Gender in Policy and Practice

Perspectives on Single-sex and Coeducational Schooling

Edited by
Amanda Datnow and
Lea Hubbard

Sociology in Education

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PERSPECTIVES ON SINGLE-SEX AND COEDUCATIONAL SCHOOLING

Edited by

Amanda Datnow *and*

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Section One

INTRODUCTION AND BACKGROUND

CHAPTER 1

Introduction

Amanda Datnow and Lea Hubbard

This volume on single-sex and coeducational schooling grew out of a special meeting at the annual conference of the Research on Women in Education Special Interest Group of the American Educational Research Association, held at Hofstra University in New York in 1998. A group of us who had conducted or were currently conducting studies of single-sex and coeducation schooling were brought together by Patricia Schmuck, a longtime scholar in the field of gender and education. The goal of this meeting was to discuss what we know about single-sex and coeducational schooling and consider the questions that remain unanswered. We shared our research and discussed the commonalities and differences that we saw emerging from our data. Alan Sadovnik, who was also present at the meeting, shared his research and suggested that we put together an edited volume, which he offered to consider for his RoutledgeFalmer book series. Most of the individuals who were present at that meeting contributed chapters to this volume, and additional authors were solicited as the book was developed in order to include a more comprehensive rendering of the subject.

This volume—and indeed the meeting that led to it—comes at an important and interesting historical moment in education in general and for single-sex and coeducational schooling in particular. It is a time when there are persistent calls for the improvement of the American public education system, as well as educational systems throughout other Western countries and elsewhere. The push for improvement has resulted in a plethora of reform agendas, movements for nationally driven standards and increased accountability, a common curriculum, and comprehensive school reform, to name a few. There are also efforts by some to expand school choice both outside and within the public school system.

There also have been concerns on the part of some about gender equity in schooling, as many studies over the past twenty-five years have docu-

mented gender bias against females in coeducational classrooms both at the K–12 and higher education levels. (See AAUW, 1992; 1998b for reviews.) Females have historically received less teacher attention than boys, feel less comfortable speaking out in class, and face threats of sexual harassment in school (AAUW, 1993; Sadker and Sadker, 1994). Although the achievement gaps between boys and girls are closing some areas, girls' achievement still lags behind boys in math and science, and most significantly in computer science and technology majors and careers (AAUW, 1998b, 2000). There is also concern that gender equity solutions have reached girls of different ethnic groups unequally. For example, Latinas perform less well than other racial and ethnic groups of girls in several key measures of educational achievement (Ginorio and Huston, 2001).

Although gender equity has long been discussed in terms of remedies designed to raise girls' achievement, more recently, some scholars have begun to ask, "What about the boys?" (Gurian, 1998; Pollack, 1998). Public discourse has centered on a "crisis" for boys, focusing on their lower reading and language test scores and higher rates of special education referrals as compared to girls (Kleinfeld, 1999), as well as boys' greater propensity to be involved in violent crimes (Gilbert and Gilbert, 1998). All boys are seen as at risk of these problems, but most notably boys of color. Increasing rates of dropout and higher rates of incarceration are particularly salient for African-American boys and men (Leake and Leake, 1992).

Some scholars argue that this shift in focus toward boys is the result of social backlash against feminism as well as a "zero-sum" perspective that reforms cannot improve the outcomes of schooling for girls without negatively affecting the outcomes for boys (Gipps, 1996; Yates, 1997), and many feminist researchers believe that gender equity is still problematic for girls. As these debates suggest, gender bias can no longer be seen as an isolated problem, but is now understood as representative of larger systems of oppression, which include race, class, and sexuality. Gender bias is now seen as affecting both girls and boys, because neither group is immune to societal pressures and expectations. Reform efforts are thus more complex than simply eliminating sexist language or curricula, but rather require educators to strive to implement alternative pedagogies that challenge the unequal power relations inherent in traditional education and society (Murphy and Gipps, 1996).

Public schools in at least fifteen U.S. states have recently responded to calls for the improvement of education more generally, or to gender equity concerns, through experiments with single-sex education, most often in the form of separate math or science classes for girls (Streitmatter, 1999). Other manifestations of public single-gender schooling include Afrocentric academies for boys in Detroit, Baltimore, and Milwaukee, California's single-gender academies, and the Young Women's Leadership schools in Harlem and

Chicago. Although some of these experiments have been found in violation of Title IX and have been forced to close or become coed, others continue. Over the past few years, in an effort to loosen Title IX's control, Senator Kay Bailey Hutchison (Republican, Texas) has attempted to pass a Senate bill to allow public school districts to experiment with federally funded single-sex education (Hutchison, 1999; Richards, 2000).

Significantly, as of May 2002, there are new federal regulations which provide more flexibility for, encourage, and help support single-sex public schools. Most instances of single-sex schooling still occur in the private sector in the United States. Recent years have seen a rise in the number of single-sex private schools for girls as well as an increase in applications to girls' schools. A 1998 survey by the National Coalition of Girls Schools of their member schools found that enrollment at girls' schools had increased 18.7 percent since the organization's founding in 1991, and applications to girls schools increased 32 percent over the same period (*http://www.ncgs.org/Pages/news.htm*). The Coalition reported in 2001 that in the second half of the 1990s, thirty-two new all-girls' schools were founded in the United States (*http://www.ncgs.org/Pages/tenyears.htm*). The organization describes girls' schools as experiencing a "renaissance."

At the same time, there have been developments with regard to single-sex and coeducational schooling in the higher education sector. Whereas in the 1970s and 1980s numerous women's and men's colleges made the decision to become coeducational, in the 1990s there began to be a renewed interested in women's colleges (Riordan, 1990; chapter 8 of this volume). However, this renewed interest has not yet translated into increases in the number of women's colleges, as we have seen in the K–12 sector. Why the interest in single-sex public schooling? Advocates point to studies of Catholic single-sex and coeducational schools that find academic achievement benefits for girls and low-income and minority boys attending single-sex schools (e.g., Lee and Bryk, 1986; Riordan, 1990). Research on gender in the 1980s (Belenky et al., 1986; Gilligan, 1982), arguing that women learn differently than men, also has helped to provide justification for all-female schooling. Proponents of single-sex education also argue that the separation of the sexes is the most effective way to manage classroom behavior by eliminating distractions and peer pressures for both boys and girls (Pollard, 1998) and providing leadership and character development opportunities for each group. All-boys' classes or schools are looked upon by some educators and policymakers as ways to improve literacy achievement and discipline (Gilbert and Gilbert, 1998).

Advocates of all-male Afrocentric academies in public schools argue that the presence of African-American role models and a focus on multicultural curricula can be beneficial in developing leadership skills and improving achievement for African-American boys (Hopkins, 1997). Clearly, the reasons behind the recent establishment of single-sex schools are no longer simple; they represent efforts to address not only gender bias, but also racial and cultural issues as well.

Single-sex education, however, also has its critics. The National Organization of Women and other feminist groups argue that segregating students leaves the inequities of the public school system intact. Some studies have questioned the academic and social advantages offered by single-sex schooling, arguing that school factors contribute more to positive outcomes than gender separation (Lee, 1997). Other researchers also argue that single-gender educational settings promote stereotypical gender roles and attitudes toward the opposite sex (AAUW, 1998a; Lee, Marks, and Byrd, 1994). A significant limitation is that most studies of single-sex schooling have been conducted in the private sector and therefore may not generalize to public schools. (See Mael, 1998, for a review.) This raises important concerns for the validity and relevance of research findings. As Pamela Haag asks, "Do students achieve because of a school's sex composition or because the schools draw from economically and educationally privileged populations?" (AAUW, 1998a, p. 15).

Our goal in this book is to expose the complexity of single-sex schooling, as well as contribute new insight on how gender operates in policy and practice in education. The chapters in this volume examine a wide range of contexts in which single-sex and coeducational schooling exist. The chapters deal with K–12 and higher education, public and private schools, U.S. and international contexts, and the schooling experiences of both young women and men. Particularly novel issues that receive attention in this volume include public single-sex schooling, the transition between single-sex and coeducation, the voices and experiences of males in addition to females, and qualitative studies of single-sex and coeducational schooling. All of the chapters in this book include implications for policy and/or practice. This is the first volume of its kind; no prior edited collections have examined a diversity of studies on single-sex and coeducational schooling, much less in this breadth or depth.

The authors in this volume approach the topics of single-sex and coeducational schooling from a variety of methodological and theoretical perspectives, including historical, sociological, psychological, legal, and qualitative and quantitative, sometimes using a feminist approach. In general, this book marks a shift away from prior notions of viewing single-sex schools as merely a way to organize students. Instead, in many chapters, single-sex and coeducational schools are examined within a framework that embodies institutional and ideological notions of gender as a principle of social differentiation. Engagement of this critical perspective hopefully will allow our audience to understand the way schooling shapes and is shaped by the social construction of gender in historical and contemporary society.

An important note about language bears mentioning here. Typically, the terms "sex" and "gender" refer to the biological and social characteristics, respectively, of being male and female. As Pamela Haag notes, "Schools with all girls are not necessarily single 'gender' because they may include students with both 'masculine' and 'feminine' identities" (AAUW, 1998a, p. 36). Single-

"sex," therefore, is a more accurate characterization of an all-male or all-female school; however, some of the authors in this volume, ourselves included, often refer to schools as single "gender" because that is the way they were referred to in their local contexts. Hence, in some chapters, the authors refer to single-"sex" education whereas others refer to single- "gender" education.

ORGANIZATION OF THE BOOK

Section One is intended to introduce the reader to the major findings and debates in research and the law related to single-sex schooling. The chapter by Riordan provides a summary of empirical findings on the effectiveness of private single-sex schooling at the K–12 level, finding support for the practice under certain conditions and discussing implications for public schools. Conversely, the chapter by Campbell and Sanders questions the assumptions and findings about single-sex schooling at the K–12 and college levels, particularly with respect to the goal of gender equity. The final chapter in this section, by Salomone, considers in detail the historical and legal issues surrounding single-sex schooling, arguing for "a lifting of the legal cloud" over single-sex schooling in order to allow for more experimentation in the public sector.

Section Two is devoted to the topic of single-sex public schooling in a changing policy environment, examining both U.S. and Canadian contexts. The chapter by Herr and Arms discusses how competing pressures and multiple innovations skewed the implementation of what was touted as primarily a single-gender education reform at one California public middle school. In the next chapter, Sanford and Blair draw on case studies of three schools to discuss how the advent of single-sex public schooling in Western Canada is changing the nature of classroom practice with respect to gender equity. The third chapter in this section, by Hubbard and Datnow, examines some of the conditions facilitating and constraining the sustainability of public single-sex schooling, drawing on findings from our study of single-gender public schools in California and elsewhere.

Section Three focuses on the transitions from single-sex education to coeducation. Sadovnik and Semel discuss the history of Wheaton College, as it moved from being an all-women's institution to "conscious" coeducation in 1998. Next, Miller-Bernal examines the history of coordinate liberal arts colleges for women (i.e., those affiliated with and sharing some resources with men's colleges, but retaining a separate identity), comparing several instantiations of coordinate colleges and concluding with their implications for coeducation. Diamond and Kimmel's chapter explores the integration of women into two military institutions, the United States Military Academy at West Point, and the Virginia Military Institute, providing the perspectives of both female and male cadets from the first coeducational classes. In the final chapter in this section, Schmuck, Nagel, and Brody summarize their findings from

a study of the role of gender consciousness and privilege in three Catholic secondary schools in transition from single-sex to coeducation.

Section Four illuminates the experiences and outcomes for students in single-sex and coeducation from both quantitative and qualitative perspectives. First, Streitmatter describes how girls and boys see single-gender schooling in an urban public middle school rather differently, with girls deriving more empowerment and community building from the experience than boys. In the next chapter, Gilson compares the academic experiences and attitudes of girls toward mathematics in single-sex and coeducational independent schools. Ainley and Daly examine how girls' and boys' participation levels in science courses in Australia and elsewhere are affected by whether they attend single-sex or coeducational schools.

Section Five focuses specifically on constructions of gender in single-sex schooling. Although many of the chapters in this volume speak to the issue of "doing gender," the chapters in this section focus directly on how gender is socially constructed from a number of different angles. First, Gallagher considers how gender constructions and perceptions of judgment shifted for girls who participated in the drama in a racially diverse, Catholic single-sex school in Canada. This chapter is novel for its investigation of the arts and single-sex education because most prior work has focused on core academic subjects. Second, Woody illuminates how definitions of masculinity are constructed in public single-gender academies in the United States, illuminating boys' voices as well as those of their teachers and female peers. Finally, the chapter by Heather examines how parents' constructions of gender influence their choice of a single-sex school for their daughters.

COMMON THEMES

Numerous common themes emerge from the findings that are presented across the chapters, and we believe they are worth mentioning here. First, and perhaps most important, many of the authors find that both single-sex and coeducational schooling can provide possibilities or constraints to students' achievement or future opportunities, and these outcomes depend to a great degree on how these forms of schooling are implemented. As Kruse states: "Sex-segregated education can be used for emancipation or oppression. As a method, it does not guarantee an outcome. The intentions, the understanding of people and their gender, the pedagogical attitudes and practices, are crucial, as in all pedagogical work" (1996, p. 189). The same is true for coeducation.

Second, and on a related note, numerous studies reported in this volume find that a commitment to gender equity must be explicit in an organization's practices for it to be realized. In other words, it is not enough to have a philosophical commitment to gender equity, although that is, of course, important, but a school or university's curriculum, instructional strategies, and organiza-

tion must support this goal or policy. Achieving gender equity means not only providing equal opportunity to both genders but also acknowledging the power differences that exist between men and women in society and looking for ways that educational institutions can alter these taken-for-granted patterns that often place women on unequal footing to men and lead to restrictive notions of masculinity and femininity. Consideration also must be given to how males and females of varied races and ethnicities might be favored differentially in society and educational institutions, and what can be done to create equity in this regard as well.

Next, a number of the chapters in this volume document the ways in which sexism in the larger society undermines institutional efforts to foster gender equity. That is, even when schools, universities, or particular individuals in these settings attempted to create gender equitable environments in which young women and men could thrive, these efforts often conflict with societal beliefs in some communities regarding more traditional roles for men and women. Both within educational institutions and the contexts in which they were embedded, researchers often came across dichotomous understandings of gender wherein males and females were thought to be polar opposites. Often, these definitions of gender served to limit possibilities for males and females in single-sex and coeducational settings.

A final common theme that appears in numerous chapters in the volume is the struggle to make sense of what many see as conflicting evidence regarding the effectiveness of single-sex schooling, as well as the difficulties that institutions themselves face in defining whether and why a particular form of schooling (coed or single-sex) is preferable for whom, and under what conditions. These are thorny questions, which most often result in the answer, "It depends . . ." Although this volume breaks new ground in a number of key areas, further research is still needed into the various contexts in which single-sex and coeducational schooling now exist.

Our hope is that the chapters in this book, taken together, will help inform educators and policymakers about how single-sex schooling is positioned in historical and contemporary perspective; how it operates in the public education landscape, as well as in private and higher education; how it impacts the schooling experiences of young women and men; compares to coeducation; and how it contributes to the reproduction or resistance of constructions of gender and gendered relations of power. With new federal support for single-sex public education, and with single-sex schools proliferating in some areas and provoking considerable debate, this collection provides timely information on an important topic.

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CHAPTER 2

What Do We Know about the Effects of Single-Sex Schools in the Private Sector?: Implications for Public Schools

Cornelius Riordan

INTRODUCTION

Most Americans take coeducation for granted. Typically, their own schooling has been coeducational; often, they have little awareness of single-sex schools. Our political culture reinforces the taken-for-granted character of American coeducation. It implies that schools reflecting the variety of society exemplify what is best about democratic societies. Many people also take for granted that coeducation provides equality of educational opportunity for women. Like racial and ethnic minorities, women have long been excluded from the educational process. Thus, many people regard coeducation as a major milestone in the pursuit of gender equality. Single-sex education, by contrast, appears regressive.

Coeducation began not because of any firm belief in its sound educational effect, but rather because of financial constraints (Riordan, 1990). Historically, mixed-sex schools were economically more efficient. In America, boys and girls have usually attended the same public schools. This practice originated with the "common" school. Of course, at one time in our society only boys received an education. At other times the only education for either boys or girls was single-sex schooling, either public or private. Once mass and state-supported public education had been established, however, it was clearly the exception for boys and girls to attend separate schools. By the end of the nineteenth century, coeducation was all but universal in American elementary and secondary public schools (Bureau of Education,

An earlier version of this chapter was presented at a symposium entitled Single-Sex and Coeducational Schools and Classrooms: Implications for Public Schools at the annual meeting of the American Educational Research Association (April 12, 2000). Several sections of the chapter were published originally by The Brookings Institution Press (1999) and the American Association for University Women Educational Foundation (1998).

1883; Butler, 1910; Kolesnick, 1969). Although single-sex schooling remains as an option in private secondary schools, it declines with each decade (Lee and Marks, 1992).

Men's and women's colleges also became coeducational largely as a result of economic forces. This continues to be true today as enrollments dwindle in women's colleges. Thus, coeducation has evolved as a commonplace norm, not because of educational concerns as much as other forces. Women's colleges were established within a context of exclusion in the nineteenth century. And within this context, the underlying assumption, widely held both then and now, was that women's colleges were a temporary, short-term solution on the road to the eventual achievement of coeducation (Tidball et al., 1999).

This historical background has provided a protective halo around coeducation as an institution. Historically, this mode of school organization was never subjected to systematic research. Currently, this protective halo affects the research strategy and logic for comparing single-sex and mixed-sex schools. This "assumptive world" is so deeply ingrained that people often acknowledge the academic superiority of single-sex schools without realizing the aspersion implied for coeducation. A cursory sample of interviews will reveal that most people view single-sex schools as academically tougher, more rigorous, although perhaps less enjoyable than coeducational schools.

The salience of this problem was pointed up with the publication of the report, "How Schools Shortchange Women," commissioned by the American Association of University Women Educational Foundation (1992). (For an update of this study, see AAUW, 1998a.) This study examined more than one thousand publications about girls and education and concluded that bias against females remained widespread in coeducational schools, and was the cause of lasting damage to both educational achievement and self-development. Given these findings, one might think that the burden of proof would shift to coeducational schools, to demonstrate first that they are free of gender bias, and second, that they are at least as effective as single-sex schools in terms of achievement and gender equity. This would replace the current practice, which requires single-sex schools to show greater effectiveness.

A landmark study using expectation states theory was conducted by Elizabeth Cohen and her colleagues at Stanford University (1972). In Cohen's study, and several replications, it was found that simply placing African-American and white students in what appeared to be an equal-status problem-solving situation was *insufficient* to guarantee equal-status outcomes. In fact, the studies have documented and reported relatively extreme manifestations of racism; that is, white dominance in these types of situations. Moreover, in these studies, extensive efforts were made to alter the interaction pattern of white dominance with little success, except under one

condition in which the African-American students were literally allocated to a dominant role vis-à-vis the white students, who were allocated a submissive role. These results led Cohen and Roper to the conclusion that:

> The oft made assumption that one has only to join blacks and whites on an officially "equal" footing in the same building for "equal status" relations to develop is not sound. . . . Belief systems concerning race and other status characteristics are so powerful that they will likely reinforce rather than damage stereotypical beliefs. (1972, pp. 645, 657)

Research has shown that small task groups, such as those characterized by classrooms, exhibit status hierarchies where some group members are more active, influential, and powerful than others (Berger and Zelditch, 1985). These unequal status positions occur in groups in which participants have been carefully matched according to various irrelevant status characteristics such as race, gender, age, height, educational level, and occupational attainment. This process has been termed "status generalization" (Berger, Conner, and Fisck, 1974). Whenever members of a social group are performing lower on average than another group, as is the case regarding boys and girls on many educational outcome measures, sound research suggests that some form of prior "treatment" for the disadvantaged group is helpful before engaging in mixed-group interaction or learning (Cohen and Roper, 1972; Lockheed, 1985). Thus, it is incorrect to conclude that coeducational schooling is best, especially when there are existing inequalities.

If dominance and inequality emerge in groups of people who are otherwise equal in societal status, it is not surprising to learn that this occurs even more predictably when group members differ in status characteristics that are viewed as unequal. Thus, because gender and race have historically been defined as unequal, expectation states theory predicts that higher status actors will assume high status positions in classrooms. In the case of race, whites are more likely to be dominant. In the case of gender, it can go both ways depending on the particular skill being evaluated (Lee, Chen, and Smerdon, 1995; Riordan, 2000; U.S. Department of Education, 2000).

In addition, students typically hold unequal standing in the classroom based on previous academic performance. Students hold relatively clear expectations for each other as to academic competence at various tasks (Cohen, 1994, 2000; Rosenholtz, 1985; Tammivaara, 1982). Furthermore, the research demonstrates that group members who assume and are accorded high status in one area of expertise are expected to be more competent and influential in other nonrelated tasks as well, academic and nonacademic. What this means for classrooms is that some students who are seen as performing pecific tasks well, such as reading, are also accorded higher status in performing most other tasks, however unrelated they may be (Rosenholtz, 1985). Specifically, it means that females may be accorded

higher status on all academic skills based on their reading ability or that males might be accorded higher status based on their mathematical ability.

Within the context of these introductory remarks, I wish to address four key issues in the remainder of the chapter:

1. What does research in the private sector tell us about single-sex schooling?
2. Why are single-sex schools more effective than coeducational schools?
3. What are the implications of private school research for single-sex public schools?
4. What does all of this mean in terms of educational policy?

WHAT IS KNOWN REGARDING THE EFFECTS OF SINGLE-SEX SCHOOLS IN THE PRIVATE SECTOR?

Surprisingly, there are very few formal reviews of the relative effects of single-sex and coeducational schools or classrooms. Of course, all researchers have conducted their own literature reviews, but these are often incomplete. However, we can effectively draw upon the two exhaustive reviews of research. The first of these was conducted by Moore, Piper, and Schaefer for a U.S. Department of Education report. This review concluded that "there is sufficient evidence to support the proposition that single-sex schools may produce positive outcomes for young women, and that the countervailing evidence to reject that proposition is not sufficiently convincing" (1992, p. 42). In a more recent and fully exhaustive review, Mael concluded that "the predominance of research certainly shows a role for single-sex schools (as an option if not a norm)" (1998, p. 121). Despite the widespread attention given to the AAUW report, *Separated by Sex* (1998b), it is inappropriate to rely on it or the media stories that followed it as a definitive interpretation in light of the independent reviews of the research that are available.

I argue that the research is "exceedingly persuasive" in demonstrating that single-sex schools are effective in terms of providing both greater equality and greater achievement, especially for low-income and working-class students, most particularly for African-American and Hispanic-American boys *and* girls. I believe that the data are both consistent and persistent when several specifications are made. Note first that I exclude single-sex classes from my contention for exceedingly persuasive positive effects. My argument centers on the notion of an academic culture that is endemic to single-sex schools and cannot be produced in one or two classrooms within an otherwise coeducational school. Note that I draw these conclusions almost entirely from research that has been done on private rather than public schools. I begin with two general findings that rest on sound sociological and educational theory and research.

First, the academic and developmental consequences of attending one type of school versus another are typically insignificant for middle-class or

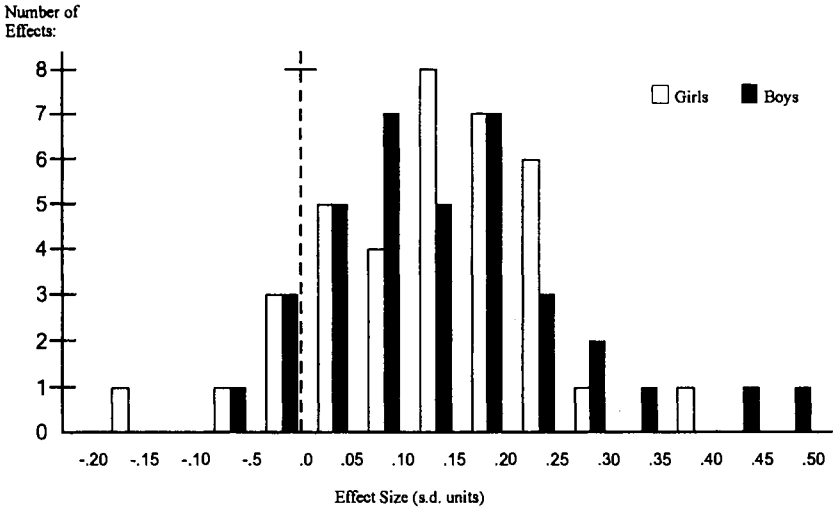
otherwise advantaged students. By contrast, the consequences are significant only for students who are historically or traditionally disadvantaged—minorities and/or lower-class and working-class youth (students at risk). Furthermore, these significant effects for at-risk students are small in comparison with the much larger effects of socioeconomic status and type of curriculum in a given school (for a full review of studies, see Riordan, 1997). This basic social science finding has been shown to be true since first identified in the famous Coleman Report (Coleman et al., 1966, see especially tables 3.221.1 and 3.221.2 on p. 229). Over the past three decades, the data persistently confirm this educational fact, which is fully consistent with the following points. We need to understand that all the hollering about types of schools (single-sex or otherwise) applies mostly to these students.

Second, single-sex schools work to improve student achievement (Lee, 1997; Lee and Bryk, 1986, 1989; Lee and Marks, 1990; Mael, 1998; Riordan, 1990, 1994a). They work for girls and boys, women and men, whites and nonwhites, *but* this effect is limited to students of lower socioeconomic status and/or students who are disadvantaged historically—females and racial/ethnic/religious minorities (both males and females). The major factor that conditions the strength of single-sex effects is social class, and since class and race are inextricably linked, the effects are also conditioned by race and sometimes by gender.

Specifically, disadvantaged students in single-sex schools, compared to their counterparts in coeducational schools, have been shown to have higher achievement outcomes on standardized tests of mathematics, reading, science, and civics. They show higher levels of leadership behavior in school, do more homework, take a stronger course load, and have higher educational expectations. They also manifest higher levels of environmental control, more favorable attitudes toward school, and less sex-role stereotyping. They acknowledge that their schools have higher levels of discipline and order and, not surprisingly, they have a less satisfactory social life than students in coeducational schools. In the long term, women who attended a girls' school continue to have higher test scores than women who attended coeducational schools (see preceeding citations). In drawing these conclusions, I do not include two studies by Marsh (1989, 1991), which included many variables such as student expectations, which I argue in the following are inappropriate to use as controls. Bryk, Lee, and Holland (1989) also rejected Marsh's analysis on this and other grounds. The preceeding citations are generally confined to American studies only.

It is important to note, however, that single-sex school effects are fairly robust even when social class or race is not partitioned. In their Catholic school study, Lee and Bryk (1989) analyzed the data by statistically controlling for social class, race, and other background characteristics and applied the results to students generally (assuming that there were no differences in

FIGURE 2.1
EFFECT SIZES OF SINGLE-SEX SCHOOLING (LEE AND BRYK 1989)



social class, race, or background variables). They found sixty-five of seventy-four separate dependent variable effects to be in favor of single-sex schools. Thirty of seventy-four effects obtained an effect size (ES) of .18 or higher, favoring single-sex schools, equally distributed among boys and girls and the mean effect size was .13, favoring single-sex schools. These results are depicted in figure 2.1.

The results for students attending women's colleges parallel and substantiate the secondary school results. They manifest higher levels of environmental control, greater satisfaction with school (although not social life), and higher occupational success despite the fact that there is no difference in educational achievement when compared to women who attended a coeducational college (Miller-Bernal, 2000; Riordan, 1990, 1994b). This latter finding strongly suggests that their schooling has been of a higher quality, because ultimately they have the same level of educational achievement as women attending coeducational schools. Amazingly, women who attend a women's college for even a single year and then transfer obtain a significant gain in occupational success (Riordan, 1994b).

However, these positive effects, are not universal. In a cross national study of four countries (Belgium, New Zealand, Thailand, and Japan), Baker, Riordan, and Schaub (1995) showed that single-sex schools do not have uniform and consistent effects. The effects appear to be limited to those national educational systems in which single-sex schools are relatively rare. We argue that the rarity of a school type may enhance single-sex effects

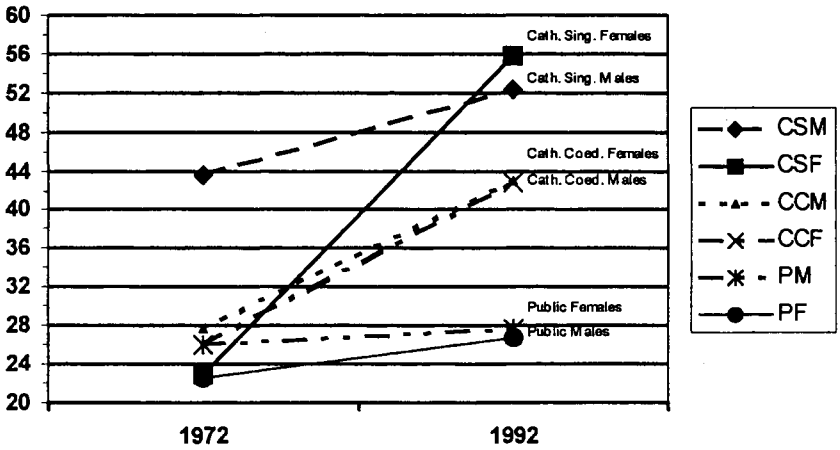
under certain conditions. When single-sex schools are rare in a country, the proacademic choice-making by parents and students results in a more selective student body that brings with it a heightened degree of academic demands. In turn, we believe that rare school types are better able to *supply* the quality of schooling *demanded* by these more selective students. Being less normative, these schools are likely to possess greater autonomy.

I wish to address another related matter that is quite important: How should we control for the distinct possibility of "selection bias" in studies of single-sex and mixed-sex schools? All researchers acknowledge that students attending each type of school vary in a number of ways, including socioeconomic status, previous academic achievement, family structure, and the like. And everyone agrees that we need to statistically control (and thereby equate) these preexisting characteristics if we are to sort out the effects of the school from the effect of the home. I part company from those who believe that the appropriate strategy is to control or equate exhaustively. If we do, we end up controlling on some of the very characteristics that I maintain drives the entire success of single-sex schools; making a proacademic choice. Hence, my view is that we need to control for factors that pertain to home background resources (e.g., socioeconomic status) and prior academic achievement (e.g., test scores). But not much else, and certainly not educational expectations or similar variables, which measure and may distinguish students in terms of the value they place on academics. (See figure 2.4 and the discussion.) In fact, having controlled for social class and academic achievement, students in single-sex schools may still have higher educational expectations than students in coeducational schools (Lee and Bryk, 1986; Lee and Marks, 1990). It is worth a moment to consider the irony of refusing to allow such students to attend a school that will help them to achieve their high educational expectations, especially when the students are desperate, poor, and powerless.

During the 1970s and 1980s, female students benefited from single-sex schools regardless of their social class position because they were historically and traditionally disadvantaged in school. Sometime during the 1980s, and clearly by 1990, this historical disadvantage for females in schools had been remediated (Riordan, 1998, 2000; U.S. Department of Education, 2000; Willingham and Cole, 1997). As a result of this transformation, I now argue that only females of low socioeconomic status are likely to show significant gains (along with boys) in single-sex schools.

Recent research (LePore and Warren, 1997) in the 1990s found that females in Catholic single-sex schools do not outperform their counterparts in coeducational schools. This is contrary to the results obtained by Bryk, Lee, and Holland (1993) and Riordan (1990) for Catholic school students in the 1970s and 1980s. This now seems completely consistent because students in these schools have become increasingly affluent from 1980 to 1992. Figure 2.2 shows that Catholic single-sex schools for girls have undergone a

FIGURE 2.2
SOCIOECONOMIC COMPOSITION (PERCENT HIGHEST QUARTILES) OF CATHOLIC AND PUBLIC SCHOOLS)



metamorphosis regarding the socioeconomic composition of their student bodies. In 1972, students attending Catholic single-sex schools for girls were approximately equal to public school students in their socioeconomic background. From 1972 to 1992, their socioeconomic status underwent a meteoritic rise. (See Baker and Riordan, 1998, for an elaboration on this phenomenon.) Given the propositions in the preceding, no school effects would be predicted under these demographic conditions.

Lee (1997) also found no differences in educational achievement between students in single-sex and mixed-sex elite independent schools. Thus, it appears that from 1972 to 1982 (and probably earlier) girls in Catholic single-sex schools outperformed girls in Catholic coeducational schools, and their achievements also closed the gender gap in comparison with coeducational males. In the late 1980s and the 1990s, however, the single-sex advantage for girls in "elite" Catholic schools was greatly diminished. Girls in coeducational schools increased their achievement curve surpassing their counterparts in single-sex schools (Riordan, 1998). Thus, we need to note very carefully that the findings from the 1970s to the early 1980s cannot and should not be generalized straightforwardly to the 1990s and beyond. As Catholic single-sex schools received positive media and academic attention in the 1980s, students attending these schools in the 1990s increasingly came from more affluent homes (Baker and Riordan, 1998). And for this reason, the single-sex schooling effects in Catholic schools were attenuated as per the preceding discussion.

However, what is bad for the goose is not always bad for the gander. This troubling news for Catholic schools is not a problem for the potential of single-sex schools in public schools. If single-sex schools are established to serve

disadvantaged students, there are always ample numbers of socioeconomically disadvantaged, at-risk youth available in the public sector. Single-sex schools will be effective in the public sector so long as they are earmarked for disadvantaged students. On the other hand, if public schools were to establish single-sex schools and then allow more advantaged students to attend, the single-sex school effect would dissipate. To repeat (perhaps ad nauseam): Single-sex schools do not greatly influence the academic achievement of affluent or advantaged students, but they do for poor disadvantaged students.

It is important to emphasize that white middle-class (or affluent) boys and girls do not suffer any loss by attending a single-sex school. (They are not better off in coeducational schools.) At worse, they realize a neutral outcome, which is the general school effect finding for this subgroup across any two types of schools, as noted. Moreover, there exists the possibility that they do acquire small gains that are undetectable.

WHY ARE SINGLE-SEX SCHOOLS MORE EFFECTIVE THAN COEDUCATIONAL SCHOOLS?

There are at least a dozen theoretical rationales that provide support for the contention that single-sex schools are more effective academically and developmentally than mixed-sex schools, especially for minorities and at-risk students. Each of these rationales is less applicable when the schools and the students are mostly from high socioeconomic home backgrounds, and/or if single-sex schools are normative in the society or a subculture. Note carefully that all of these conceptual rationales are derived and/or linked to Expectation States Theory, as described in the Introduction to this chapter. These rationales are depicted in figure 2.3.

The last four items on this list (9 through 12) draw on the work of Valerie Lee and colleagues (1997), who identified several structural and organizational features of schools that generate increased academic achievement as well as increased equity among the students (a decrease in the gap between racial and social class groups).

Single-sex schools provide more successful same-sex teacher and student role models, more leadership opportunities, greater order and discipline, fewer social distractions to academic matters, and the choice of a single-sex school is a proacademic choice. (For an elaboration of rationales 1 through 8, see Riordan, 1990, 1994.) Females also gain advantages because of significant reductions in gender bias in both teaching and peer interaction, and via access to the entire curriculum; the reverse may be true for African-American males. The schools are typically smaller and provide the academic climate features (9 through 12) noted by Lee (1997). Lee also argues (1997, p. 156) that these organizational differences explain the greater effectiveness of single-sex schools. Obviously I agree. But these explanatory variables are set into motion because of an independent vari-

FIGURE 2.3
THEORETICAL RATIONALES FOR POSITIVE EFFECTS OF SINGLE-SEX SCHOOLS

1. The diminished strength of youth culture values
2. A greater degree of order and control
3. The provision of more successful role models
4. A reduction of sex differences in curriculum and opportunities
5. A reduction of sex bias in teacher-student interaction
6. A reduction of sex stereotypes in peer interaction
7. The provision of a greater number of leadership opportunities
8. *Single-gender schools require a proacademic parent/student choice*
9. Smaller school size
10. A core curriculum emphasizing academic subjects taken by all students (organization of the curriculum)
11. Positive relationships among teachers, parents, and students that lead to a shared value community with an emphasis on academics and equity (school social organization)
12. Active and constructivist teaching and learning (organization of instruction)

able, which is "school type" (single-sex or coeducational). You cannot just assume that the explanatory variables can be easily operationalized by well-intended educational policymakers and/or administrators.

Single-sex schools are places where students go to learn; not to play, not to hassle teachers and other students, and not primarily to meet their friends and have fun. Aside from affluent middle-class communities and private and alternative schools, coeducational schools are not all about academics. This has been noted often with alarm by respected and distinguished investigators across a variety of disciplines using a variety of methodologies (Devine, 1996; Goodlad, 1984; Powell, Farrar, and Cohen, 1985; Sedlack, Wheeler, Pullin, and Cusick, 1986; Steinberg, Brown, and Dornbusch, 1996; Willis, 1981).

WHAT ARE THE IMPLICATIONS OF PRIVATE SCHOOL RESEARCH FOR SINGLE-SEX PUBLIC SCHOOLS?

Over the course of time, I have come to see the proacademic choice that is made by parents and students as the key explanatory variable. This choice sets

into motion a set of relationships among teachers, parents, and students that emphasize academics and deemphasize youth culture values, which as I have suggested, dominate coeducational schools. I want to be absolutely clear about this point. The choice is not at all about sex and romance nor is it about exclusion. It is about the rejection of antiacademic values that predominates in our culture and schools. Moreover, this rejection comes from the bottom up rather than the top down. In my view, it drives all that follows.

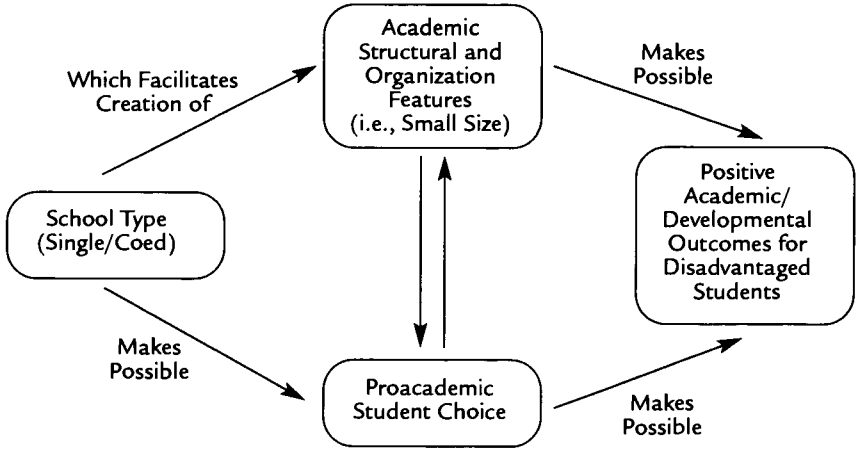
Single-sex schools, of course, provide a set of structural norms conducive to academic learning, as shown in figure 2.3. This proacademic single-sex school environment operates in concert and harmony with the choice-making process made by students who attend single-sex schools. In this regard, it is entirely different from a set of structures or programs that are put into place by educators. In single-sex schools, the academic environment is normative in a true sociological sense. It is a set of rules established by the subjective reality (definitions) of participants that takes on an objective reality as a set of social structural norms (Berger and Luckman, 1967). This idea is similar to that proposed by Bryk, Lee, and Holland (1993) of a "voluntary community" for public school policy, which would resemble Catholic schools in every respect except for religion.

Figure 2.4 depicts this reciprocal relationship between organizational structures and student affirmations of those structures. Moreover, as I have indicated, these academic definitions of school contradict the nonacademic definitions that students otherwise bring to school and that come to constitute a youth culture. In effect, single-sex schools mitigate the single largest obstacle that stands in the way of effective and equitable schooling by using a fundamental sociological principle about how real social structures are created. Structures that are imposed and that contradict deeply cherished beliefs (regardless of how wrong-headed and problematic) will be rejected out of hand by any group with substantial power in numbers, such as students in schools.

By contrast, we can consider some alternatives that have been suggested for creating a proacademic environment in coeducational schools or schools generally. Specifically, we should consider the previously mentioned organizational features of effective schools from Lee (1997). In this 1995 study for AAUW, she reported several cautionary findings regarding the effect of this set of school climate variables on the gender gap. For example, the same set of school level variables emphasizing academics (as in numbers 9 through 12 in figure 2.3) increased mathematics, science, social studies, and reading achievement, but these same variables often did not reduce the gender gap favoring either males or females in these subject area tests.

In some cases, these positive school level variables actually made matters worse—greater parental involvement increased the gender gap, favoring males in mathematics achievement, and a whole set of positive academic school

FIGURE 2.4
A THEORETICAL MODEL OF SINGLE-SEX SCHOOL TYPE EFFECTS



variables (e.g., positive student-teacher relations and an academic learning environment) increased the gender gap in social studies. In fact, aside from decreasing the gender gap in school engagement (which favors females), the school variables either had no effect or negative effects on the gender gap. Lee, Chen, and Smerdon (1995) demonstrate convincingly that a whole range of positive school climate variables will increase student achievement and engagement with school, but these same variables have either null or negative effects on increasing gender equity for these same measures.

The challenge of effective and equitable schooling in the next century is to overcome the resistance and recalcitrance of youth cultures in and out of school (Devine, 1996; Goodlad, 1984; Steinberg, Brown, and Dornbusch, 1996; Willis, 1981). This is not a new problem and undoubtedly predates the modern school. However, the intensity and complexity of the problem are new and represent the most important obstacles in schools today. It is not just about youthful anti-intellectualism, antisocial behavior, athletics and rock concerts, sexual harassment, heterosexual attraction and subsequent distraction, and the contentiousness that comes from increased diversity in the schools; it is about all these things and more.

How do schools get to be small or how do they develop communal relationships, authentic instruction, and/or a core academic curriculum? How can schools provide more successful academic role models and reduce the strength of antiacademic youth culture values? In essence, this requires reconstruction of schools. It requires a proacademic choice on the part of administrators, teachers, parents, and students (see figure 2.4). Of these, I

argue that students are the key stakeholders. In contrast to private schools, public schools often serve poor, disadvantaged, lower-class and working-class youth who are often racially stigmatized as well. These are the children and young adults who can benefit most from single-sex schools.

SINGLE-SEX PUBLIC SCHOOLS

One of the interesting by-products of the questionable legal status of single-sex schools and classes has been that it has provided a backdrop for *Profiles in Courage* among public school principals (borrowing the term from John Kennedy's book by that name). During the 1990s, in various public schools across the country, principals were asked (or in some cases they did the asking) to allow teachers to establish single-sex classes. In view of the questionable legal status of single-sex schools and/or classes (see chapter 4 of this volume and Salomone, 1999), most principals were reluctant to venture away from anything but business as usual (carrying out the bureaucratic ethos). Not many were sufficiently courageous as to take on single-sex schooling. Yet, as a result of the problems in coeducational schools for both boys and girls, and the potential offered by single-sex schools (as per the preceding discussion), a variety of efforts were made throughout the 1990s to establish single-sex public schools for disadvantaged students. Some of these experiments were successful, whereas others were stymied by opponents of single-sex schools or other factors described in the following. In the examples that follow, the reader should note that only the California single-sex school experiment and the Young Women's Leadership School in New York City have been subjected to systematic and independent evaluations.

Several Unsuccessful Examples

In 1989, the principal of Martin Luther King Jr. Elementary School in Rochester, New York, heeding the advice of several of her teachers, established a set of single-sex classrooms for both males and females. Students (and their parents) could choose between a single-sex or coeducational classroom in each grade. From the outset, her administrative decision was viewed with criticism from the central office, even though she had full and enthusiastic teacher, parental, student, and community support.

At the time (1989), the school had been identified as the thirteenth worst school in the state of New York as judged by performance standards. It is an inner city school attended predominantly by very poor Hispanic-American and African-American students. During the years 1989 to 1993, school records indicate that the students in the single-sex classrooms showed greater NCE gains on the reading and mathematics tests, higher attendance rates, lower suspension rates, and higher parental participation rates than students in the coeducational classes. Perhaps most remarkably, in one all-male class of African-American and Hispanic-American students, twenty-one of twenty-

four *fathers* attended monthly parent-teacher meetings on a regular basis during the time that the program was intact (Riordan, 1993).

During the course of the 1989 to 1993 time period, Anita Boggs received no praise nor support for her work. Rather, she and her staff were pressured by the American Civil Liberties Union (ACLU) and National Organization for Women (NOW) to justify this organizational form of schooling. In 1993, she was abruptly transferred to another school. Single-sex schooling was shut down at Martin Luther King Jr. Elementary School. However, during 1989 to 1993, Boggs increased achievement and equality, she energized a group of teachers by simply supporting and organizing and making possible their pedagogical desires, and she brought forth social capital from the home by the involvement of African-American and Hispanic-American fathers and mothers in the schooling of their children. She utilized educational research to organize her school and for this she was banished to the suburbs where her efforts were not even needed.

Similar examples occurred throughout the 1990s. In 1991, Detroit school officials proposed three all-male academies for African-American boys that were ruled in violation of Title IX; in 1993, school officials in Ventura, California, attempted for several years to experiment with single-sex classes but they too were destroyed by a set of legal challenges, and in 1994 again a courageous principal attempted to establish single-sex classes (see Richardson, 1995; Walsh, 1996). Anthony Palone, Principal of Myrtle Avenue School in Irvington, New Jersey, established single-sex classes for several years. Students flourished and parents were satisfied until the same antisingle-sex school forces that had appeared in other cities moved into action in Irvington. Like Anita Boggs, Anthony Palone was shortly forced to abandon his efforts (Walsh, 1996).

Hubbard and Datnow (chapter 7 of this volume) describe a large experimental effort in the state of California to open single-sex schools for both boys and girls. Here I will only note that Governor Pete Wilson established these schools in 1997 by offering grants as incentives to districts to open schools for both boys and girls. In 1997, money was available for twenty schools (ten for boys and ten for girls) to be opened across the state. As of fall 2000, only one set of these schools (one boys' and one girls' school) remains in operation and each has a different story to tell, as you will discover in chapter 7.

Many of the schools in the California single-gender experiment violated a basic assumption of key theoretical rationales that have been identified in the preceding: namely, that principals and teachers in a single-sex school must believe in the basic philosophy of this kind of school organization, and not simply be in it for the grant money provided to the school. The downfall of the California single-sex school experiment was not pressure by political forces against single-sex schooling, but rather the result of a failure of the experiment itself to assure that principals and teachers minimally embraced the proacademic single-sex school concept. Hubbard and Datnow suggest

that these schools could have been sustainable and successful if some of the fundamental components were in place.

Several Successful Examples

Some schools have been successful in warding off the opponents of single-sex schools. They have obtained the services of principals and teachers who fully embrace the potential value of single-sex schooling (the major flaw in the California single-sex school experiment). In 1995, philanthropist and former journalist Ann Rubenstein-Tish, together with her husband Andrew Tish, initiated plans to open what has come to be called the Young Women's Leadership School in New York City. Tish secured the help of a legal team as well as the consulting services of this author and opened the school in fall 1996 as a regular public (not a charter) school in Community School District 4 of New York City. The school was designed to provide both a middle school (grades seven and eight) and upper school (grades nine through twelve) with a demanding college preparatory course of study. Funding for the school is the same as any of the other schools in District 4. Priority for admission to the school is given to students residing in District 4, which is a predominantly poor African-American and Hispanic-American East Harlem community in New York City.

Currently, the school serves about 310 students in grades seven to twelve. The school curriculum focuses on mathematics, science, technology, humanities, and leadership. The student population is diverse: 59 percent are Hispanic-American, 40 percent are African-American, and 67 percent fall below the poverty line, therefore qualifying for a free or reduced-price school lunch. Test scores for reading and mathematics are 30 percent higher than average for New York City coeducational schools. Although initially "only 40 percent [of the students] could read and do math at grade level, by the end of the year, 70 percent could read at or above grade level and 65 percent could meet the standard in math" (*New York Post,* 1997). Remarkably, 100 percent of this year's first graduating class are bound for college.

Following the New York City model, a group of prominent professional women in business, law, the arts, and philanthropy formed an advisory council and developed plans to open a school for girls in Chicago. In fall 2000, the Young Women's Leadership Charter School of Chicago opened its doors to 150 sixth-grade and ninth-grade students for girls only. The school focuses on math, science, technology, and leadership for girls and is located on the campus of the Illinois Institute of Technology. Students are selected by a lottery, and in the first draw 80 percent of the girls qualified for free or reduced-price lunch and 73 percent were African American. At full enrollment, the school will house 525 girls in grades six to twelve. Students are required to be residents of Chicago and in good academic standing.

Finally, brief mention should be made of several other public single-sex schools currently in operation. The Philadelphia School for Girls has existed

since 1848, and although it was ordered to admit boys in a 1983 court decision, it remains today as a public all-girl magnet school by default. The school serves fifteen hundred students who come from predominantly poor families. Admission standards are rigorous, and the school was cited for excellence by the U.S. Department of Education in 1987. The school has a 98 percent college acceptance rate.

Western High School in Baltimore, Maryland, was founded in 1844 and remains today as a thriving all-girls' school. The school enrolls 1,250 students, and over 75 percent of these girls attend four-year colleges. The school is 80 percent African-American, and 38 percent of the students qualify for a free or reduced-price lunch. In the 1998 to 1999 academic year, 96 percent of the eleventh-grade students passed the Maryland state exams in reading, mathematics, writing, and citizenship.

In Hartford, Connecticut, the Lewis Fox Middle School houses the Benjamin E. Mays Institute for Boys and its sister program, the Mary M. Bethune Institute for Girls. Approximately eight hundred students attend this school, which is physically divided into separate clusters for boys and girls as well as for mixed-sex classes (schools within the school). About two hundred boys and girls attend classes separated by sex. The institutes share classes for physical education, but all other classes are conducted in separate areas as well as the lunch period. This school was established in 1996 and serves predominantly poor students (89 percent qualify for a free or reduced-price lunch). According to Judith Glover (2001), a school guidance counselor, students in the single-sex classes always excel in the Hartford citywide testing program in comparison with students in mixed-sex classes.

And finally, the New York State Board of Regents has approved a proposal to open two single-sex charter schools. The Brighter Choice Charter School for Boys and the Brighter Choice Charter School for Girls will open in fall 2002 in Albany, New York. Both schools target economically disadvantaged at-risk youth (largely African-American and Hispanic-American), which are precisely the groups most likely to benefit from single-sex schools. In fact, the school will admit only students who qualify for a federal free lunch. It even comes with a guarantee. Any student who is there for three years is guaranteed to pass the state exams in math, reading, and science. Those who do not will be given a private scholarship to any other public or private school (*Wall Street Journal*, 2000).

It is interesting to note that three strategies have been used by these schools to defend against legal attacks from opponents. In New York, Chicago, and Albany, the schools utilized the services of legal consultants and social scientists to develop the school charters. In the California schools, the entire initiative was made available to both boys and girls with exactly equal resources for each school, down to the number of pencils and desks provided. In the case of the Philadelphia and Baltimore schools, the ACLU

and other opponent organizations have been unable to find a boy willing to attend the school; moreover, the mayor of Baltimore has literally challenged the ACLU to take the schools to court. Because the school has enjoyed great success and is extremely popular with the citizenry of the city, local officials simply rely on community support to legitimatize the school.

EDUCATIONAL RESEARCH, POLITICS, AND POLICY

Data alone will not save single-sex schools; nor will data alone be sufficient to change the persistent problems that exist for both boys and girls in coeducational schools. This is not to say that research is not important, but only that ultimately the politics of education dictates the future of single-sex schools. It is useful to contrast educational research and educational policy about single-sex schools and the use of uniforms in schools. There exists a substantial degree of empirical research, which contrasts the relative effects of single-sex and mixed-sex schooling. Moreover, that base is both theoretical and empirical. And, although it is not entirely consistent, there is a preponderance of evidence supporting the positive value of single-sex education (under the conditions I have noted). Now, regarding the relative effects of wearing or not wearing uniforms in schools, we know next to nothing. There are all sorts of anecdotal reports and small sample studies, but there are very little hard data, although there is some good theory.

It is instructive to observe how easy it can be for an educational practice such as requiring uniforms to become educational policy without any educational research. Just a short time ago (February 24, 1995), President Clinton instructed the U.S. Department of Education to distribute manuals to all the school districts in the nation advising them how they can legally enforce a policy of uniforms in public schools. With this and several other speeches, the movement toward a national policy of school uniforms is racing ahead full speed, despite the fact that no one knows whether this educational policy will produce any positive educational results by and of itself, including the reduction of violence in the schools, which is the major claim of its proponents.

If you think about this for a moment, you can actually experience what it must have been like when the movement toward coeducation began to take hold about a century ago. In fact, coeducation (as a form of school organization) was institutionalized with little regard for educational research or educational or sociological theory. Just as coeducation was (and continues to be) politically correct, so too are school uniforms. Thus, political correctness can and often does override educational research and sociological theory in the formation of educational policy. Rosemary Salomone (1996) identified this as the perils of ideology.

Single-sex schools are politically incorrect; they are downright politically threatening to many people, and many of these people are in fact educational researchers, policymakers, and special interest stakeholder groups

such as the AAUW Educational Foundation. This is not a very inspiring thought, but it is important to realize that this is the nature of what we are working with. It is not just about which type of school works best. It is about what most people think is politically expedient. In the long haul, however, I submit that educational politics may offer a deceiving foundation for educational policy in the absence of educational research and theory.

We desperately need more research on single-sex schools and less attention to educational politics and the formation of educational policy. One of the central problems is that single-sex schools cannot remain in place sufficiently long to develop a systematic long-term plan of action and a viable set of single-sex organizational norms, as I have outlined in this chapter. In all of the public school examples described herein, the period of existence for the schools has been too short to merit a valid evaluation. However, beyond the central question of which type of school works best in terms of achievement and gender equity, there are other questions that researchers have not even attempted to address.

For example, no one in the world has a clue as to the relative effects of single-sex and coeducational schools on identity formation (which is not at all the same as self-esteem). However, we do know from the work of Maccoby and Jacklin (1987; see also, Jacklin and Maccoby, 1978) that young children (two years of age and older) manifest a strong proclivity and greater compatibility in same-sex pairs, that girls exhibit more assertive behavior in same-sex groups, and that these facts remain true despite the efforts of adults to structure mixed-sex groups in such a way as to obtain equal status interaction (Lockheed, 1985; Lockheed and Harris, 1984).

Some people still think the gender gap is a one-way street, with males enjoying all the advantages. Beyond the schoolhouse door, this may still be true; but in elementary and secondary schools, it is not true and perhaps never was. Thus, issues of equity in coeducational schools can no longer be jump started by the phrase "when we shortchange girls, we shortchange America." Recent reports have now confirmed that both boys *and* girls are on the unfavorable side of the gender gap in education and developmental matters (Hedges and Nowell, 1995; Lee, Chen, and Smerdon, 1995; Linn and Hyde, 1989; Nowell, 1997; Riordan, 1998, 2000; U.S. Department of Education, 2000; Willingham and Cole, 1997). Lee, Chen, and Smerdon (1995) suggest that a more balanced approach to the study of gender equity is in order. What is becoming increasingly clear is that coeducational schools will have to provide special attention to boys in reading and writing and engagement, and this is going to complicate the entire equation for creating equity in coeducational schools.

CONCLUSIONS

Single-sex schools remain an effective form of school organization for disadvantaged students. The schools provide a structure that is conducive to learning, as I have detailed in this chapter. In selecting a single-sex school

with its structure in place, students reject the antiacademic norms that permeate most public coeducational schools attended by at-risk youth. They make a proacademic choice. I have no illusions that students do this gleefully and go off to school dancing in the streets. Of course, for most students the choice is made by parents for their children. The point is this: An effective school requires a minimal level of compliance (even if it is begrudging) on the part of the students to the academic norms of the school.

Specifically, in order for a school to provide high levels of achievement and equity for students, it should provide a challenging academic program to all students; the teaching style should be active and constructive; the relationships among teachers, administrators, parents, and students should be communal; and the school should be small. Youth culture and antiacademic values should be minimized, order and control should prevail, successful student role models should be abundant, sex (and race) bias in peer and student-teacher interaction should be nonexistent, and leadership and educational opportunities should be free of sex (and race) bias.

One can try to set this up by instituting rules and regulations and structures and norms from the desks of either superintendents and/or principals. In lieu of any other alternative, this is how it will be done. But institutions simply do not work very well that way, especially when the clients are youth who understandably and justifiably want a stake in the creation of social organizations that ultimately control their behavior. Single-sex schools provide an avenue for students to make a proacademic choice, thereby affirming their intrinsic agreement to work in the kind of environment we identify as effective and equitable. Single-sex schools should not be expected to correct the gender equity problems that exist in society and in coeducational schools. Nor should anyone fear that their existence would detract in any way from efforts that should be made to provide greater gender equity in public coeducational schools.

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