennessee Technological University, the participants from the Overton COP project had an average ACT score of 14. Nonetheless, the COP participants as a group have made better grades than the student body as a whole in every semester but one since the program began. (The difference that semester was 0.094.) As a result, TTU has instituted a new open admission plan.

The implementation of a competency-based teacher education program for participants of the Hardin (Mont.) COP project has encouraged Eastern Montana College to put into effect such a program for all of its education majors. Also, the college has granted foreign language credit to the COP participants for fluency in the Crow and Northern Cheyenne languages, and now offers these languages in its foreign language curriculum--both are firsts for the college.
--Mars Hill College has instituted a full-year internship in the public schools for all teacher trainees as a result of the successful experience of the Ashville (N.C.) COP participants.

--Pikesville College, which historically has trained 85 percent of the LEAs' teachers, has included a greater field experience, as well as competency-based teacher education (CBTE) design for all its students as a result of its experience with the Pike County (Ky.) COP project.

--The College of Racine reports that as a result of its involvement with the Racine (Wisc.) COP project, it has instituted earlier field-based experience, restructured courses in a CBTE design, established closer relationships with the LEA, made a greater commitment to training teachers to service minority-group children, and its faculty has become increasingly involved in reassessing present approaches and developing new ones.

--The success of La Crosse (Wisc.) COP participants at area colleges has led to the revision of selection criteria for admissions.

--As a result of the Indian Teacher Training Project (the COP program at Humboldt State College, Calif.), nine Native Americans have graduated as compared with 10 Native American graduates over the past 50 years. In addition, a Native American Studies Program has been established and the college has hired seven Native Americans in faculty and administrative positions, whereas in 1970 there were none.

--A cross-cultural teacher education program has been instituted in Alaska colleges as a result of the Alaska COP-TC program.

--Waiving of SAT cut-off scores for admissions, new courses, credit for classroom work, reorganization of course sequences, and college faculty coming to LEA classrooms, are some of the changes in area IHEs as a result of the Winston-Salem (N.C.) COP project.

--Following their success with San Juan County (Utah) COP participants at the undergraduate level, Brigham Young University has begun an M.Ed. program in Educational Administration for COP graduates.

--As a result of their involvement with the Trenton (N.J.) COP project, Mercer County Community College and Trenton State College have established procedures regarding course credit transfers and sequencing of courses; new curricula have been set up at MCCC; COP participants and community representatives have been included in curriculum revision committees at both colleges; and a new practicum design has been developed at TSC.

--Participation of Peoria (Ill.) COP participants in classes with "regular" students at Illinois State University contributes, according to ISU faculty, to making those classes more "real" for the students.

--At the University of Arkansas, all education majors now spend a portion of their time in the Foundations course working in the public schools, following the model introduced to the university by the Fayetteville COP project.
In describing the effect of the Atlanta (Ga.) COP project upon Clark College, the chairperson of its Education Department noted the building of a cadre from among present college faculty of persons familiar with CBTE, modularized instruction, IHE-LEA relationships, and training students to work with children from diverse backgrounds.

**Effect upon Children**

COP was established under the Education Professions Development Act, whose prime concern is the preparation of human power for school staffs and affecting changes in staff utilization and preparation. Nonetheless, the ultimate payoff of all that is done in education must be in terms of the effect upon children. Thus, COP has seen as one of its central goals affecting the learning of the children in the schools where the participants work.  

Test data suggest that the second year of utilization of COP aides in the Little Rock (Ark.) schools had an accelerating effect upon children's learning. The data indicate positive correlation between improved achievement and the presence of COP participants in schools. A decrease in behavioral problems has also been reported by teachers and principals.

Native American children in bilingual programs where COP aides were used, talked more in class than a control group of Native American children not in a bilingual setting. As compared with the control group, these children showed both in English and the native language significantly less absence from school, and significant increase in overall ability.

Fewer discipline problems, more individualized learning, greater opportunities for teachers to use their highest skills, closer community involvement in the schools, were reported by a principal as the effect of COP participants in the Camden (N.J.) schools.

One hundred percent of the principals in schools where Pike County (Ky.) COP participants worked report that the academic performance of the children had improved as a result of COP.

There has been greater achievement and improved self-image on the part of pupils in COP schools in Rochester (N.Y.) than in comparable schools without COP participants.

Scores on the WISC are higher where COP participants are used than in comparable schools in Helena (Mont.).

Because COP graduates to date are few, and these are very recent, only impressionistic evidence is available as to their performance as teachers and their effect on children's learning.
Comparing performance on the Metropolitan Achievement Test of similar classes of first grade children with and without COP aides in Durham (N.C.), those with COP aides did significantly better on word knowledge, word discrimination, and reading and slightly but not significantly better in arithmetic; on all three of these subscales, those classes with COP aides scored above grade level, while the others scored below it. On tests for second grade children, classes with COP aides did better on four of five subscales on the MAT, while at the third grade level classes with COP aides did better on six of eight subscales.

All the IHE students (half of whom were COP participants and half full-time college students) doing their student teaching at the San Juan County (Utah) schools were evaluated by their cooperating teachers using a 30-item survey. On all items for which there was a statistically significant difference in the means between the groups, the COP participants ranked higher.

Principals reported improvements in discipline and learning conditions in classes where Peoria (Ill.) COP participants worked, and the parents of children in those classes reported that their children liked school more, had less difficulty, and were more eager to attend school, according to an outside evaluation.

In all grades but one, children's scores on the MAT in Atlanta (Ga.) Title I schools using COP participants were better than those Title I schools without COP participants. Only in the schools using COP participants did children progress at an annual rate of one grade per year.

In Miami (Fla.), an experimental project for young children with cognitive deficits which used COP participants as the major intervention strategy in a program of sequential stimulation and development resulted in a reduction of deficits twice as great as among a control group.

In his opening day address to school personnel in Gary (Ind.), Superintendent of Schools Gordon McAndrew reported a dramatic shift in the reading scores of children in Title I ESEA schools. While in 1969, 65 percent of the children in these schools were reading below grade level, 73 percent of these children were reading at or above grade level this past year. McAndrew gave credit to COP, along with other programs, for this dramatic shift.

Of course, each of these assessments is subject, to some degree, to methodological criticisms. But we believe that more than any one piece of datum what is impressive here is the cumulative factor. In particular, we see positive reports over a wide range of indices -- cognitive gains of various sorts, reduction in discipline problems, improved attitudes toward school, improved self-image, and positive reporting -- from a variety of sources including test data, principals, supervisors, parents, and administrators.
Reports from Several Sources

In keeping with the presentation of data from various resources, let us look at the following reports:

From a Minneapolis principal in whose school COP participants worked before and after graduation:

I have had professional contact with COP trainees since the program began. As a classroom teacher, I had the privilege of working with aides who were in the beginning phase of their training. I know about the dedication of these women and men and the long hours required of them. It is very satisfying to see them now assuming professional roles as classroom teachers and school social workers. As a school principal, I now also appreciate the contributions they are making to the school program. Their work experience, as a continuous and integral part of their college training, has given real meaning to the more theoretical aspects of their education, and has served to make them more competent teachers. At the present time, there are two COP graduates on my staff. They stand tall in the ranks of the profession, and I feel privileged to be associated with them.

From a Miami assistant superintendent:

COP graduates appear to be more successful as beginning teachers than teachers who are strictly college and university trained.

Survey of Little Rock teachers:

The project has made it possible for teachers to have more time for individualized help with children; it has expanded their roles to include supervisory responsibilities. According to 67 classroom teachers surveyed in Little Rock public schools, COP assistance has had these positive effects:

-- Gives participant a basis for selecting teaching as a profession.
-- Assistance given to teachers and children.
-- Personal initiative of participants, their willingness to tackle jobs, patience with children, individual attention for students, and relieving teachers from many nonteaching jobs.
--Assistance given in all aspects of school programs.
--Participants like children.
--Participants are cooperative.
--Training of talented people who otherwise would not be trained.
--Results in better use of time in classroom.
--Gives those participants who have the qualities to become good teachers an opportunity far superior to the student-teaching pattern.
--Participants are able to relate theory to actual situation.
--Makes teaching much more rewarding.
--Helps individualize instruction.
--Provides extra hands, eyes, and ears to help children.
--Helps teachers provide a greater variety of activities, which makes learning fun.
--Gives teachers more planning time.
--Participants bring new experiences and ideas to the classroom.
--Helps teachers relate better to the neighborhood.
--Provides the children with a person with whom they can identify.

**Apt Associates Evaluation Study:**

"The findings [of the 1972 ABT Study of 16 projects] show that the program is successful when measured by the following impacts:

COP aides show strong motivation to continue in the program and become teachers. They have a positive professional view of themselves. They are representative of the population originally targeted for this program. As such, the program has provided a vehicle for upward mobility for the aides.

Satisfaction with the program is high among principals, superintendents, teachers, and COP aides.

Principals wanted more COP aides in their classrooms and felt that a major impact the aides had was to increase the amount of individual instruction scheduled for children. They perceived COP aides as more professional -- more serious than other teacher aides."
Superintendents saw the COP aides as increasing linkages between the school system and the community groups. (The COP aide frequently acts as an "interpreter" of neighborhood needs to the administration.) They wanted to have more aides for both regular classes and for special students.

Institutes of higher education reported changes in their course content, schedules, college requirements, not only as an initial accommodation to COP in the first place, but also as a result of their COP experiences. These changes, present, planned, or being considered for all students, were in the direction of performance-based teacher education.

State Education Agencies showed a positive relationship between presence of COP and amount of change reported.

On the negative side is the lack of evidence for impact on student performance/attitudes. Furthermore, while teachers were enthusiastic, differences in their performances, while in the expected direction for each measure, were not significantly different from teachers who did not have COP aides.

On balance, the program can be judged as successful in its impact on both COP aides and the participating IHEs. The opportunity for upward mobility and the eye-opening experience which many academicians have had as a result of the COP presence argues well for the continuation of this program."

From an evaluation of the Durham (N. C.) COP project by the Director, Office of Research and Evaluation, North Carolina Central University:

Here is a program that has demonstrated unique, measurable contributions to the community, to the schools, and to individual trainees and pupils from poverty backgrounds. The program now represents a proven, established model as one of the best means of training teachers and improving education in poverty areas... It is a superior approach to both career preparation and higher education.
A Summing Up

The charge is being made on many sides that schools are irrelevant -- that the amount of money spent, the educational practice utilized, whether the schools are desegregated or not, a higher or lower pupil-teacher ratio, etc., have no affect on children's learning. Yet, there are numerous studies, experiments, and demonstrations which clearly indicate that a particular teaching practice or a changed teacher-student ratio or the use of new personnel such as paraprofessionals or a new curricula can have a decisive and measurable effect on children's learning. But these experiments have not been carried over into the educational system on a large scale.

The issue, of course, is how can these two sets of apparently contradictory data both be true. How can it be correct, as Coleman, Jencks, and others argue, that school factors, collectively and individually, have little affect upon children, while other studies show marked and significant results? The major factor, accounting for this difference relates to the very character of the two assessments. The Coleman, Jencks, and similar studies are surveys of large universes, using gross measures which are able to detect only broad effects across a wide spectrum of subjects. On the other hand, the studies which have shown positive correlations look at specific projects that are often limited in time and always circumscribed in target population; in short, they are experiments or demonstrations of small order that typically have not been institutionalized. The need, then, is to analyze some of the reasons why the experimental and demonstration results have not been carried over into institutional change.

In some cases, the results that are produced in a demonstration may be unique and not easily translatable on a national scale. This may be due to the fact that there was charismatic leadership in the demonstration program, that the expense of utilizing such a tremendous overload of personnel and other resources would not be economical on a large scale, or there may be some special conditions, such as the selection of "creamed" populations or exceptionally well trained and involved personnel.

There are, however, features of the demonstration that may have some interesting applicability on a large scale. For example, typically in a demonstration, traditional rules are modified or suspended or used very flexibly, there is considerable commitment, a great deal of concentration and care and keying on a particular result is emphasized, and there is sufficient funding. Later we will return to these characteristics as possible variables that must be considered in producing major visible educational reform.

Lest one believe, however, that there are only favorable aspects about new programs and demonstrations, it should be pointed out that many demonstrations fail and that many factors working against success in any new venture. For example, new programs charting unknown, unfamiliar paths encounter natural resistance to upsetting the tradition, equilibrium, stability, routine. Also, because the demonstration
or experiment is new, there is likely to be a considerable number of negative serendipitous or unanticipated consequences, which, unless they are overcome, will lead to the essential failure of the demonstration. The point is that in the institutionalization of an idea that has been demonstrated, there are often advantages that the demonstration itself did not have. The successful demonstration has presumably debugged some of the difficulties; the territory is no longer new and uncharted; a body of practice has been developed through the demonstration which can be applied on a larger scale; the success of the demonstration indicates that it can be done and reduces some of the resistance to the new; finally, the demonstration, because of its relative success, may have won some advocates, some support, some desire for the program's continuation on a larger scale, and some trained cadre.

The transition from the demonstration to large scale institutional change raises a number of managerial issues that are typically ignored and for which the demonstration itself offers no solutions. It is often assumed that the good idea or good practice will naturally spread, or sometimes it is mandated by a specific edict or legislation with little consideration of the special processes that will be necessary to institute an idea on a large scale. Surprisingly, there seems to be little awareness that in actual practice there is a powerful tendency for the original idea to be watered down, vulgarized, applied at the level of the lowest common denominator.

From a managerial perspective two features must be considered from the outset: (1) While the number and range of places where the demonstration idea is applied effectively has to be increased, it must be recognized that it will not be equally applied everywhere. Special methods must be introduced to compensate for the watering-down tendency -- and, if possible, to reverse this tendency. (2) A strong effort should be made to improve greatly upon the results of the demonstration as new experience is gathered and hopefully codified from a variety of new situations and particularly from model sites that are established. Recognizing the limits of the demonstration, it should be possible to improve greatly on the demonstration findings if conscious attention is directed toward this objective and the necessary practices instituted. The approach implied in point 2 obviously can provide powerful medicine for compensating and even reversing the watering-down tendency that is inherent in instituting large system change.

In COP we have been mindful of these problems. We have sought to develop a strategy for overcoming them. This has included a timetable for achieving our goals, careful and planned phasing of our efforts, the provision of various and considerable support and assistance, the development and maintenance of a strong program ethos in support of COP.

Of course, we have not solved all of the problems. We have, I believe, carried forward an interlocking set of ideas and program components that have produced significant and demonstrable results.

--Gains for the COP participants in terms of their education, employment, and careers.
--Changes in the character and training of those who are employed in the schools, and in the way schools utilize personnel, as well as providing new training for new roles for present school personnel.
--Changes in the character and activities of teacher-training institutions both in terms of their direct work with the COP participants and their larger efforts with other students.
--Gains for low-income students in their learning, behavior, attitudes, and aspirations.

Data used for this report includes responses to an "Opinionnaire" circulated among COP Directors, a statistical report by Public Systems, Inc., and various other sources.