Career education can contribute to new role definitions for women, although it is not explicitly designed for any particular segment of society but is directed at changing the whole educational system to benefit the entire population. There is an increasing separation between students and the world of work; career education is a revolutionary approach based on the idea that all educational experiences should be geared to preparing each individual for a life of economic independence, by improving their base for occupational choice, facilitating their acquisition of occupational skills, enhancing their educational achievements, making education relevant to their aspirations, and by increasing the real choices they have open to them. It is a lifelong systematic way of acquainting students with the world of work, of which career guidance and counseling are essential components. The Federal government has recently taken some very positive actions affecting women. Teachers' organizations have called attention to the problem of women in education: the higher the grade level, the lower the percentages of women. Women faculty are paid less and not promoted as often. Career education can help women to achieve their vocational goals. (Author/AJ)
"CAREER DEVELOPMENT AND MOTIVATION FOR WOMEN"

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I am honored to have an opportunity to address this distinguished group of educators, government, business and community leaders assembled here to discuss the topic of women in science and technology. To quote Margaret Mead, "A struggle is going on in this country. It has been going on now ever since the first hint of automation made us begin to suspect that our future problem is not going to be how to create enough jobs but how to increase productivity. Our problem is going to be how to devise a system in which every individual's participation in society is such that he (and that's Margaret Mead, I would say he or she) has dignity and purpose, and the society has a rationale for distributing the results of this high productivity."

It seems fitting, therefore, that such a diverse group should be assembled here in a united effort to bring women into a leadership role in science and technology. As Margaret Mead suggested, we must devise a system for better use of the individual's productivity in our society, and, certainly this workshop is an excellent start as we consider, more fully, how women can equitably participate in science and technology.
In keeping with the workshop purpose to formulate recommendations for achieving greater participation by women in our technological society, I plan to discuss first how the concept of career education can contribute to new role definitions for women and why the Office of Education has established career education as a catalyst for change in our nation's school systems. And, second, I would like to share with this audience some of the actions taken within HEW which have resulted in greater participation by women in educational policy. Finally, I shall be happy to respond to questions regarding occupational education initiatives within the Office of Education at the present time. First, very briefly, the concept of career education. Why do we feel that there is such a need for this concept to evolve and to be installed in American education at all levels. I have been in the Office of Education just about two years and one of my major roles has been to discuss throughout the nation the concept with groups at all levels--educational administrators, teachers, businessmen and women, union leaders, deans of schools of education, and the like. We believe, for example, that the nation needs career education as a catalyst for change and these are some of the reasons. First, there is an increasing separation between students and the world of work. Students feel they are not needed by a technological society since fewer and fewer workers are necessary to produce more and more consumer goods.
Second, about one-third of all American students pass through high school by way of what we call the "general curriculum," a type of education which leaves its graduates neither trained with a marketable skill nor qualified to pursue further education. Third, there is in many of our schools an undesirable, counter-productive, separation of the vocational education, general education, and academic curricula with the result that those in the vocational curricula are often viewed as low status individuals, while those in the academic curriculum emerge with little contact, preparation toward, or qualification for the world of work.

I talked with Mrs. Wiesner earlier about a former president of M.I.T., John D. Runkle, who was president from 1870 to 1878. John D. Runkle attended a conference in Philadelphia, the centennial exposition of 1876, in which the Imperial Technical Institute of Moscow brought a display to the United States to explain how they were training persons in technical skills by analyzing jobs and teaching the jobs in a certain organized way. John D. Runkle of M.I.T. and Calvin Woodward of St. Louis University were both very impressed with the exhibit; Runkle came back to M.I.T. and installed required shop training for engineers based on the Russian system. Calvin Woodward went back to St. Louis and established the nation's first manual training high school. Now at that time both of these educational leaders were thinking together; both, vocational education and
engineering education in this country had their roots in the manual training movement.

Because of the widely held view that a degree is the only kind of socially acceptable occupational preparation in our society, many high school students choose academic preparation. However, many of these students do not go on to college, and more begin than complete it.

We heard one of the industry representatives this morning emphasize the importance of degrees in a company like General Electric where 65% of the top echelon had to have a degree before they would be considered for that echelon. This is most unfortunate. We need to de-emphasize the degree as the ticket into high status positions. In addition, the numbers who do not complete college are increasingly out of proportion with those who do go to college. The Bureau of Labor Statistics points out that in the foreseeable future nearly 80% of the jobs to be filled will not require a college degree. This is not to imply that a college education has no value other than that of preparing a student to procure employment. We fully recognize the fact that the educated adult is essential to our citizen-guided government concept; however, we do believe that there has been a misguided assumption in our society that you need a college education in order to get a job.
Our present system often results in nasty career decision making and fails to offer individuals the option of changing directions during their years of preparation or of obtaining new training and shifting occupations later in life. And, finally, our current system neither provides students with adequate career guidance and counseling while in school nor adequate opportunities for counseling, retraining, and re-entry once they have left the system. Our economy which is based on technological change, where the rate of change itself is ever-increasing, thus freezes out a large number of adults who do not have an adequate level of training and education.

What, therefore, is career education -- this concept that we feel is such an important catalyst to change educational practices at all levels. Career education is a revolutionary approach to American education based on the idea that all educational experiences, curriculum, instruction, and counseling should be geared to preparing each individual for a life of economic independence, personal fulfillment, an appreciation for the dignity of work and good citizenship as well. The principal purpose is to prepare all students for successful and rewarding lives by improving their basis for occupational choice, by facilitating their acquisition of occupational skills, by enhancing their educational achievements, by making education meaningful and relevant to their aspirations,
and by increasing the real choices they have among the many
different occupations and training avenues open to them. While it
is anticipated that career education would increase the opportunities
available to the disadvantaged, it is not explicitly designed to
involve any particular group or segment of society. It is directed
at changing the whole educational system to benefit the entire
population.

Career education recognizes the critical decision points when
students must be prepared and equipped to decide whether to pursue
a job or further education or some combination of both work and
formal study. It is a lifelong systematic way of acquainting students
with the world of work in their elementary and junior high school
years and preparing them in high schools, post high school
institutions, in the community and in business and industry, to
enter into and advance in a career field of their own choosing. For
adults it is a way to re-enter formal as well as informal programs
of education at any time to upgrade their skills in established
career fields or to enter a new career field. It is similar to
vocational education but there is a fundamental distinction. For
while vocational education is targeted at producing specific job
skills at the high school level and up to but not including the
baccalaureate degree, career education embraces all occupations
and professions and can include individuals of all ages whether in or out of school.

Career education, as we now envision it, has five levels which are not distinct and often are overlapping. I should emphasize that it involves students, boys and girls (all the children of all the people) rural, urban, rich, poor, black, white, red -- all children and youth and adults. Each level has appropriate academic as well as vocational education. Each level must also have an emphasis on career guidance and counseling.

Beginning with the earliest school experiences, career education provides at the pre-school and elementary levels a program of career awareness and occupational orientation for all children. At the middle school and junior high school, all students participate in occupational exploration in developing an understanding of the world of work. The secondary level emphasizes the development of saleable skills, further in-depth occupational exploration and work experiences for all students. The post secondary, adult and continuing levels of career education require continued career information and guidance, as well as sophisticated occupational preparation. It is important to emphasize that career guidance and counseling are essential components of career education at all levels.
In an attempt to counteract sex role stereotyping at the pre-school and early elementary levels, we have recently completed an experimental series of films to be shown on the CBS television show "Captain Kangaroo." We have attempted in these shows to show little girls a more realistic picture of the kinds of work that people do to earn a living.

One of the most successful attempts to involve all children in an understanding of technology and the man-made environment is the New Jersey "Technology for Children" program which began in 1965 with the support of the Ford Foundation. This program is now in operation in more than 1,000 elementary schools. It relates the real world to the abstract learning concept in the elementary classroom.

The Federal Government has recently taken some very positive actions affecting women. In February 1971, the then Secretary of Health, Education, and Welfare, Elliot Richardson, created the Women's Action Program in the Department of HEW. The program initially combined two distinct areas of concern -- discrimination against women within the Department, which is one of the largest departments of government, and problems of sex discrimination in society in general. The Women's Action Program has been an advocacy office, working with women in the Department and across
the nation, applying that knowledge to practices in HEW and health, education and welfare programs across the board throughout the nation.

The first report of the Women’s Action Program was issued in January, 1972. In the Foreword, Secretary Richardson suggested that, "never before has there been so widespread a need for changes in the status of women. Some believe that these changes ought to be desired by all of our citizens. One need not subscribe to this view to agree that changes are necessary for and desired by some. For certainly it is important to the welfare of our society that women should be free to pursue their interests and apply their abilities without the impediment of discriminatory barriers."

The history of the creation of the women's program in HEW reflects a number of different initiatives. In 1968, in response to the Executive Order 11375—the Civil Service Commission established the Federal Women's Program as an aspect of the Equal Employment Opportunity Program and required that each Executive Agency establish a counterpart program. The Social Security Administration was the first HEW agency to appoint a full-time Federal Women's Program Coordinator, but there was little response elsewhere in the Department at that time. In 1970 the President's Task Force on Women's Rights and Responsibilities called for the
establishment of a women's unit in the Office of Education to give leadership to public and private efforts to eliminate discrimination against women in education. Recently, I had the pleasure of meeting with the Chairman of the President's task force, Virginia R. Allan, a former educator, former president of her family drug corporation and now Deputy Assistant Secretary of State. Miss Allan's report "A Matter of Simple Justice," is one I know your panels will be discussing.

In January of 1972, my office issued a memorandum concerning vocational education to all State departments of education. We directed within the limits of our authority that the state vocational education agencies begin to eliminate sex discrimination at once in vocational education. Just this week the Office of Civil Rights in HEW stated in a national publication that OCR will inform vocational schools of the provisions of Title IX of the Education Amendments of 1972.

Many of the teachers' organizations have, I think, done an outstanding job in calling the nation's attention to the problem of women in education. Just recently, the American Federation of Teachers in their international conference gave the statistics of the numbers of women in various educational levels. They pointed out that women comprise 80% of the nation's elementary school teachers,
50% of the nation's secondary school teachers, 25% of the nation's community college teachers, only 14% of the nation's 4-year college teachers are women. In other words, they stressed that the higher the grade level of education the lower the percentages of women and this statistic highlights a very important problem ... the attitudes of young people at that level where 80% of the teachers are women; the typical woman teacher's attitude toward occupations may not be the broad type of occupational attitude that we would like to elicit in our young children.

All of you must be very concerned about the problem that was uncovered and publicized recently by the National Center for Educational Statistics in the Office of Education. In a study published in April, women were noted as 22.5 percent of the full time faculty in American colleges, but paid an average of $2,500 less than their male colleagues. There are about 254,000 faculty members teaching full time in the nation's nine and ten month schools. Male faculty members average 14,300 annually while their female counterparts average $11,800. The salary gap is greatest at universities where the average salary for men is $15,800 as compared to the average of $12,300 for women. Less than 10% of all women faculty have reached professorial rank in contrast to 25% of all men.
As you may know, President Nixon recently presented the Federal Woman's Award to federal employees and indicated that he would like to quadruple the number of women in high government positions during the next four years.

In conclusion, I would like to quote from Essays on Career Education. One of the authors, Susan Margo Smith, who is Assistant to the Provost at Macalester College in St. Paul writes, "No one formula for change exists because it is a dynamic process that we are attempting to encounter. But there are some trends we must create and others we must interrupt if we're to invade the educational and vocational malaise of so many contemporary women. At the very least, we must dispel the disappointment and overcome the resignation that so frequently dominates their world. To do so we must reorder their self-images to exclude the shadow of inferiority and renew their belief in personal choice. We must help them analyze the sexual stereotypes they hold and educate them to face the processes of conditioning to which we are all subjected. Above all, we must encourage them to grow conscious of themselves as women with many facets who have futures full of options." I believe career education can help to achieve many of those goals.