

# CHILD CARE IN THE 1990s Trends and Consequences

edited by  
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Bringing together professionals from sociology, economics, psychology, and family studies, this volume presents papers from a symposium on child care that sought answers to each of the four questions listed in the table of contents. A lead speaker provided an answer, and discussants had a chance to critique the main presentation and set forth their own views. Each session also included a policy person to deal with issues from an applied perspective. The lead papers, review papers, and rejoinders constitute the contents of this volume. Interdisciplinary in scope, it deals with the central issue in a systematic way and attempts to present divergent points of view on each question. As such, it provides the reader with current information and a review of issues intended to provoke new ways of thinking about child care.

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## Introduction: Recent Trends in Research on Gender and Education

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Title IX legislation to improve the educational opportunities of women was enacted in 1972. During the last 2 decades we have witnessed the most significant gains in women's level of education since the early 1900s when women first gained access to higher education. Between 1960 and 1989, for example, the proportion of women attending and completing 4 years of college doubled (National Center for Educational Statistics [NCES], 1991). Today, women represent more than half of all college students, and they earn half of all college degrees awarded up through the master's level. Women in the United States now have greater access to higher education than do women in Great Britain, Germany, and Japan.

Nonetheless, there has been only a slight reduction in the amount of sex segregation found in courses of study selected by women. Women continue to dominate many traditionally female fields, such as education, library science, and foreign languages. The most significant changes have occurred in law, medicine, business, and architecture (McLaughlin et al., 1988). Women also have made significant advances in science, mathematics, and engineering, but they are concentrated heavily in life sciences, social sciences, and psychology (National Science Foundation [NSF], 1990).

During the first half of the 1980s, many programs emerged to increase the proportion of women in engineering and the physical sciences. Between 1976 and 1986, we saw a 29% increase in the number of women earning bachelor's degrees in science and engineering (NSF, 1990). The success of these programs clearly demonstrates that it is possible to recruit more

women into technical fields. Unfortunately, funding for such programs has decreased over the last 8 years. Not surprisingly, the number of women enrolling in, and completing, bachelor degree programs in engineering also has decreased. At present, women earn only 14% of the bachelor's degrees awarded in engineering (NSF, 1990). This decline suggests that women continue to avoid programs in engineering and physical sciences unless they are exposed to active recruitment efforts. Why?

A recent study commissioned by the American Association of University Women, *How Schools Shortchange Girls* (Wellesley College Center for Research on Women [WCCRW], 1992), concluded that what girls learn in elementary and secondary school shapes their future career and life choices. Considerable attention has been focused on the retention of girls in mathematics as a way of increasing their educational and occupational opportunities. Recent research suggests that the gender gap in mathematics achievement is closing (Hyde, Fennema, & Lamon, 1990), but highly capable girls continue to drop out of higher level mathematics courses because they lack confidence in their abilities or discount the value of mathematics for their future plans. Women currently represent 40% of those students enrolled in high school calculus courses (NCES, 1991). Even among the most mathematically gifted adolescents in the country, girls are substantially less likely to take mathematically oriented high school science courses such as physics (Benbow & Minor, 1986). As a result, gender differences in mathematical achievement at the higher proficiency levels remain fairly large (NSF, 1990), especially among high ability students (Benbow, 1992). Gender differences in tests of mathematics achievement are less evident when students take comparable courses in mathematics during high school (Linn, 1991).

Gender differences continue to exist in several other areas of achievement. National surveys indicate that boys, particularly in older age groups, have scored higher than girls on tests of reading and writing abilities since 1971 (Mullis, Dossey, Foertsch, Jones, & Gentile, 1991). Gender differences for verbal scores on the Scholastic Aptitude Test, which previously favored females, have begun to show a small advantage for males in the last few years (Burton, Lewis, & Robertson, 1988). Trends in science achievement from 1970 to 1986 suggest that gender differences have more than doubled at the middle school level and have narrowed only slightly among older students (Mullis & Jenkins, 1988). Also, as women's participation in the paid labor force is increasing, analyses indicate very little change in the sex segregation found in most vocational education programs at the secondary and postsecondary levels (WCCRW, 1992). As a consequence, women are still not being trained to take jobs in technical occupations—occupations in which they could expect to earn salaries commensurate with their male peers (Eccles, 1987).

Of even greater concern is the fact that most studies of gender differences in educational achievement have compared males and females, as if they represented homogeneous groups. Evidence suggests that gender differences in achievement attitudes and academic performance favor girls in more ethnically diverse samples (Pollard, 1993; WCCRW, 1992). However, compared to White girls, African-American girls and Hispanic girls are more likely to perform below the national average on standardized tests, less likely to enroll in advanced coursework, and less likely to pursue college majors in mathematics and science (Clewel & Anderson, 1991). Research examining the influence of both gender and minority group membership is further complicated by the confounding influence of socioeconomic status. Few studies disentangle the effects of gender, ethnicity, and social class.

### OVERVIEW OF SPECIAL ISSUE

This special issue of *Educational Psychologist* brings together a diverse group of researchers to examine the state of gender research on educational achievement with a special emphasis on cultural variations. The primary focus is the educational experiences of students at the elementary and secondary levels where gender bias in school experiences can have a lasting effect on women's development (WCCRW, 1992). This issue examines how race, socioeconomic status, and other cultural influences combine with gender to shape those experiences.

In the first article, Susan McGee Bailey summarizes the current status of research on gender equity in American schools. This article describes how boys and girls are not equal with regard to the amount of teacher attention they receive, the type of encouragement they receive from opposite-sex peers, and the type of messages they receive concerning the appropriate roles for men and women in today's society. Bailey also argues that attention must be given to what is not taught in schools. Specifically, issues concerning sexual harassment among students and sex education can no longer be ignored if schools want to promote gender equity.

In the second article, Diane Pollard examines recent research on the school experiences of African-American students. Pollard argues that most studies of ethnic differences in school achievement ignore the fact that individuals hold multiple statuses. This article reviews recent research on gender differences in academic achievement within African-American samples. Research in this area indicates a higher pattern of achievement for girls than for boys, leading to a greater focus on the low performance of African-American boys. However, Pollard presents research that shows few gender differences in African-American students' perceptions of their abilities, perceptions of social support, and strategies for solving school-

related problems. This research further suggests that African-American students often find their major sources of support outside the school environment.

The 1980s were marked by significant declines in the economic well-being of children. Constance Flanagan examined the effects of a changing economy on working-class students' educational and occupational aspirations. Findings presented by Flanagan indicate that changes in family income can have a differential influence on boys' and girls' school adjustment, academic motivation, and future educational plans. Although working-class girls generally perform better in school than their male counterparts, girls have lower aspirations for their future than do boys. Flanagan argues that feminization of poverty will continue unless greater attention is given to gender in research on social class and school achievement.

The final article examines gender differences in science achievement from a cross-cultural perspective. Kahle, Parker, Rennie, and Riley propose a theoretical model, based on research in the United States and Australia, to explain relations between cultural stereotypes, classroom interactions, and students' confidence and interest in science. This research suggests that without specific gender equity training, teachers will continue to communicate to students that high achievement and persistence in science is inappropriate for women. In addition, the masculine image of science must be addressed in any program to improve the science achievement and participation of women.

### DIRECTIONS FOR FUTURE RESEARCH

The articles in this monograph highlight several areas for future research. First, there is a need for additional research that examines the role of education in preparing women for their future economic roles. Projections indicate that women will constitute 64% of the new labor force entrants over the next 10 years (Adelman, 1991). A majority of the new female workers will be women of color. In the past, these women were employed at the lowest levels of traditionally female occupations. As a result, the average income earned by women of color is considerably lower than that of White women, which is still less than 70% of what White men earn. Families that are in most danger of poverty today are those headed by women, particularly women of color (WCCRW, 1992). Increases in the earning potential of women will depend in part on their ability to enter higher paying male-dominated occupations. How can schools encourage students to consider nontraditional choices and options for themselves?

As Pollard (1993) points out, researchers need to focus on what promotes

and sustains achievement in ethnically and socioeconomically diverse samples. To date, attention mostly has been focused on how these groups do not perform as well as White middle-class samples. Achievement differences are explained in terms of deficits in cognitive abilities, motivation, family background, and home environment. Deficit models provide little help in identifying those characteristics of schooling and instruction, such as low teacher expectations and tracking programs, that undermine the academic interests and competencies of students from different ethnic and cultural groups. Rather than focusing on what is wrong with these students, we need to ask why efforts to increase the educational opportunities of excluded groups have not brought these students into the mainstream of educational achievement. This is especially true for the subject areas associated with physical science and mathematics.

There is also a clear need for a developmental perspective. Both sex and ethnic group differences are more pronounced during adolescence than before. Why? Is it something about the psychological, social, and/or biological processes associated with puberty? Do schools change in systematic ways that undermine the motivation of some students more than others? Do identity processes associated with gender and/or ethnic roles differentially affect boys and girls and students of color versus White students? How can schools respond to these developmental patterns in ways that support the motivation and interest of all students as they move into, and through, the adolescent period?

More attention needs to be given to the influence of peers on students' achievement and motivation. Evidence summarized by Pollard (1993) suggests that peers are not seen by African-American students as a source of positive support for achievement. Even more troubling is evidence indicating that opposite-sex peers create a negative climate for learning (Bailey, 1993). In fact, a recent poll of students in Grades 8 through 12 suggests that peers are the primary source of sexual harassment in schools (Barringer, 1993). Compared to boys, a greater number of girls report that fear of harassment has a negative impact on their school attendance, participation in class, and study habits. Other research suggests that peers also may have a restricting influence on girls' educational choices. Some of this work, for example, suggests that girls may avoid taking courses in math, physical science, and other technical subjects because of the negative reactions they expect to get from male peers (Bailey, 1993). Consistent with these findings, Maccoby (1990) concluded that peers are the predominant force in maintaining gender-role stereotyped behaviors and preferences. But in fact, relatively few studies have actually examined the influence of peers on girls' achievement attitudes and academic performance. More work is clearly needed.

Given the magnitude of the concerns identified in each of the articles, it

is essential that we think seriously about the general lack of attention given to both gender and ethnic group equity in teacher preparation programs in this country. As Kahle et al. (1993) point out, one can create and implement more gender-equitable curricula and instructional practices. But successful implementation depends on a high level of commitment to the necessary teacher training. Such a commitment is not evident in most U.S. school districts. States have not moved to mandate training in equity as part of the teacher certification process. Not even the National Council of Teachers of Mathematics included equity as one of its goals in its blueprint for achievement excellence in mathematics education by the year 2000. Why?

It is important that we put our discussion of gender and ethnic group equity into a larger frame of reference. Schools are but one player, albeit a very powerful player, in shaping children's achievement attitudes and educational choices. Both gender and ethnic group differences are also shaped by parents, mass media, economic constraints and opportunities, community values and resources, and larger cultural value systems. If we are to change the opportunities and outcomes for the next generation of students, educators and researchers will need to adopt a broader cultural perspective. We hope the research discussed in this volume will inform and contribute to such efforts.

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