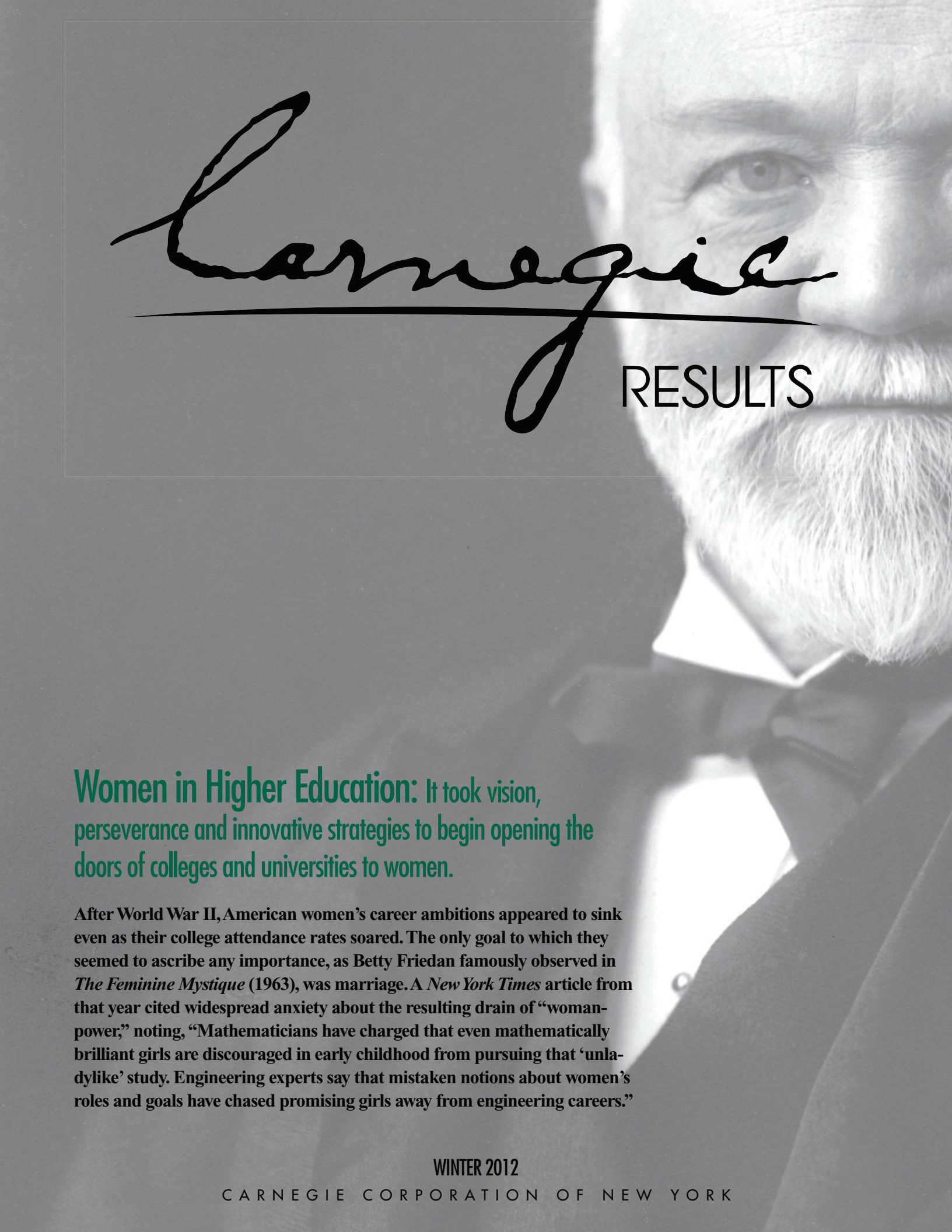

Carnegie

RESULTS

Women in Higher Education: It took vision, perseverance and innovative strategies to begin opening the doors of colleges and universities to women.

After World War II, American women's career ambitions appeared to sink even as their college attendance rates soared. The only goal to which they seemed to ascribe any importance, as Betty Friedan famously observed in *The Feminine Mystique* (1963), was marriage. A *New York Times* article from that year cited widespread anxiety about the resulting drain of "woman-power," noting, "Mathematicians have charged that even mathematically brilliant girls are discouraged in early childhood from pursuing that 'unla-dylike' study. Engineering experts say that mistaken notions about women's roles and goals have chased promising girls away from engineering careers."

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CARNEGIE CORPORATION OF NEW YORK

Carnegie Corporation of New York shared this worry. In 1959, when its officers decided to focus on the "Better Use of Human Resources," they considered a key element of this concern the "better use of woman power." The Corporation was among the first foundations to actively pursue solutions to this problem, and over the next several years, it tried myriad methods. Its programs encouraged older women to return to school and younger women to approach their education more thoughtfully. Carnegie Corporation also recognized the problematic dearth of women in the higher ranks of administration and faculty, and supported programs designed to increase their numbers.

In the mid-1950's—the midst of the baby boom—Carnegie Corporation was also pondering the field of education more generally. "The time was ripe for some real planning," according to Corporate Secretary Florence Anderson,[1] who explained that President John Gardner[2] "didn't think we could just wait twenty years to start thinking about what was going to happen when [baby boomers] hit the colleges."

The importance of women's education was a lesson that the Corporation had already learned well. In *The Politics of Knowledge: The Carnegie Corporation, Philanthropy and Public Policy* (Wesleyan University Press, 1989), Ellen Lagemann writes that Andrew Carnegie himself supported the schooling of women, if only because—in tune with his times—he believed that their education would improve the behavior of men. He intended his many libraries to benefit both genders: during a speech to a crowd at the 1890 opening of his Allegheny library, he welcomed "the masses of working men and women." Between 1925 and 1931, when Carnegie Corporation provided $239,000 in fellowships to students interested in arts teaching, archaeology, music, architecture and planning, photography, and drama, a third went to women. Perhaps most significantly, Carnegie Corporation had offered sustained support to women's colleges—including Bryn Mawr, Mount Holyoke, Vassar, and Wellesley—during a time when higher education for women was not widely valued. But the particular needs of the 1950s and 1960s called for a more concerted and creative approach to the issue.

Continuing Education

The University of Minnesota

Carnegie Corporation's first move was to invest in one of its original program interests: adult education. In the 1920s, worries about college overpopulation had prompted the Corporation to consider "the methods by which knowledge can be increased and its apprehension spread among the body of the people," according to Lagemann. Between 1926 and 1951, the Corporation had funded the American Association for Adult Education (AAAE). And well before then, Andrew Carnegie's libraries had enabled lifelong schooling for anyone self-motivated enough to pursue it.

Carnegie Corporation was fully aware that existing higher education options were unsuitable for the majority of women—and that colleges' shortcomings limited women's career possibilities. According to the Corporation's 1962 *Annual Report*, "The overwhelming majority of present programs of higher education were designed for students who had no other obligations and could adjust their lives quite readily to the requirements of the college schedule. Such programs present almost insuperable difficulties to the woman who wishes to resume her studies and at the same time meet her family obligations." New options, with flexible schedules and class requirements, would be necessary.

Between 1959 and 1963, the Corporation spent $181,000 on just such a program at the University of Minnesota. In the words of Minnesota educators Elizabeth Cless and Virginia L. Senders, who developed the project, the "Minnesota Plan" was the "first attempt to use all the resources of a university to provide a pattern to fit the life cycle and time-table of the intelligent woman." They suggested that, when women stayed home to raise families, their intellectual skills eroded and their technical skills grew outdated. Women then faced "social frustrations" after their children left home, looking forward on average to "four decades of adult living without clear understanding of its patterns and possibilities."

The University of Minnesota's program had three goals: assisting young women in planning for the "multiple-role lives" they would probably lead; harnessing the university's facilities to help women maintain intellectual and technical capacities while they raised children; and enabling "the older intelligent woman" to contribute to society.

Counseling played a crucial role in the Minnesota Plan. As Florence Anderson noted in her oral history, which she provided to Columbia University in 1967, "A university catalog is just full of things that say you can't do this except—in small print—by permission of the department, which people think you can never get, and so they don't bother. In this program, they would take the woman by the hand to the department, and talk about her credentials, why she should be admitted, and get her admitted. This kind of hand-holding was very important in the program at Minnesota."

The university added courses and seminars—including a special honors seminar on the role of women—and also offered faculty advisers, a placement service, and small scholarships. The program installed counseling staff in residence halls and at sorority meetings. Students did their part to engineer smooth experiences: they formed a babysitting service (or, as Anderson put it, "a nursery to dump their kids").

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[1] *Florence Anderson joined the staff of the Corporation in 1934. In 1954 she was appointed Secretary. She retired from the Corporation in 1975.*

[2] *John Gardner served as President of the Corporation from 1955 to 1967.*

Carnegie Results is a quarterly newsletter published by Carnegie Corporation of New York. It highlights Corporation-supported organizations and projects that have produced reports, results or information of special note.

The program enjoyed immediate success. Eager participants flooded seminars and counseling services. Minnesota staff frequently consulted with colleges that hoped to set up similar programs. By 1980, the Minnesota Plan had served as a model for hundreds of initiatives throughout the United States. Corporation correspondence brimmed with the sense of a job well done: Anderson, who helped coordinate the program, opined in a memo: "I wish all my accounts turned out as well as the Minnesota Plan." And one of its organizers signed off on a letter, "We like ourselves!"

The media liked the Minnesota Plan as well. *Look*, *McCall's*, *Glamour*, and *The London Observer* ran articles about Corporation-supported women's continuing education programs, which also provided the subject of a nationally distributed film, "To Be Continued."

A 1979 survey suggested positive though imperfect long-term outcomes for participants of the Minnesota Plan. More than half were employed at least part-time, but many sought work. Fully 81 percent reported that their education had had a positive effect on their spouses or significant others, who held their wives in increased respect, took pride in their accomplishments, and enjoyed sharing interests and ideas. But 40 percent cited negative outcomes, usually because men felt threatened by their accomplished wives. Most women saw a helpful influence on their children, reporting that they had become more organized, diligent, and self-reliant. Some, however, perceived resentment: in the words of the survey's authors, "a new self-image … as competent and capable of personal achievement…was often in conflict with others' expectations."

Programs at Sarah Lawrence, the University of Pennsylvania, and Barnard College

Between 1961 and 1964, the Corporation spent $176,000 on a similar project at Sarah Lawrence College in Bronxville, New York. According to Florence Anderson, this program was designed for "Westchester housewives" who had not completed their bachelors' degrees as well as for college graduates who wanted to undertake further study.

Sarah Lawrence started the students off with a preliminary class—a "good, stiff course," in Anderson's estimation. "If they survived that and did good work, then they could go into any class in the college." She argued that the unique introductory course was key to the program's effectiveness: it "gave [the students] the sense that they were all in this together."

Sarah Lawrence's innovative schedule also set it apart. The school provided a part-time program, so that women would spend only one day per week on campus, attending class and tutorials. Rather than maximize class time, the program called for significant independent study and reading. Women with children thus had to hire babysitters only once a week.

The program soon joined forces with New York University (NYU) to offer a master's in education; an education professor commuted regularly to Westchester to instruct the women. Sarah Lawrence also partnered with NYU's social work school, and with Pratt Institute's library program.

In the meantime, another continuing education program took root at the University of Pennsylvania. The Corporation appropriated $35,000 between 1962 and 1964 to this initiative, which fit adult women into the school's existing framework (rather than offer special classes as at the University of Minnesota and Sarah Lawrence). Before the program started, very few older students were enrolled in regular classes. But its devoted founder, Virginia Henderson, labored to break down barriers within the university, carefully selecting students and conferring individually with deans and faculty members.

By 1970, 370 students had graduated from the University of Pennsylvania's Continuing Education for Women Program, with a mix of bachelor's, master's, and doctoral degrees. Reported Henderson: "Of the women who have received degrees, some are now in graduate school here and at other institutions; several are teaching in public schools; one Master's in City Planning is working in Human Resources; one is teaching at Philadelphia Community College and continuing graduate work here; one is a teaching fellow here; and one is teaching in Japan." More broadly, Henderson continued, "I believe we are having some influence in the community and the state on the furthering of continuing education programs."

The Corporation also supported a vocational workshop at Barnard College, investing $72,500 between 1961 and 1965. Anderson described it as "an advisory program, preliminary to the decision about what a woman would do: would she go to graduate school, or back to college, or get a job and if so, what kind of job and how should she go about it?" The workshop held sessions two or three times a year, which seemed insufficient: the meetings were always oversubscribed.

Taken together, these programs enjoyed a widespread positive effect. "The idea of the continuing center for education of women has been picked up all over the country," Anderson noted. "Everybody gives you a different count, but there are a hundred of them at least…. There's hardly a self-respecting university that doesn't have one." And Alan Pifer, President of the Carnegie Corporation from 1967 to 1982,[3] described the continuing education programs as "one of the jewels in the Carnegie crown."

Research On Women

The Commission on Higher Education Report

Carnegie Corporation believed that women's study habits themselves deserved further study. Its Commis-

[3] *Pifer served as Acting President 1965 to 1967.*

sion on Higher Education, established in 1967, devoted three years to producing a 282-page report on the state of women in higher education. As *Time* magazine reported, the commission found that women made up "the largest unused supply of superior intelligence in the United States," and that fewer women than men pursued advanced degrees. Of high school graduates, 50.4 percent were female, as were 43 percent of college graduates and only 13 percent of PhDs. Less than a quarter of college-level faculty members were female, and a mere 8.6 percent were full professors. The report also found a disjuncture between salaries for men and women: $1,500 to $2,000 a year for comparable positions.

As a solution, the commission recommended overhauling the sexist system, including removing "all improper barriers to the advancement of women; an active search for their talents; and a special consideration of their problems and contributions. This means change at every level, from more math for schoolgirls (so they can enter science and engineering programs in college) to tenure for part-time faculty women (so they can combine careers and families)."

The commission's sweeping tone infuses Alan Pifer's 1976 essay "Women Working: Toward a New Society." The Corporation president called for multiple reforms, affecting "every level of education, from preschool to graduate training." He suggested attacking gender stereotypes in educational materials; engaging girls in math and science during high school; providing occupational counseling during high school and college; instituting programs at community colleges to encourage girls to enter male-dominated fields; and increasing opportunities for part-time study at universities. He also noted the paucity of tenured female professors and senior female administrators in higher education. His concerns reflected the programs that the Corporation had supported and would continue to support in the coming years.

The Center for Research on Women

The Center for Research on Women was founded at Wellesley College in 1974, motivated by the belief that the "tremendous increase in projects studying the roots of inequality now requires a national research center."

The grant proposal that Wellesley sent the Corporation cited familiar concerns: that women "represent a vast resource of energy and talent narrowly channeled into few professional fields—underutilized, to borrow the economists' term, throughout much of American society." It noted that more than half of women pursued only two fields: education and nursing. According to the National Science Foundation, in 1970, women represented a mere 9.4 percent of scientists in many areas of specialty. "If women are to contribute their talents fully to American society, we must expand professional horizons," it went on. "We must find out how to encourage women's academic and professional achievement, in all areas of study and in all fields."

The way to achieve this goal was research. "In spite of all the current talk and writing about the status of educated women, their attitudes, motivations, and opportunities, there is very little hard data and what exists is scattered and difficult to find," the proposal explained. "There is no existing research institute or clearing-house which specializes in this area." Wellesley's Center was to become that clearing-house.

Wellesley seemed a natural choice for such a place: it boasted a history of leadership in women's studies, had always employed a female president, and was heavily female in trustees, administration, and faculty. A 1974 Corporation memorandum concerning the grant noted that "Wellesley has a symbolic, as well as actual, relationship to the importance of educating women." Between 1974 and 1982, Carnegie Corporation provided the center with $491,700.

The Center focused its research on three major areas: employment, family and work, and higher education. The Federation of Organizations for Professional Women—an association of professional societies devoted to enhancing the position of women—moved from Washington, D.C., to the Wellesley center to help coordinate research projects. The Federation also collected and disseminated research results, and lobbied for changes to improve women's status.

The Center's projects were diverse. It sought to answer questions such as "how specific practices discourage and disadvantage women in large-scale organizations" and "why government initiated programs have had little impact." It undertook research on family-timing patterns, looking into how having children early or late affects women's education and work options. It examined the cognitive development of women undergraduates, and investigated "the relative impact of male and female professors on women students' self-confidence and professional aspirations."

Additionally, the Center collected, computerized, and made available statistics about women from many sources. It sponsored conferences from which publications often resulted (including a workshop conference on "occupational segregation of women" that investigated why women so often pursued similar fields, and never rose beyond a certain level). Finally, according to the grant announcement that the Corporation sent Wellesley in 1974, "leading members of the faculty intend to use the College as a laboratory where new theories of education and research findings can be tested."

The Center also provided resources to professors. Its "Program for Female Faculty" encouraged participants "to focus their own scholarship on important though still largely neglected problems bearing on our knowledge about women's roles and life course" and "to encourage faculty to devise imaginative ways to include the data produced by

such scholarship, and the new perspectives it yields, in their course materials."

One such problem was the sexism that persisted in school curricula. A 1976 project summary from the center called for a reorientation of disciplines that had "developed their approaches to knowledge primarily, if not exclusively, on the basis of male experience…. This faculty development program is not just an attempt to give 'equal time' to women, but rather to restructure approaches in order to integrate data on both men and women." In 1977, the Center evaluated curricula, outreach materials, and research on behalf of the U.S. Department of Education, which hoped to foster gender equity in schools.

That concern proved consistent: the Center's 1981 annual report described a "two-year project to analyze the 19th century American literature curriculum in American colleges." Sixty syllabi from English departments across the nation revealed that "at present, the most frequently assigned literature of the period stresses the activities of lone male figures on intellectual, moral, or physical frontiers." This project would lead to the republication of books that either "help to give readers a full sense of conventional and overlooked 'women's spheres,' or else give a foretaste of modern feminism and a critique of society in the 19th century imagination."

The Center empowered women in more direct ways as well. "Research seminars at the Center attract students as well as faculty, and other programs provide both volunteer and paid work opportunities for undergraduates as well as Winter Term internships," noted a 1978 report. "Several [students involved in center work] have commented how active participation in research with professional scholars concerned with women's issues enhances their feeling of competence and capacity for professional growth." Meanwhile, faculty served on program committees and panels for Center conferences, chaired sessions, and conducted research.

Now merged with the Stone Center for Development Services and Studies, the Center for Research on Women has been renamed the Wellesley Centers for Women, and continues to research matters of high importance for women and society at large.

Supporting Female Professors And Administrators

In addition to women's access to higher education, both Alan Pifer and the Carnegie Commission report had expressed worry over the status of female faculty and administration, citing concerns over their lack of advancement. Accordingly, the Corporation supported programs designed to strengthen the positions of women who hoped to teach or administrate at the university level.

The Higher Education Resource Services

Based at the Wellesley center, the Higher Education Resource Services (HERS)—a "referral, placement, and network-building service for academic women"—undertook, among other projects, a special program for female doctorates. Between 1977 and 1979, the Corporation provided Wellesley's HERS office with $221,150 for that purpose.

Carnegie Corporation was aware that faculty women faced unique challenges, despite affirmative action. "They tend to receive less support from mentors and colleagues and as a result are less informed about available jobs and about strategies for obtaining them," noted the grant description in Carnegie Corporation's 1977 *Annual Report*. "They also tend to get their degrees in fields where competition is keenest and have little help in exploring careers other than teaching. In addition, many women with advanced education returning to work after time out to raise children, lack the contacts and self-confidence to explore the job market thoroughly."

HERS used these problems as a springboard for workshops for doctoral women. The sessions, conducted in multiple locations, grounded participants in resume writing, network building, and interviewing. Teaching material from 1977 reveals detailed coaching: "Prepare to respond to the most awkward or difficult questions you may be asked (e.g., about your work history, why you are moving, would you really be happy at Podunk University? What about Dr. X at your last University — is he really crazy? What do you think of 'women's studies'?)" It warned: "Do not fall into the 'girlishness trap'….i.e., in being too smiling, sweet, charming, and modest to be taken seriously."

In 1981, HERS published *A Wo/Man's Guide to Academe: Moving In, Moving Up, Moving Over*, which provided similar advice about CVs, resumes, job interview negotiations, career paths, tenure negotiations, entering higher academic administration, and seeking jobs outside academia. The program provided referrals and career counseling, and in the wake of the workshops, support groups called "career cooperatives" formed.

This HERS program proved quite popular. "Many of my male colleagues are envious of my access to a 'women's talent bank' and special counseling in this era of a very tight job market," noted Sally Oleon, Dean of Faculty at Greater Hartford Community College. Barbara White of the Mills College President's Office found the service "extremely helpful in specific information about the various kinds of information available (what they entailed, the qualities required) as well as concrete advice regarding how one goes about getting an academic position. Perhaps even more important, their questions and comments helped me realistically to think through my own objectives."

June Fessenden-Raden, vice-provost of Cornell, emphasized that she "cannot stress to you how needed this

career counseling service is in academia…We are beginning to find out about jobs, the networks are forming and making referrals, but many of us do not really know where our talents lie, nor where we should take a chance and when in our careers we should take that chance."

The National Identification Program for Women Administrators

In the interest of further helping female administrators recognize when they should take chances, the Corporation provided the American Council on Education's (ACE) National Identification Program for the Advancement of Women Administrators with $612,000 between 1977 and 1984. According to Corporate Secretary Sara Engelhardt,[4] who helped oversee the program, the Corporation believed that women qualified to lead universities were already present in school administrations, but that these women weren't advancing for lack of "visibility and informal networks." The National Identification Program (NIP) aimed to develop such networks among female administrators, employers, and policy makers.

ACE identified women in influential positions in several states and asked them to coordinate programs among universities and colleges in their regions. With ACE's assistance, these women organized panels of powerful men and women who strategized about how to "identify, refer, provide support services for, and increase the visibility of women in academic administration." The panels provided access to meetings, information, and technical help for lower-ranking female administrators who hoped to advance.

ACE also conducted national forums, two-day conferences that took place all over the country. Invited participants were selected based on their "readiness for presidencies, vice-presidencies, and major deanships," and spent the conferences networking with each other and with National Panelists.

By 1981, 6,000 men and women administrators had become involved in ACE's "highly structured yet decentralized system." According to ACE's grant proposal from 1981, each state by then had its own panelists—male and female leaders from government, business, and education who exerted influence over university structure and hiring. The panel worked with a committee to provide opportunities for women administrators to gain greater visibility, often serving as their advocates and mentors. ACE regularly held conferences, social gatherings, meetings, and receptions with state organizations, college presidents, governors, and trustees. Together, attendees examined the agendas of higher education in their respective states, and focused on barriers to women's advancement. ACE also attended to the more specific needs of minority women, holding a National Forum for Women Interested in the Administration of the Historically Black Colleges.

ACE considered the program a success. Its 1981 grant proposal noted that, in the previous eight years, the number of female presidents of colleges and universities had risen to 253 from 154, a 65 percent increase, and argued that ACE had played an important role in this development. Several participants' experiences supported this view. Garry Hays, chancellor of Minnesota State College System, attended three national forums and was active with ACE in five states. When he started at Minnesota, one woman worked as a manager in his central office, and none on his campuses. By 1979, 57 percent of his staff of 40 was female, as were two college presidents, two vice-presidents, three deans, and five associate deans. He told ACE that he'd relied "heavily" on the program for nominations, and that he'd met two of his hirelings at the national forums," according to a 1979 ACE report.

Engelhardt was equally pleased with the program's progress. In a 1979 memo, she noted that ACE participants were being nominated for high-level jobs and also getting help in career planning. Through networking with women employed by different institutions, they were able to share information and support one another; this "institutional cross-fertilization" "not only helps the women do a better job but, through them, gives institutions fresh ideas and energy." After meeting with policymakers and with women in similar positions, they expanded their notions of what their jobs should involve, which frequently led their bosses to offer them greater responsibilities. According to a 1981 Corporation grant resolution, "The ACE office has become the major resource, point of reference, and origin of new activities for those concerned with the advancement of women in academic administration and related sex-equity issues." ACE also served as a model for programs geared toward other kinds of social change.

The Problems of Female Trustees

By 1981, ACE's Office of Women in Higher Education was paying increasing attention to the situation of female trustees. At that time, college and university boards were seeking more diverse memberships, and boards were also gaining more responsibility within institutions. As a 1983 letter from the Princeton Office of Continuing Education noted, "Despite these expectations, no one has studied the dynamic of adding 'nontraditional' members to the board or of the board's role in addressing affirmative action issues within their institutions."

ACE's goal, then, was to survey employees at a variety of schools in addition to members of national associations, and learn about how boards elected and integrated women and minorities. It would also focus on how boards seek to alleviate discrimination within their schools. After

[4] Sara Engelhardt was on the staff of Carnegie Corporation of New York for over 20 years. During the final 12 years of her tenure (1975-1987), she served as Secretary of the Corporation.

identifying effective strategies and programs, ACE would bring them to national attention so that all universities and colleges would be able to "make better decisions about whom they want as board members and about how to use nontraditional members most effectively," explained a Corporation memo from 1981.

Fueled by the belief that "understanding women's and minorities' experience on boards is a key to understanding the much larger issue of institutional or organizational change," the study's organizer, Mary Ellen Capek, interviewed board members at five New Jersey colleges. Her findings were not all encouraging: she discovered a "striking resistance to 'real' change, trustees' inability—or in several case articulate unwillingness—to integrate into their groups any who are not 'like them.'" She inferred that the women on boards often did not feel themselves taken seriously: "In interview after interview, the women speak knowledgeably about board issues and dynamics—in authoritative tones of voice, in complex syntax—only to revert to stereotypically feminine, breathy responses and disjointed syntax riddled with pauses and hesitant interjections when they describe their own roles on their boards: classic symptoms of people who feel themselves not taken seriously."

Yet her interviews also suggested that women *should* be taken seriously: more often than their male counterparts, they proved sensitive to "issues which in fact are often cited in the literature as facilitating more effective board governance. Among those issues women mention more often than their male peers are the need for better orientation; willingness to listen to all sides of an issue and sensitivity to group dynamics; the positive effects of operating by consensus, especially drawing out more of the 'non-participating trustees'... and sensitivity to student needs and campus life issues."

While the lasting effects of Capek's research remain unclear, board members told her that her interviews themselves prompted productive discussions at subsequent meetings, and she felt her results to be helpful: "We have more accurately defined and substantiated significant issues and a major area of study which, it is to be hoped, will shed light on at least some of the stubborn dynamics of discrimination."

Encouraging Younger Women To Explore Math, Science, And Technology

In the mid-1980s, the Corporation's focus shifted away from the general needs of women in higher education and toward a program in "education: science, technology, and the economy," which "builds on the Corporation's long-term interests in the education of school-age children, college students, and adults and in access to high-quality education on the part of minority-group members and women." The program aimed to encourage girls (and minorities) to pursue higher education and careers in math, science, and technology.

The Corporation supported a number of initiatives geared toward this end. Between 1983 and 1985, grants totaling $450,000 to the Council of Chief State School Officers enabled the Council's Resource Center on Educational Equity to start leadership institutes for teachers and politicians who hoped to encourage participation in math and science among minorities and girls. Between 1986 and 1989, the Corporation provided $600,000 to a pilot-test of a program at the University of North Carolina, Chapel Hill "designed to increase the number of precollege minority and female students preparing for math- and science-based study at the university level." The program encouraged students to move more swiftly through math curricula, and trained teachers in motivating minority students and girls to take advanced math and science classes in high school.

Convinced that "deficient school science programs coupled with a general lack of encouragement contribute heavily to the under-representation of women, especially women from minority groups and low-income families, in the scientific professions," the Corporation appropriated $361,000 to the Girls Clubs of America between 1987 and 1989. The initiative supported after-school science programs for girls in seven Northeastern sites. The goal of the program was to foster scientific inquiry among girls, as well as to polish teaching strategies, using resources at the Boston Museum of Science. Additionally, to encourage the pursuit of higher education in technology and science among girls and minorities, the Association of Science-Technology Centers (which comprised more than 200 science museums) worked with the National Urban Coalition, Girls Clubs of America, and other institutions to figure out how science museums could better serve minority, female, and handicapped students.

Along similar lines, the Hall of Science of the City of New York, a science museum, joined forces with Queens College and the New York City Board of Education to launch a "Science Teaching Career Ladder." The goal of this partnership, to which the Corporation appropriated $192,000 in 1989, was "to recruit, train, certify, and employ minorities and women as science teachers in New York City public secondary schools." Internships at the museum exposed students to science teaching; they could then attend a secondary school science education program at Queens College. Upon graduation, they were guaranteed employment as science teachers within the New York City school system. Brooklyn College, Pace, Long Island University, and other schools participated in the consortium; in recent years, the model has inspired programs as far afield as England.

Conclusion

Through its multi-pronged approach to the problems of women in higher education, the Corporation helped effect significant change in the 1960s and beyond. The programs it supported helped young college students, as well as older

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Carnegie Corporation of New York is a philanthropic foundation created by Andrew Carnegie in 1911 to promote the advancement and diffusion of knowledge and understanding among the people of the United States. Subsequently, its charter was amended to permit the use of funds for the same purposes in certain countries that are or have been members of the British overseas Commonwealth.

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graduates and dropouts, rethink their approaches to education. The Minnesota Plan, like programs at other schools, encouraged women to consider schooling as a stepping-stone to a career, rather than as a phase preceding marriage.

Later, Carnegie Corporation's attention to the plight of female faculty and administration helped provide a creative solution — the use of networking — to a persistent problem. Research on the state of women in higher education helped enlighten the public and relevant institutions about women's struggles. Finally, the program in education: science, technology and the economy, a logical follow-up to Carnegie Corporation's decades of investment in women's higher education, considered the challenges of girls at an earlier phase in their developments, but pushed them toward the same end as previous initiatives had: meaningful professional lives.

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