New forms of postsecondary education such as television colleges, contract learning programs, universities without walls, external degree programs, and education brokers have emerged to complement traditional adult and vocational education programs. New patterns and programs contribute to the open learning movement in higher education and offer major alternatives to traditional undergraduate instruction for many young and older students. Some of the undertakings of the Ford Foundation in this field include the University of Mid-America; the University Without Walls; Empire State College in New York; the New York Regents External Degree Program; the Regional Learning Service pioneering in education brokerage; and research projects in costs, evaluation, and dissemination of information about open learning experiences. (CH)
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>5</td>
</tr>
<tr>
<td>A Television-Based Regional University</td>
<td>8</td>
</tr>
<tr>
<td>Contract Learning</td>
<td>13</td>
</tr>
<tr>
<td>Common Elements</td>
<td>14</td>
</tr>
<tr>
<td>University Without Walls</td>
<td>16</td>
</tr>
<tr>
<td>Empire State College</td>
<td>17</td>
</tr>
<tr>
<td>The Record to Date</td>
<td>19</td>
</tr>
<tr>
<td>Learners Without Teachers</td>
<td>20</td>
</tr>
<tr>
<td>Educational Brokering</td>
<td>23</td>
</tr>
<tr>
<td>Facing the Problems</td>
<td>25</td>
</tr>
<tr>
<td>Crediting Life Learning</td>
<td>26</td>
</tr>
<tr>
<td>Costs</td>
<td>27</td>
</tr>
<tr>
<td>Case Studies</td>
<td>28</td>
</tr>
<tr>
<td>Prospects</td>
<td>29</td>
</tr>
<tr>
<td>Appendix</td>
<td>30</td>
</tr>
</tbody>
</table>
NO NATION HAS GONE FURTHER than the United States in offering a college education to everyone who wants it. The land-grant college movement of the nineteenth century, the development of community colleges, the G.I. Bill after World War II, and the recent attempts to assure every high school graduate a chance to attend college—all testify to a national commitment to broaden the paths to higher learning.

But while a college education has been opened to more and more people, it has conformed, with rare exceptions, to the same basic pattern. Four years during one's late teens and early twenties are devoted to taking courses on a campus, studying for tests, writing papers—and enjoying a diverting social life with other young people. During this period one is supposed to learn largely by being taught, in a classroom, by instructors and professors. The process is completed when one has accumulated some 120 credits, at which time the award of a diploma signifies the completion of one's education and the "commencement" of life itself.

This pattern can no longer accommodate the changing conditions in American life and society. Alternative ideas about the nature and function of a college education are stirring in response to new imperatives:

—the pressure to open higher education to an even wider constituency—particularly from deprived groups and among those above the usual college age—who cannot or will not fit into the usual regiment of campus learning,

—the necessity for colleges and universities to attract new kinds of students in the wake of a declining population of eighteen to twenty-two-year-olds,

—the demand for more individualized, flexible, and diverse modes of learning to accommodate these new students,

—the need to integrate learning better with the challenges of living and working.

Over the past several years major policy statements about higher learning have consistently stressed the need for these new priorities. The highly influential Newman Reports in 1971 and 1973,* produced by a national task force set up with partial assistance from the Ford Foundation, concluded that "we must enlarge our concepts of who can be a student, and when, and what a college is. We need many alternate paths to an education." The Carnegie Commission, under the direction of Clark Kerr, which carried out the most comprehensive reconsideration of American higher education to emerge from the turmoil of the 1960s, likewise recommended that "postsecondary education take more forms . . . concerned comparatively less with the welfare of a minority of the young and more with that of a majority of all ages."†

Events have caught up with these predictions and recommendations. On the one hand, as Harold Hodgkinson, director of the National Institute of Education, notes, "We are simply running out of kids to teach." On the other hand, there has been a massive return of adults to education: middle-aged women seeking to break out of their homemaking roles.

roles and into the wider world of work and culture; mid-career executives trying to keep up with advances in their field or explore new careers; and a varied group, ranging from full-time working people to convicts and the handicapped, who missed out on college and want it now.

Faculties no longer disdain these new demands as they did in the days when evening school students were second-class academic citizens and the correspondence course was an object of derision. The budget crunch on most campuses has driven home the point that the long-term survival of many colleges and universities depends on a new clientele.

But to serve these new students properly—indeed, simply to attract them as paying customers—colleges have had to develop new ways of teaching. Millions of American adults want to continue their education, but most of them find traditional programs rigid, inconvenient, and expensive. Adults with full-time jobs and family responsibilities cannot usually come to the campus for regular classes. Nor are they (and many of today's regular students, for that matter) as tractable as an earlier generation of youngsters about fulfilling requirements they feel to be irrelevant to their goals and circumstances.

The result has been the emergence of new forms of post-secondary education—TV colleges, contract learning programs, universities without walls, external degree programs, educational brokers—the "open learning movement."

Of course there is a strong tradition of serving adult learners in American education, for both vocational and liberalizing purposes. For more than a century colleges and universities have run agricultural extension divisions; programs under such rubrics as adult education and continuing education have afforded men and women from a variety of backgrounds an opportunity for college-level courses (and, though less frequently, degrees), and even correspondence courses have provided a useful post-secondary training. The Ford Foundation itself, mainly through an independent organization it established in 1951, the Fund for Adult Education, sought to strengthen "that part of the total educational process which begins when schooling is finished." Through its ten-year history, the Fund made grants totaling some $40 million to help expand opportunities for adults to continue their education throughout life, primarily in the liberal aspects of education in economic and political affairs, world affairs, and the humanities. In addition to support for the development of educational television and fellowships for community education leaders, the Fund also assisted the continuing-education programs of a dozen universities and the work of several national organizations involved in promoting liberal adult education.*

Although many of these efforts were outside the mainstream of higher education, the lessons learned through them and some of the men and women who were active in leading them have contributed to the new open learning movement. The new movement is distinguished from most of the earlier programs in that it is designed to provide major alternatives to traditional undergraduate instruction for substantial numbers of young and older people through new

*Recipients of major long-term grants included the Center for the Study of Liberal Education for Adults, the Council of National Organizations (an affiliate of the Adult Education Association of the U.S.A.), the American Foundation for Continuing Education, and the National Institute for Labor Education.
educational patterns, including individually planned programs of study and recognition of prior learning in awarding credits towards the degree.

The development of open learning approaches has been assisted by the Ford Foundation, along with other private sources and federal and state governments.* This report describes some of the undertakings for which the Foundation has granted funds:

—The University of Mid-America, a four-state regional effort to bring higher learning to everyone who wants it, via television, other media, and academic support services.

—The University Without Walls, a national network of programs at twenty-nine colleges and universities, in which students are offered alternative ways to obtain their degrees through individually-planned programs based largely on off-campus learning and independent study reinforced with direct contact with faculty advisors.

—Empire State College, an innovative unit of the State University of New York, which also replaces classroom instruction with an individualized learning program and teachers with “mentors” who work with students personally.

—The Regents External Degree Program, which gives people who believe they have learned on their own what is taught in college courses the opportunity to take examinations and thereby earn a degree.

—A Regional Learning Service that is pioneering in the new field of “educational brokering” on behalf of adult learners, matching their needs with the right resources and nearby educational opportunities.

In addition to these new initiatives, the Foundation has supported several research projects designed to strengthen the open learning movement by probing its major problems:

—how to evaluate and reward what a candidate already knows or learns outside the classroom,

—how to compute the costs of nontraditional programs to ascertain their fiscal viability,

—how to spread the word about existing programs so that others may benefit from the experience.

Since 1970, the Foundation has made twenty-five grants totaling about $4 million in the field of open learning at the post-secondary level (see page 30).

Two major kinds of open learning systems have received assistance. The first, exemplified by the TV-based University of Mid-America, harnesses new technologies to disseminate high-quality instruction, in more flexible ways, to all kinds of learners who cannot or will not come to the campus. The aim is to involve such learners in large enough numbers to justify the costs of using expensive technologies to produce exemplary multi-media courses.

The second kind of open learning system focuses on the individual learner. It offers new opportunities for shaping each student's education around his or her basic interests, capacities, and goals. The emphasis here is on ways to learn other than through direct instruction. The key element is the intensive relationship between each student and a faculty advisor, who together design “learning contracts” leading to a degree.

*In particular Carnegie Corporation and the Foundation have joined in supporting the University Without Walls, the Cooperative Assessment of Experiential Learning (page 26), Empire State College, the Regional Learning Service, and the New York State External Degree Program.
The most direct way to broaden access to higher education is simply to make the best possible instruction available to the widest possible public. Great Britain has been developing this approach for the past five years. The "Open University" has brought superb courses, combining correspondence work, television, radio, and tutorials, to a broad range of students. It is designed to provide a second chance for adults who missed out on college. Some 15,000 people have been graduated, ranging from a member of Parliament to a London dock-worker who left school at the age of thirteen. Current enrollment is 60,000.

Educators in the United States have followed the televised aspects of the Open University—accounting for about 10 per cent of the instructional package—with mixed emotions, for TV-based higher learning does not have a happy history on this side of the Atlantic. Early hopes, dating back to the 1950s, that the power of television could be harnessed to deliver instruction, never came to fruition. The necessary capital investment in research, planning, and production was never forthcoming, despite glowing rhetoric about the possibilities. Even the most successful operations—such as Chicago's TV College, which is still going strong after twenty years—have never been given the funds to do much more than broadcast a "talking face" in front of a blackboard.

Yet the new British model shows that, given adequate funding, courses can be produced that equal and often surpass most classroom offerings. Moreover, Open University course materials attempt to integrate knowledge rather than to perpetuate the sharp and often arbitrary departmentalization that has become traditional.

The University of Mid-America—a cooperative effort of the six major state universities in Nebraska, Kansas, Iowa, and Missouri*—is the first attempt in this country to marshall the resources required to produce courses of high quality for widespread broadcast use.

In 1971, the University of Nebraska developed the first plans for a TV-based open university in the midwest. The original idea was to use the well-established Nebraska Educational Television Network to bring higher education to all the people of that state. As planning progressed, with support from the U.S. Office of Education, the project's developers and officials in Washington decided to enlarge their scope. By 1974, with financial backing from various private and public sources, notably the National Institute of Education, the project had become a regional effort: the University of Mid-America (UMA).

The blueprint for UMA derives from the best that has been done here and abroad in using technology to teach at the college level. The plan calls for freshly conceived courses to be developed by teams of academic experts, instructional designers skilled in marshalling media for effective teaching, educational researchers, and practitioners in the various technologies.

The goal is to offer students many ways to learn—in their own way, at their own pace, where and when they desire. In addition to watching broadcasts; students are able to listen to lectures on the radio, receive audio cassettes and instructional kits in the mail, study lessons printed in the newspapers,

*Kansas State University, Iowa State University, and the Universities of Kansas, Nebraska, Missouri, and Iowa.
talk to instructors over toll-free telephone lines, and visit learning centers where tutors, counselors, and learning materials are available.

There were political difficulties in setting up a consortium spanning several states. "Each state university has autonomy in its own state, of course," notes Nebraska's President D. B. Varner, the driving force behind UMA, "and each is accountable to its own legislature. So major decisions may require the approval of everyone from the governor to the boards of regents or trustees, down to individual campus chancellors, deans, and professors. Even with a great deal of trust and commitment among all the parties, it's an arduous task. Without such trust, it wouldn't work at all."

But the advantages of regionalization made the effort worthwhile. By serving four states, UMA broadens its base, both financially and educationally. The major expenses are for course development; once a course is produced, the more students who use it, the greater the return on the investment. Also, courses designed for a wider range of students will be marketable to institutions throughout the country.

UMA draws much of its strength from the six constituent universities. The presidents serve as its board of trustees, and five faculty members from each of the schools serve on a council that recommends priorities in the production of courses.

Students enroll in their own state institution, not in UMA, which has no faculty, and offers neither credits nor degrees. The division of labor between UMA and the states is a unique compromise between centralization and pluralism. UMA plans and produces the courses and monitors the whole process through an extensive system of research and evaluation. The states are responsible for "delivering" the courses to students, which includes providing faculty, counseling, testing, and accrediting of students' learning through their respective institutions.

Three of the state "delivery systems" are currently being completed, taking full advantage of existing facilities and communications networks in each state. Nebraska, with its project already in operation, is acting as a flagship for the four-state system. In addition to a nine-station educational television network covering 90 per cent of the Nebraska population, the project uses five learning centers.

The broadcasts began in the fall of 1974 with two courses, accounting and psychology. By the fall of 1975, eight were broadcast. By mid-1976, eleven were being offered in Nebraska, and several were being presented in the other UMA states. While developing future courses in Great Plains cultural history, international studies, world food problems, educators in the United States have followed the televised aspects of the Open University—accounting for about 10 per cent of the instructional package—with mixed emotions, for TV-based higher learning does not have a happy history on this side of the Atlantic.
and metrics, UMA was also helping the state delivery systems to find courses produced elsewhere for experimental use in the region. The total enrollment in Nebraska was approaching 3,000, with the students ranging in age from nine to eighty-seven, with a median of thirty-seven.

There are no admissions criteria or prerequisites. Most people enroll for credit, and most of them say they find the courses difficult but enjoyable. Some enroll simply for the pleasure of learning and a desire to become more effective people and citizens. About three-quarters of the enrollees in 1975 were women, many of them homemakers with young children; nearly half had never attended college. They came from farms, small towns, and larger cities, roughly in proportion to the distribution of the population, which means that more than a third lived in rural areas or in remote small towns.

How the long arm of television adds to UMA's reach is illustrated by the case of Mrs. Frances Grant, mother of nine children, who wanted to continue work toward a university degree but lives in Sidney, Nebraska, which has no four-year college. The wife of a farmer and implement dealer, she took the first two courses, accounting and introductory psychology. For her, UMA meant classes in her living room via televised lectures, supporting materials via the Sunday newspaper, tape cassettes and other materials by mail.

Mrs. Grant had done some college work before she was married twenty-four years ago, and with the courses she has taken now, she expects to have about half the credits she needs for a degree in social work. When UMA develops more courses that fit into her degree program, she plans to take them.

To create broadcast courses that make full use of technology's potential for teaching, UMA is marshalling talents of people from both the academic world and the field of broadcasting. Its media production was headed, until mid-1976, by Marshall Jamison, who produced "The United States Steel Hour" on CBS from 1955 to 1964. Head writer for the visual components in the early stages was Lee Benjamin, who had had years of experience in writing television films, documentaries, and speeches for national political leaders.

On the academic side, in addition to specialists from the UMA member institutions, national scholarly associations have helped select distinguished professors to serve as consultants. Historian Henry Steele Commager laid the groundwork for the humanities courses, and ex-Ambassador to Japan Edwin O. Reischauer of Harvard is overseeing Japanese studies.

For each course, a team of academic experts and media specialists devises specific lessons, using a mix of media, learning kits, correspondence, and

The TV programs were imaginatively produced, consisting of rapid-fire vignettes, sprightly dialogues about money management, and, for a change of pace, excerpts from Emerson's essays. Although students learned from the course, many critics reacted harshly to the light-hearted flavor of the vignettes.
printed materials, making provision for other contact with the students, and, of course, tests. “Designing high quality multi-media courses is far more complex than what an individual professor puts into his own class planning,” notes Jack McBride, UMA executive vice-president.

The team for the accounting courses was headed by an executive producer and two professors in the subject. Other members included an instructional designer, a professional writer, a research associate, and media production specialists. An advisory panel of experts in the field helped the team define objectives and content. Five kinds of material were produced: fifteen television programs; audio cassettes to guide the student, reinforce learning, and test achievement; newspaper lessons; a textbook, and a study guide. The materials were tested on representative students and revised on the basis of their reactions.

The TV programs were imaginatively produced, consisting of rapid-fire vignettes, sprightly dialogues about money management, and, for a change of pace, excerpts from Emerson’s essays. A repertory company of seven professional actors conveyed much of the material through sketches. Although students learned from the course, many critics reacted harshly to the light-hearted flavor of the vignettes, and a second accounting course has been toned down.

Ingenuity also went into the print materials. For maximum exposure, they were published in the statewide Omaha Sunday World-Herald and five other newspapers across the state. This strategy reached thousands who are not even enrolled for a course.

For maximum exposure, [print materials] were published in the statewide Omaha Sunday World-Herald and five other newspapers across the state. This strategy reached thousands who are not even enrolled for a course.

the readership of the weekly lessons compared favorably with the paper’s most popular editorial features. And, of course, no one knows how many also tuned into the televised lessons without enrolling.

Additional assistance to learners is provided through centers across the state (five, thus far) at which counselors who hold joint appointments with collaborating universities are available. Eventually as many as fifteen centers may be strategically spotted throughout Nebraska and the other states, located on college campuses, in shopping centers and libraries, and even in mobile vans. But visits to a center are optional for the student, who is never required to leave home except to take examinations.

UMA’s schedule calls for the production of as many as fifty-five courses by 1980. The opportunities for leasing these courses, once they have demonstrated their worth in the midwest, is a key factor in making UMA self-supporting eventually. Considerable interest has already been expressed by colleges around the country, as well as by unions and other organizations. If UMA is successful, it will demonstrate that unprecedented capital investment, long-range planning, and regional cooperation can
"There's a healthy commitment to change the program, the structure, even parts of the organization, if research shows that they aren't working, or could work a lot better."

bring high quality instruction to literally millions who would never be served by campus-based programs.

But UMA cannot afford to produce all of its courses from scratch. So the best existing courses are being acquired and adapted to UMA's special needs. Such adaptation may entail producing some additional materials, revising or dropping some sections of a course, or restructuring a whole offering. For example, the psychology course was adapted from one prepared by the University of California and the publishers of Psychology Today magazine. The original course was a multi-media package including videotapes, texts, study guides, and self-scoring quizzes. But the UMA team restructured it into fifteen units, added a live cast of actors, replaced a few of the films with others, rewrote the study guides to interrelate them with the television programs, and developed new quizzes and examinations.

To attract the broadest possible audience, the UMA planners conducted surveys which indicated that 2 per cent of the adult population expressed the intention of enrolling in a course. To err on the safe side, the planners reduced this figure by three-fourths, but the resulting projection—over 500 enrollments per course per year—still seemed adequate, and indications are that it may still be attainable. (While the UMA's ultimate enrollment cannot be predicted because it depends on the amount of outside support for expansion, the planners believe they could be reaching 100,000 people by 1980 given adequate funding.)

The most frequently requested courses were accounting, psychology, sociology, and mathematics. Most students opt for courses on a credit basis, and more than 60 per cent of those who have enrolled say they hope to obtain an academic degree.

One of the unique features of UMA is its emphasis on research and evaluation. Few programs in American higher education have been launched with such diligent attention to what the intended students want and need; even fewer have built-in provisions for continual feedback to make sure that the instruction is effective.

In education, results are usually measured, if at all, only when it is too late to do anything with them, but UMA is using results to improve its offerings. "They're really trying to listen to what comes back from the students," commented Professor Charles Wedemeyer, after an intensive study of UMA. "There's a healthy commitment to change the program, the structure, even parts of the organization, if research shows that they aren't working, or could work a lot better. This is an open learning system that is itself open to learning."
Contract Learning

"The first thing I learned about this program," says Barbara Andrus, "is that it started with me—not with some curriculum I had to fit into. Practically everything I've done in working towards the degree has been something I've wanted or needed to do, either for my personal or professional development."

Mrs. Andrus is a thirty-eight-year-old mother of four who is completing an experimental "contract learning" program at the University of Minnesota. A veteran community worker and organizer in the section of Minneapolis with the greatest minority population, she is currently director of a home for troubled teen-age girls. She had enjoyed such a sense of accomplishment in her work at the home that she no longer felt handicapped by not having a college degree. But she did feel she needed certain skills to make her program work better.

"I was struggling with how to formulate some sensible evaluation plan for the program, so we could measure how much we were accomplishing," she recalls. "The husband of a woman who works with me suggested one evening that I'd benefit greatly from some input from the University—and also that there was a program through which I could be earning a degree for what I was going to learn, and taking only classes that suited my goals and needs. At my age, and with a full-time job, it would have taken me five years to get a degree in a conventional program."

The University Without Walls at the University of Minnesota seemed ideal to Mrs. Andrus, and vice versa. "We were looking for people like her," says program advisor Jeff Johnson. "We wanted individuals who had shown they were self-starters, were highly motivated, and had the guts to try something new and a little dangerous."

Barbara Andrus' unusual way of earning her degree exemplifies a new approach to higher education. Generally known as contract learning, the approach enables each student to shape a program around his or her individual needs, interests, prior achievements, capabilities, and aspirations. Such programs usually embody the following principles:

—The student is the active, initiating agent who determines the direction of his or her own education under the guidance of faculty member.

—Faculty work on a one-to-one basis with individual students, helping them to plan and conduct their own education, rather than providing class instruction. Qualified people from the larger community serve as adjunct professors or tutors.

—Students are encouraged to learn through field studies, internships, voluntary service, travel, and work-related learning, as well as in libraries and classrooms of academic institutions.

—Emphasis is placed on interdisciplinary or extra-disciplinary learning. A prime concern is to assure that each student's program includes a breadth of experience, although students may choose to concentrate in one or two highly specialized areas.

—Prior learning, including what has been learned outside of the classroom through work, travel, or independent study, receives credit if it can be academically assessed and if it fits into the student's overall degree objectives.

—Flexible timing permits schedules that accommodate the student's life circumstances.

—Evaluation is more individualized, participatory, and varied than traditional testing or paper-grading. Graduation usually hinges on a major project with a tangible product that demonstrates the understand-
ing, knowledge, and competencies which have been acquired.

The two major experiments with "contract learning" that were established with Foundation assistance are the University Without Walls (UWW), a nationwide network of programs at twenty-nine colleges and universities, and Empire State College (ESC), a unit of the State University of New York.

The average age of students in both the UWW and ESC is roughly thirty-five; in ESC one-third are over forty. Moreover, 40 per cent of the UWW's enrollment comes from minority groups, and the same proportion have annual incomes of under $6,000. Women constitute about one-half of the student body in both UWW and ESC, and a majority in both programs hold full-time jobs.

COMMON ELEMENTS
Barbara Andrus' progress toward her degree illustrates the common elements in contract learning programs.

From the start, the student is placed squarely at the center of the educational process—rather than being confronted with a set of course requirements to be "fulfilled." "First, we took a long and honest look at where I'd come from, what I was aiming for, and what skills and knowledge I already had," Mrs. Andrus recalls. "We reviewed my life experience to identify things I'd already learned—learning I could demonstrate, and that had moved me towards my degree objectives. My former bosses, colleagues, and officials I've worked with in the community have done detailed evaluations of what I've learned and can do."

One important outcome of this self-examination is the opportunity to obtain recognition for what one has already learned, whether through formal training or through experience. The validation of such learning will enable most students in contract learning programs to graduate sooner and pay less tuition (see "Crediting Life Learning," page 26).

The second common element in these programs is the learning contract. Once the long-term goals are formulated, the student's program is constructed as a series of contracts—written agreements as to what learning he or she will accomplish over a given period of time specifying readings, research, writing, and sometimes other work. "For example," says Mrs. Andrus, "in the course of one contract I completed the draft of a training manual I'm writing, distributed it to a number of experts and fellow practitioners for evaluation and suggestions, and tested it out on a pilot group of students. I think the manual, designed for directors of the kind of facility
I am operating, will be a real improvement over what's been available before. This is the first time that a training guide like this has been prepared by a person like myself, who is working and living in the community and who—being black and having been poor—knows the people's problems from their own experiences."

These individual learning contracts, the basic units of work in UWW and ESC, are fairly standard in format: a statement of long- and short-range goals, the topics of study, the resources to be used, how long it will take, and how the end-product will be evaluated.

Helping the student design and evaluate such learning projects is the chief function of the faculty in contract learning programs. This role is quite different from conventional college teaching. Empire State has coined a new term, "mentor," to describe it. "It's one thing to teach a class of thirty," says Sig Synnestvedt, Dean of ESC's Buffalo Learning Center. "But mentoring thirty students under this system requires the faculty member to sit eyeball to eyeball with a serious adult learner. There's no faking it or doing a potted lecture. A few faculty members may experience real stress, and a few may have scurried back to traditional teaching. Yet the rewards along this path are stunning. To see another human being not just learn your subject, but develop into a fuller, better person under your stimulation and guidance—that happens only occasionally in the conventional course, but it occurs routinely around here."

Naturally, the evaluation and certification of students in contract learning programs cannot employ conventional tests, grades, and credentials. The criteria for graduation must be derived from each candidate's objectives. So each learning contract has an evaluation process built in: perhaps a report from an employer or supervisor of what has been accomplished and learned in a work or internship experience, or a faculty or committee evaluation of a paper analyzing or applying a group of readings, or a judgment by a group of experts of a product such as an art work.

Graduation is usually based on a major project embodying much of what has been learned. For Barbara Andrus, it will be the completion and validation of her training manual.

While sharing this basic pattern of contract learning, the University Without Walls and Empire State College differ in some ways. In ESC, for example, students do not generally have their prior learning evaluated until they have begun their program, whereas most UWW units will make this determination at the start, so that students know before they enroll how much of the degree they can earn this way.

Many consider this role to be a model for promoting change in higher education. It transcends the individual campuses with their limitations of viewpoint and politics... "Really significant reform inside colleges and universities may depend on the backing of a strong change agent outside them, and that is what the Union is."
The most dramatic differences, though, are in the structures of the two systems.

UNIVERSITY WITHOUT WALLS

The UWW is distinctly decentralized. Although many of the twenty-nine programs are at large institutions like the Universities of Wisconsin (at Green Bay), Alabama, and Massachusetts, others are at small private liberal arts colleges like Loretto Heights in Denver, Webster College in St. Louis, and Goddard in Vermont.

UWW programs can be set up even where there is no campus. Antioch-East's program is located in a large office building in central Philadelphia, enrolling mostly black workers from inner-city social agencies, and providing whatever remedial instruction is needed; Universidad Boricua serves Puerto Rican adults out of a converted Brooklyn warehouse; Universidad de Campesinos Libres stretches over the nine counties that comprise the San Joaquin Valley in California to bring a chance at higher education to Chicano farmworkers who may never see a "real" campus, and UWW/Flaming Rainbow, in Tahlequah, Oklahoma, helps disadvantaged American Indians who need training to find decent work.

At first, the disparities between these programs suggest that the UWW is not a single national institution, but a congeries of individual, idiosyncratic projects. What gives coherence to this decentralized network of innovations is the Union of Experimenting Colleges and Universities, a consortium (established in 1964 and headquartered in Yellow Springs, Ohio, on the campus of Antioch College) of institutions interested in exploring alternative models of higher education. The Union currently consists of thirty-one member institutions, including most of the twenty-nine which have University Without Walls programs.* The board of trustees consists of the presidents of the member institutions or their designees.

The role of the Union vis-à-vis a UWW unit depends on whether the degree is awarded locally by the host institution (which is usually the case), or by the Union itself, which has degree-granting authority from the state of Ohio. In the former case, the Union's role has been limited to providing money to plan and start the program, and then to maintaining the nationwide network of information-sharing, staff assistance, workshops, and support for special projects.

In the case of the few institutions which do not award degrees themselves but recommend successful students to receive the Union credential, the Union role is naturally greater. Here, it provides day-to-day liaison through a central staff, conducts regular evaluations, and offers continuing guidance and assistance.

*University of Alabama/New College, Antioch College/West, Antioch College/Philadelphia, Bard College, University Without Walls/Berkeley, Universidad Boricua, University of California Extension (San Diego), Universidad de Campesinos Libres (Fresno), Chicago State University, Flaming Rainbow/University Without Walls, Florida International University with Miami Dade Community College, Franconia College, Friends World College (Huntington, N.Y.), Goddard College, Governors State University (Park Forest South, Ill.), Hispanic International University (Houston), Hofstra University, Johnston College/University of Radlands, Loretto Heights College, University of Massachusetts (Amherst), University of Minnesota, Northeastern Illinois University, University of the Pacific, UWW/Providencia College, Skidmore College, Stephens College, Urban Regional Learning Center (Community College of Baltimore with Coppin State College), University of Wisconsin (Green Bay).
Sam Baskin, the architect and now president of the Union, describes its sensitive role: "We have to delicately balance supportiveness with rigor. We're dedicated to helping these programs succeed by sharing the know-how distilled from other programs that have established themselves. By providing centrally-provided expertise, prestige, and degree-granting power, we make it possible for new programs to get started with dispatch. But, like a conscientious teacher, the Union must also judge its charges and assure itself that they maintain the kind of quality which deserves the degree."

Many consider this role to be a model for promoting change in higher education. It transcends the individual campuses with their limitations of viewpoint and politics, but avoids centralized control or uniformity imposed from outside.

"Really significant reform inside colleges and universities may depend on the backing of a strong change agent outside them, and that is what the Union is," said an accrediting team which examined the operation in 1973. The Union hopes to achieve full accreditation of the consortium by the summer of 1977.

**EMPIRE STATE COLLEGE**

In contrast to UWW's diversity, Empire State College is a single institution which is intensively developing the contract learning idea throughout New York State.

ESC has administrative headquarters at Saratoga Springs, but instead of a central campus location to which students come, it operates through a statewide network of twenty-nine learning facilities. Some are full-fledged "learning centers"—buildings staffed with a substantial number of full-time faculty mentors and administrators. Others, called units, are more modest, perhaps directed by a single coordinator and several faculty members, and located in areas where there are relatively few students.

The major learning centers are in Albany, New York City, Long Island (suburban New York), Rochester, Suffern, and Buffalo. Each has a dean, administrative support staff, and a faculty of from thirteen to fifteen full-time mentors who assist up to 500 students in developing individualized programs of study.

A spirit of mature dedication prevails, whether in mentors’ meetings with individual students, small groups which have come together to discuss a topic of mutual interest, or a staff evaluation of a student's learning contract.

*Baskin will become director of the Union's new Goodwin Watson Institute for Research and Program Development on January 1, 1977. King Cheek, currently vice president for planning and graduate programs of the Union, will succeed him.*
“This is a place where people change their lives,” says one administrator. “It’s a laboratory in which people are pushing themselves to their limits, finding out things about themselves and the world that are fresh and exciting. There’s an unsolemn seriousness about these learners that you just don’t get on most campuses.”

A mentor usually handles about twenty-five to thirty students, each of whom will usually be seen twice a month, and sometimes once a week. Most of the faculty members have doctoral degrees and taught at traditional institutions before joining ESC.

To help them, ESC recently established, under a grant from the Danforth Foundation, a Center for Individualized Education to provide professional development opportunities for mentors as well as to work with other institutions within SUNY and elsewhere to advance the art of relating to students in this new way.

Working with a mentor at a learning center is only the hub of a many-spoked wheel of educational options for the student. Each learning center has identified hundreds of people in its area who have specific expertise which might be useful for learning: educators, medical and legal professionals, writers, and people with skills ranging from computer programming to restaurant management.

The centers have also probed their communities to find business and social agencies with which they can work cut cooperative arrangements. Public agencies, professional associations, museums, hospitals, clinics, industries and private concerns have all cooperated in offering facilities or teaching or field experience for students. Often, this educational commerce flows two ways: the learning centers have also provided opportunities for study to people in their places of work: industrial plants, psychiatric hospitals, county government offices, schools with Head Start programs manned by paraprofessionals seeking up-grading, and drug-abuse programs.

From the student's point of view, the ESC process is much more uniform and tightly controlled than at many units of the UWW. In fact, successful procedures and practices tend to become codified as they prove their worth.

ESC has found that most students, after the first flush of excitement over their escape from required courses and credit-hour bookkeeping, do want some

The drop-out rate in both programs is low, and most faculty members consider the work done by these students somewhat higher in quality than that produced by regular undergraduates. Graduates have achieved notable success in landing good jobs or promotions and in getting into graduate and professional schools. Over half the graduates reported advancement in their occupations; three-quarters of those who applied to graduate school were accepted by their first-choice institution.
structure to their study. They need an estimate of the time needed to earn the degree and suggested methods of progression.

Once they have developed their overall degree plan, most students qualify for advanced standing for prior learning. To win such credit the student and his or her mentor prepare a Portfolio of Prior Learning showing how it fulfills portions of the student’s overall degree program. Empire State College accepts academic credits from other institutions and also awards credit for what the student can demonstrate he or she has learned through work, travel, reading, community service, and other experiences relevant to the stated degree objective. Up to twenty-six months of advanced standing toward the bachelor’s degree, or ten months towards the associate degree, can be awarded this way. The student’s final six months of work must be done in ESC.

Each learning contract may involve independent study or a formal course on the campus of another college in the SUNY system, a correspondence course, or a media course designed for independent study. The student might become an intern in a government or social agency, work on a cooperative project with fellow students, or travel with a specific study plan.

THE RECORD TO DATE
There is evidence that contract learning works for both the students and for the institutions. Some 600 people have received degrees from UWW programs and about 2,000 from ESC. (Total enrollment at present in these two programs is about 8,500.)

The drop-out rate in both programs is low, and most faculty members consider the work done by these students somewhat higher in quality than that produced by regular undergraduates.

Graduates have achieved notable success in landing good jobs or promotions and in getting into graduate and professional schools. In a recent study of ESC, over half the graduates reported advancement in their occupations as a result of obtaining the degree, three-quarters of those who applied to graduate school were accepted by their first-choice institution, and seventeen out of every twenty graduates said they would take a master’s degree with ESC if one were available.

Even in the face of the economic distress of most campuses over the past three years, contract learning programs have grown. ESC applications for admission continue to climb at a time when many institutions are experiencing a decline. In 1974 it nearly doubled its staff, achieved full accreditation from the Middle States Association, and won several substantial grants for research and development in open learning.

The future of the UWW seems equally promising. Over 100 institutions have inquired about membership in the network. A high school-college UWW is currently being started: students will enter the UWW at the end of their junior year and work simultaneously toward completing their high school diploma and their undergraduate degree. A statewide program in Ohio, similar to Empire State College, has begun. Another special UWW project aims to leap the walls of prisons, to bring higher education within the reach of inmates and correctional personnel, and, under grants from UNESCO and the Foundation, the Union has explored the applicability of UWW to other countries through a series of international conferences. ■
The individualized contract learning programs of the University Without Walls and Empire State College do not exhaust the options for learning. Many individuals invent their own ways to learn, and prefer to acquire their education independent of any institutions.

To meet their needs, a Regents External Degree was proposed in 1970 by Ewald B. Nyquist when he became New York State Commissioner of Education.

The Regents External Degree is the cutting edge of a drive to create the nation's first "examining university"—an institution which does no teaching but provides academic recognition, in the form of credits and degrees, to students who can show that they have learned on their own. The components are equivalency examinations and other ways to validate learning, a "credit bank," and a service to evaluate courses offered by business, industry, government, and other sponsors.

The Regents Degree is truly "external" in that it is awarded by an institution which evaluates a student it has not directly taught. The University of the State of New York,* more familiarly known as the Regents, simply publishes its requirements and awards a degree to anyone who can meet them. There are no restrictions on admission based on prior schooling (such as a high school diploma), age (high-school age youngsters have enrolled), or residence. The methods of preparation are not prescribed, and there are several alternative ways the applicant can choose to show what he or she knows.

An example is Nicholas France, who was bored by City College when he tried it briefly back in 1965. He dropped out, enlisted in the Army, and was sent to Officer's Candidate School, but felt that he wasn't learning anything there, either. He did take a five-hour battery of college-equivalency exams, passing handily.

After the service, having settled down and begun raising a family in New York City, France was working for the U. S. Treasury Department's Bank Examiner's office as a financial intern when he noticed a poster in the library one day advertising the Regents External Degree program. "It sounded like my kind of education," he recalls. "No classes, no lectures, no fixed schedule. I could study when, where, and how I found most congenial."

He paid $25 to enroll in the Bachelor of Science in Business Administration program. His good marks on the Army tests earned him a year-and-a-half of college credit towards his degree. He received a couple of forty-page mimeographed study guides, purchased about twenty books, and started to study on his own.

When he was ready, France presented himself for the eleven-hour set of exams which New York State requires for the degree, and he passed them. Total cost for his college education: about $410.

"We figure France knows just about as much as the graduate of a traditional college," says Robert Anstett, registrar of the program. "That's what the exam is designed to test."

"I had a little trouble with the Treasury Department when I told them I'd soon have my bachelor's

*Not to be confused—as it often is—with the State University of New York. The former is not an academic institution but a state agency—the highest educational authority in New York—governed by a Board of Regents whose members are appointed by the legislature, and administered by the State Commissioner of Education, who is the Board's chief executive officer, and the State Department of Education.
degree through this method," says France. "They asked if it was a correspondence course, which they won't accept. But when I told them that the State of New York would certify the degree, they said it was O.K."

On the basis of having received his degree, France has been promoted from financial intern to assistant national bank examiner, and received a $2,000 raise. "I could never have managed to go back to a regular college," says France. "With a wife and child and a full-time job, I would have been behind the eight-ball for the rest of my life for lack of that diploma."

Six external degrees are currently offered: associate in arts, bachelor of science in business administration, associate in applied science in nursing, associate in science, bachelor of arts, and bachelor of science. The requirements and tests for each degree are established by faculty members drawn from the State's private and public colleges, usually working in committees of ten to fifteen members with education and testing specialists of the State Education Department.

Almost half of those enrolled in Regents External Degrees reside out of state or on military bases throughout the world. In order to meet their needs, Regents External Degree Examinations and College Proficiency Examinations are given at military bases at home and abroad and in several states.

Eight out of ten students can claim some credit towards the degree, as Nicholas France did, by presenting evidence of college course work done in the past, or comparable courses taken in the armed services, business, government, or volunteer agencies. Naturally, passing grades on other external examinations—such as the Advanced Placement and College-Level Examination Program tests offered by the College Entrance Examination Board, or achievement tests administered by the armed services—are also accepted by the Regents. Candidates may also request a "special assessment" of knowledge for which no standardized tests exist, but this has been little used so far because it is expensive ($250), time-consuming for the student, and until recently, acceptable only in some areas of study.

A related service, useful for people whether or not they want to enroll in the External Degree Program, is the Regents Credit Bank. For a fee of $50, an individual can register with the credit bank and

People who have used these Regents External Degree services come from all over the nation and range in age from nineteen to seventy-four. More than 3,500 have already graduated. Among them are a forty-two-year-old reporter for the Miami News, a thirty-year-old criminal investigator stationed with the U. S. Army in Germany, a forty-three-year-old mother and nursing director at a mental health institute, a twenty-year-old sergeant in the Air Force, and a thirty-eight-year-old housewife.
have all records of his or her college-level work evaluated according to consistent academic standards and placed on a master transcript. Each time that the user submits transcripts, the Credit Bank sends a report showing the total amount of academic work completed. Copies of this comprehensive transcript are sent free of charge, at the client's request, to any institution, agency, or business.

People who have used these Regents External Degree services come from all over the nation and range in age from nineteen to seventy-four. Over 85 per cent are employed full-time, with the largest single occupational categories being members of the armed forces and nurses, followed by teachers, business people, police, and homemakers. Only 2 per cent consider themselves full-time students.

More than 9,000 are currently working towards one of the degrees, and 3,500 have already graduated. Among them are:

—A forty-two-year-old reporter for the Miami News who earned her B.A. in English literature. Through special examinations in journalism and journalistic law, she earned thirty-six credit hours.

—A thirty-year-old criminal investigator stationed with the U.S. Army in Germany who earned his associate in arts degree by taking college courses at two institutions and by passing seventeen examinations.

—A forty-three-year-old mother and nursing director at a mental health institute who is using her associate external degree in nursing to help her achieve a bachelor's degree.

—A twenty-eight-year-old sergeant in the Air Force who earned his associate and bachelor of science in business administration degrees while based in several locations.

—A thirty-eight-year-old housewife who earned her business degree entirely through examination.

In addition to those going for a degree, additional thousands who already have a B.A. use the examinations to obtain a certificate to teach, to qualify for other professional employment, or to gain advanced standing in some college program. The state's colleges and universities have granted more than 80,000 credits through these tests.

The cost of an external degree varies, depending on how the credits are earned. If taken entirely by examination, the cost ranges from $250 to $700. If some credits are earned through transcripts of courses already taken, the cost is reduced considerably.

The initial signs are encouraging that the external degree will be accepted by the professions, educational institutions, and employers. Accounting majors are admitted to the CPA examination under the same conditions that apply to graduates of conventional programs. Similarly, nursing graduates with the Regents Degree may sit for the state licensing examination. Of the first 400 associate degree graduates surveyed, over half are now attending eighty-eight colleges in thirty-two states, as juniors. The federal government, which employed 812 of the first 1,225 graduates, recognizes the degree for career advancement. Students report a favorable attitude among employers toward the business degree.

"The real test will be what the graduates do," says Regents External Degree Director Donald J. Nolan. "If they prove to be at least as competent as their conventionally-trained peers in their jobs in business or social service, and as citizens in their communities, then the program will grow in stature."
Educational Brokering

The opening of these new routes to diplomas and degrees confronts prospective students not only with opportunities but also with the problem of choosing wisely among them. Many need help in clarifying their goals, selecting their best option, and successfully traversing the unfamiliar terrain of non-traditional study.

The Regional Learning Service of Central New York, housed in a modest old two-story residence in Syracuse, is the leading example of a new kind of agency in higher learning: the educational broker. Like a dozen or so similar agencies around the country, it helps adults plan and pursue their educational goals but does not itself do the teaching or award the degrees.

Working through a network of consultants, the Regional Learning Service counsels people in the five-county area of Onondaga, Madison, Cortland, Oswego, and Cayuga. The service is available to anyone over sixteen years old who wants help about further education or career development, at a cost of only $15 for the first three months, and $10 to renew.

“We're basically matchmakers,” says Fran Macy, director of the service and the leading spokesperson for the idea of educational brokerage. “At our right hand are the adults in this community who want further education and help in pursuing their occupational and professional goals. At our left hand is the complex array of educational programs, old and new: private and public colleges and universities, proprietary schools, correspondence study, offerings by Ys, unions, churches, and other voluntary agencies, state and federal government programs, and new ones like the Regents External Degree and the University Without Walls. It's a dazzling array of options, but a confusing one for the new adult learner. Our job is to help the client learn enough about himself and these options to make the best match. Our tools include diagnostic testing, career planning, and educational counseling. We can assess what clients already know and help them get credit for it. If they choose to return to a formal educational program, we can help them make the choice, get in, and get through.”

To play this role honestly and effectively, Macy believes, the educational broker or learning consultant must be independent of any of the educational institutions in which the client might enroll. “Client advocacy means placing learners' needs and interests above those of institutions,” he insists. “We're willing and often able to intervene on a client's behalf to cut through red tape, and sometimes to incite broader changes in institutional policies that are hampering many learners—for example, rigid rules about entrance requirements and inflexible scheduling. It's our independent status that enables us to do this. No professor or administrator can act so readily on behalf of students' interests against 'the system' at his or her own institution. Clients can trust us to act as best we can in their interests entirely, without trying to press them into conformity with the rules.” Macy is also director of the National Center for Educational Brokering, which helps set up and improve advising and advocacy services for adults throughout the country.

The Regional Learning Service seeks clients by distributing flyers and sending staff members to speak before groups and in factories and offices. Most people come on referral from friends and agencies. Of the agency's total clientele of 2,500...
as of February 1976, two-thirds were women, 60 per cent were married, three-fourths were over twenty-five years old, 40 per cent had incomes below $8,000 and 75 per cent below $15,000, and the proportion of minorities (mostly blacks) was more than double their proportion in the population.

Of all the people who walk into the RLS's front door or contact a learning consultant somewhere in the five-county region, about half are seeking career counseling and 80 per cent want more education. Forty per cent of those over twenty-five years old never attained their high school diploma—conforming to the national average.

Those without a high school diploma are counseled on four methods of obtaining one. Three of these have been in operation for several years—daytime or evening classes in an adult high school education program; the GED (General Educational Development), a series of five two-hour tests for which one can take free classes; and completion of twenty-four hours of courses at a community college, which earns a New York State High School Equivalency Diploma.

The newest avenue, opened in 1974, is the New York External High School Diploma Program developed by the Regional Learning Service. It has attracted the attention of educators around the country because it provides a way for adults to earn a high school diploma by showing what they know and what they can do in real-life situations, rather than through conventional tests.

Candidates demonstrate skills and understanding they have acquired in their roles as parents, workers, and citizens. They are "tested" by means of three take-home projects and personal interviews. There are none of the conventional high-pressure, large-group, impersonal, multiple-choice, computer-graded examinations.

Rather, measurements are made of the candidate's capabilities in sixty-three basic competencies which adults need in communication, computation, and life skills. These are determined not by test questions, but through performance of real-life tasks. One involves finding a new apartment: the candidate must read classified ads and a lease, locate the house on a map, analyze the area, write letters, compute rent or mortgage payments, etc. Another simulates application for a job. Others require actual use of community resources and political rights.

In addition to passing the five tests, the candidate must demonstrate either occupational/vocational skills (as evidenced by one year's successful employment at the same job); advanced academic skills, or some specialized ability (in art, music, or community organization, for example).

Diplomas are awarded by local school districts in New York to those who demonstrate all the competencies required by the program. In the first eighteen months, 100 adults earned diplomas. The initial graduates received their diplomas personally from Commissioner of Education Ewald B. Nyquist, who termed the program "flexible and humane" and expressed the hope that it would become available to adults throughout the state.

Plans for adaptation are afoot in several states: Texas already has ten pilot projects, and others are being considered in Illinois, Massachusetts, New Jersey, Oregon and Ohio.
Facing the Problems

Like most true experiments, open learning programs have had their failures. As noted, there was a whole generation of false starts in using television in higher education. And a few contract learning programs begun under UWW auspices are no longer operating: at Westminster College in Fulton, Missouri, for example, and a program set up by Shaw University of North Carolina in the predominantly black Boston neighborhood of Roxbury.

Perhaps more significant are certain characteristic problems that arise when teachers, students, and institutions are feeling their way in the terra incognita of individualized, self-directed study.

One of the most persistent problems is maintaining standards. Particularly in the early years of the UWW, there were many complaints in academic circles that these programs were yielding too much control to their students. "Reform or Rip-off?" was the way one spokesman, Professor Herbert London of New York University, put it in the title of an article in Saturday Review in 1972. Following a nationwide tour of the new programs, Professor London —whose views carried additional weight because he was director of NYU's own UWW program—cited instances of students "given carte blanche, usually accompanied by little assistance or evaluation. I can't possibly recount the number of times I've heard UWW students say, 'Man, this is the way to get an education; it's easy.'"

Such criticisms have declined in the last few years, as contract learning programs have codified their procedures and achieved greater rigor. But still greater quality control may be needed. In a study for the National Institute of Education,* Richard S. Granat, a Washington attorney, says that the rapid growth of external degrees tends to blur the distinction between legitimate and phony degrees. Fly-by-night diploma mill operations, he warns, will ride the open learning movement by offering worthless degrees to the public. The states give little attention to regulation, accreditation associations have not yet fully demonstrated their capacity to do the job, and there is little hope of direct federal regulation, he says. Therefore the report suggests that the states pass legislation to enforce administrative standards in such areas as consumer fraud, financial solvency, and deceptive advertising. At the same time, he urges the external degree movement to organize itself and show that its methods are effective.

Another basic problem concerns the recognition of prior learning. There is no widespread consensus, let alone an accepted methodology, for translating life experiences into measurable units. As different institutions explore different techniques, some colleges, eager to attract students, tend to make the process sound all too simple. As a result, many students have been disappointed that their portfolios did not earn them as much advanced standing as they had hoped. On the other hand, many college faculty members are still highly suspicious of the whole idea.

A third widespread problem centers on costs. Given the current economic straits of higher education, administrators are keenly interested in how the costs of open learning programs compare to conventional instruction. There are few data on the question, but meanwhile the obvious expensiveness of developing a wholly individualized set of learning

contracts with each new student has prompted Empire State College, for one, to develop packaged materials which can be widely used with students who share the same learning needs.

To aid educators in finding solutions to such problems, the Foundation has supported several ventures in research and development.

CREDITING LIFE LEARNING

The Regents External Degree is one approach to the problem of evaluating and rewarding a student's non-classroom learning, but it deals only with a limited range of academic subjects. If a broader range of learning is to be measured and applied, other approaches are required.

To begin to remedy this situation, the Foundation made a grant for preparation of the first book-length guide in the field, Awarding College Credit for Non-College Learning.* "Only in the last three or four years has anything been put down on paper about how to do it," says the author, Professor Peter Meyer of Florida International University. "As recently as 1971, when I was asked by a dean of one of the first statewide external degree programs where to find written guidelines for crediting life/work experiences, I had to admit that they were in the heads of about eight people scattered throughout the country."

Meanwhile, the number of institutions involved in assessing experiential learning has burgeoned to an estimated 300. Each of these institutions and programs has to deal with much the same problems, yet no means has existed for them systematically to share their findings.

To meet this need, the Cooperative Assessment of Experiential Learning (CAEL) was launched in 1974 by the Educational Testing Service and a group of institutions in the forefront of the movement, including Empire State College and several members of the University Without Walls. Other colleges were invited to participate, and thus far about 200 have joined what is called the CAEL Assembly. These institutions feed in ideas and reactions, test materials on their campuses, and sometimes create materials of their own which are then folded into the CAEL repertoire. Representatives meet twice a year to discuss issues and problems in the field.

CAEL's goal is to enable colleges to judge the educational worth of experiences and accomplishments outside the classroom, and award suitable credit for them. CAEL director Warren Willingham has cited examples of the problems: "Should a student get credit, and if so, how much and at what level, for having spent two months canoeing down the Connecticut River, charting its entire course, collecting and identifying biological specimens along the way, analyzing its ecological characteristics, and keeping a detailed account of the journey describing his personal growth in independence and imagination? What about another actual case, a newspaperman who has been writing prize-winning analyses of state capital policies for three years, who feels that his demonstrated understanding exceeds that acquired in a freshman course on American government? Or a woman who has successfully run a drop-in center for ghetto youth, conducting self-help groups and guiding many youngsters back to school or into rewarding jobs, who believes she's learned something important about social work and counseling?"

Such problems will not yield to mere sympathy and admiration for the learners, particularly if the goal is to spread the practice of recognizing and rewarding such learning on a basis that will command the respect of the rest of the academic community.

So far, CAEL has completed an extensive inventory of its members' current assessment procedures and techniques, and initiated twenty special projects in various institutions that will work on particular areas in the assessment of learning. It has begun to clarify the basic procedures to assess experiential learning properly.

For example, students must match their claim to have learned with their own educational goals, or with the degree requirements of the institutions, or both. An aerospace technician who sought a degree in the human services field, for example, found that his technical knowledge was not relevant, but that he could get substantial credit for his acquired skills in management, staff training, and interpersonal relations. Also, students must decide and defend exactly how much the learning is worth in credits. The judgment of experts is often used here if the learning cannot be correlated with an existing course.

"We're not looking for any magic single answer," says Willingham. "While the need for good assessment principles is widely recognized, this isn't a field in which you can hope to create standard 'instruments.' We're simply seeking to identify sound basic approaches, methods, procedures, techniques, and tools which can be modified and adapted to local circumstances and to the needs of particular groups of students." Thus CAEL, like the University Without Walls, exemplifies a decentralized network—a way of giving grass-roots innovations some added strength, acceleration, and outside leverage, without constraining them by a central authority.

COSTS

Do the unconventional open learning approaches cost more, the same, or less than conventional programs—and how does one find out? At a time when campus decisions must reflect stringent budget considerations, these questions are critical.

To contribute to their resolution, the National Association of College and University Business Officers (NACUBO), under a Foundation grant, is developing guidelines on costing out one class of approaches—the highly individualized contract learning programs. The guidelines are being developed through case studies at five institutions: Empire State College, three University Without Walls programs, and Central Michigan University.

The resulting technique will enable any institution to explore the financial implications of introducing or managing the contract learning system typified

“Should a student get credit, and if so, how much and at what level, for having spent two months canoeing down the Connecticut River, charting its entire course, collecting and identifying biological specimens along the way, . . . and keeping a detailed account of the journey describing his personal growth in independence and imagination?”
by UWW and Empire State. Thereby an institution could readily identify essential elements of a contract learning system, the interrelation of these elements in terms of costs and educational effectiveness, and the financial and programmatic effects of altering any or several of the system’s operating assumptions. For example, planners would be forewarned about such crucial factors as the much higher “front-end” costs of servicing nontraditional students, who require large doses of one-to-one counseling when they first enroll—a time when conventional freshmen cost a college the least.

**CASE STUDIES**

Two other projects, both involving the writing of case studies of leading programs, are aimed at putting useful information into the hands of educational planners. One consists of detailed case studies of outstanding open learning enterprises in fourteen countries.* The Free University of Iran, Everyman's University in Israel, the Open University in England, and comparable programs in countries including Japan, France, Kenya, and Poland, are written up in considerable detail by an international roster of experts. The University of Mid-America, Empire State College, and Minnesota Metropolitan State College are among the American projects covered.

This array of profiles illuminates the diversity of options in creating open learning systems. Questions are raised and alternatives suggested which would probably never occur to planners operating only within the conceptual framework of their own country’s higher education system.

For example, many educators unquestionably accept the high desirability if not necessity of providing for personal contact between students and instructors in systems that teach at a distance through technology. But the profiles reveal a varied and sometimes cautious approach, giving pause to planners gripped by this conventional wisdom. In Newfoundland, local tutors watch televised programs with the class, lead the discussion, and undertake to get answers to difficult points for the next meeting. In Poland’s Television Agricultural High Schools, students are invited to consultative sessions on Sundays in the nearest schools, where local teachers and agronomists are available. In Australia, the need for contact is met by vacation schools and circuit-riding lecturers who cover vast distances to reach outlying students.

On the other hand, some systems get along with far less contact. In France’s Centres de Télé-enseignement Universitaire, students manage fairly well with only course materials and radio lectures. In Germany, an institute has been set up specifically to explore “the possibility of academic studies independent of personal contact.” And a planning report by American experts, on Everyman’s University in Israel, advised that institution to “put its resources into making effective courses for individual study rather than establishing an extensive network of tutorial centers that might grow into formal instructional institutions.”

“Our purpose,” says co-editor Professor Norman MacKenzie of the University of Sussex, “was to demonstrate that there are many models for open-learning systems. Models cannot be transferred like a blueprint from one national context to another. But by presenting a variety of responses to differing

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*Open Learning, published in 1976 by the UNESCO Press.
Prospects

educational challenges we hope that those who are planning new systems will be able to select elements relevant to their own needs. In particular, we are keen to emphasize the processes of developing a system, as distinct from the tendency to copy complete systems." Early reviewers have commended the book as an indispensable planning tool for educational decision makers.

In a similar effort to inform leaders in American higher education about open learning projects in this country, Educational Facilities Laboratories commissioned a series of case studies. Included were such programs as Chicago's twenty-year-old "TV College," an outreach-by-telephone program in Wisconsin, and the University of Oregon's use of a locally franchised cable television system for transmission of credit courses on and off campus. In each case, a technical expert was teamed up with a professional writer in the field to visit the campus together. The case studies are being published in Planning for Higher Education (a joint publication of EFL and the Society of College and University Planners).

These profiles temper the optimism of those who predicted a technological revolution in higher education. But at the same time they provide solid evidence of quiet, incremental gains. The examples they offer of technology used to meet clearly demonstrated needs are helping other institutions to consider novel approaches to some of their unsolved instructional problems.

Open learning is still a freshman: none of the programs described in this report has been operating for more than five years. All are still exploring and experimenting. Strategies and techniques are still being sought and refined. The first graduates are only now beginning to show what their education has prepared them to do.

None of the men and women pioneering in open learning claims that these new projects are the answer to all the problems of American higher learning. But the conviction seems to run deep that they are struggling with the right questions:

—How can higher education better fulfill its roles of helping people achieve better lives and advancing toward a more humane society?
—How can people of all ages and circumstances be offered their fair chance at a college education?
—How can powerful modern media be harnessed for educational use?
—What does a college education become when it grows out of the student's distinctive pattern of concerns, strengths, and aspirations?
—How can higher education and "real life" be integrated better?
—How can students benefit from the other educational resources in their community?

These questions are high on the agenda facing American society. As higher education continues to struggle with them, the programs described here may help provide some answers.
## Ford Foundation Grants In Open Learning

<table>
<thead>
<tr>
<th>Institution</th>
<th>Description</th>
<th>Amount ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antioch College (Juarez-Lincoln Graduate Center)</td>
<td>Training and development to improve the effectiveness of a predominantly Chicano institution patterned after the University Without Walls (1974)</td>
<td>152,000</td>
</tr>
<tr>
<td>Universidad Boricua</td>
<td>Planning and development of a private college serving mainland Puerto Ricans, patterned after the University Without Walls (1975)</td>
<td>280,000</td>
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<tr>
<td>University of California (Los Angeles)</td>
<td>Student-directed learning program (1969, 1970)</td>
<td>51,815</td>
</tr>
<tr>
<td>East-West Center (Hawaii)</td>
<td>Research and writing by Wilbur Schramm in the field of communications as it relates to education (1974)</td>
<td>50,000</td>
</tr>
<tr>
<td>Educational Broadcasting Corporation (WNET, New York)</td>
<td>Feasibility study of converting Channel 31 into an educational broadcasting system in cooperation with educational institutions (1976)</td>
<td>22,800</td>
</tr>
<tr>
<td>Educational Facilities Laboratories</td>
<td>Study of selected U.S. postsecondary learning systems that use instructional technology (1974)</td>
<td>67,850</td>
</tr>
<tr>
<td>Educational Testing Service</td>
<td>Design of assessment techniques for learning that occurs outside the classroom (1975)</td>
<td>200,000</td>
</tr>
<tr>
<td>University of Hawaii</td>
<td>Statewide outreach in higher education (1973)</td>
<td>150,000</td>
</tr>
<tr>
<td>University of Massachusetts</td>
<td>Student-directed research at three universities: University of Massachusetts, University of South Carolina, and Federal City College, Washington, D.C. (1969)</td>
<td>95,000</td>
</tr>
<tr>
<td>Organization</td>
<td>Description</td>
<td>Funding</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------</td>
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<tr>
<td>Professor Peter Meyer, Florida International University</td>
<td>Report on awarding academic credit for nonacademic learning (1973)</td>
<td>24,920</td>
</tr>
<tr>
<td>University of Mid-America</td>
<td>Development of a regional multimedia educational system (1975)</td>
<td>700,000</td>
</tr>
<tr>
<td>National Association of College and University Business Officers</td>
<td>Development of information on costing and planning models for selected nontraditional education systems (1975)</td>
<td>47,650</td>
</tr>
<tr>
<td>National Institute of Social Sciences</td>
<td>Conferences on evaluation of nontraditional undergraduate programs (1974)</td>
<td>22,000</td>
</tr>
<tr>
<td>State University of New York (Research Foundation)</td>
<td>—Partial support for development of Empire State College (1971, 1974)</td>
<td>510,000</td>
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<tr>
<td>—Seminar on assessment of experiential learning at Empire State College (1974)</td>
<td></td>
<td>3,479</td>
</tr>
<tr>
<td>Regents of the University of the State of New York</td>
<td>Development costs of the Regents External Degree Program (1971)</td>
<td>400,000</td>
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<tr>
<td>Nova University</td>
<td>Comparative analysis of its three graduate external degree programs (1975)</td>
<td>100,000</td>
</tr>
<tr>
<td>The Open University (United Kingdom)</td>
<td>Development of new methods of student assessment and curriculum design (1973)</td>
<td>116,220</td>
</tr>
<tr>
<td>Peter P. Smith</td>
<td>Comparative study of selected higher educational management and instructional systems (1975)</td>
<td>20,412</td>
</tr>
<tr>
<td>University of South Carolina</td>
<td>Partial support for a program of undergraduate student-directed research (1971)</td>
<td>19,459</td>
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<tr>
<td>Stanford University</td>
<td>Partial support for the Committee for New Structures in Higher Education (1969, 1971)</td>
<td>35,000</td>
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<tr>
<td>Staten Island Community College</td>
<td>Cooperative Continuum, a program of reciprocal educational services involving all Staten Island schools and colleges (1976)</td>
<td>150,000</td>
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<tr>
<td>University of Sussex</td>
<td>Study of selected open learning higher education systems using media (1973, 1974)</td>
<td>77,000</td>
</tr>
<tr>
<td>Syracuse University Research Corporation</td>
<td>Regional learning service for adults in a five-county region of upstate New York (1971)</td>
<td>300,000</td>
</tr>
<tr>
<td>Union for Experimenting Colleges and Universities</td>
<td>—Development of the University Without Walls (1971, 1974)</td>
<td>600,000</td>
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<tr>
<td>—American participation in the international conferences of University Without Walls (1973)</td>
<td></td>
<td>15,400</td>
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</tbody>
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