For many years, gender equity has pertained primarily to improving education and career opportunities for females. Recent studies, however, provide evidence that boys no longer hold an advantage. Based on extensive analysis of data from the National Longitudinal Study, the High School & Beyond, and the National Education Longitudinal Study, it was concluded that there is no evidence for a one-way gender gap favoring males beyond 1992 in public secondary schools. This digest presents a brief overview of recent research on trends in gender differences in both the K-12 and postsecondary levels of education and offers suggestions for actions that counselors and counselor educators can take to help ensure that all students' educational and developmental needs are met. (GCP)
Are Boys Falling Behind in Academics?
Part I

by

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Introduction

For many years, gender equity has pertained primarily to improving education and career opportunities for females. In a highly controversial report published by the American Association of University Women, How Schools Shortchange Girls (AAUW, 1992), researchers presented evidence that girls were not receiving the same quality or even quantity of education as boys.

Recent studies, however, provide evidence that boys no longer hold the advantage. As Diane Ravitch, former Director of Education Research and Improvement, stated in Sommers (2000, p. 22), “The AAUW report [How Schools Shortchange Girls] was just completely wrong. What was so bizarre is that it came out right at the time that girls had just overtaken boys in almost every area. It might have been the right story 20 years earlier, but coming out when it did was like calling a wedding a funeral... There were all these special programs put in place for girls, and no one paid any attention to boys.”

Based on an extensive analysis of data from the National Longitudinal Study (NLS), the High School & Beyond (HSB), and the National Education Longitudinal Study (NELS), Riordan (1998) concluded there is no evidence for a one-way gender gap favoring males beyond 1992 in public secondary schools. As of 1992, females possess a significant advantage on most central educational outcome indicators. Boys, rather than girls, are now on the short end of the gender gap in many secondary school outcomes.

This digest will present a brief overview of recent research on trends in gender differences at both the K-12 and postsecondary levels of education and offer suggestions for actions that counselors and counselor educators can take to help ensure that all students' educational and developmental needs are met.

Gender Differences at the K-12 Level

Academic Performance

Kleinfield (1998) argues that the findings reported by the AAUW were based on a selective review of the research and that findings contrary to the report’s message were suppressed. She reports that, from grade school through college, females currently receive higher grades and obtain higher class ranks. They also receive more honors in every field except science and sports.

“On standardized achievement tests, females typically surpass males in reading ability, reading achievement, and certain other verbal skills while males surpass females in science and mathematics. In the general population of males and females, however, sex differences in achievement tests are typically small—except for the big female advantage in writing” (Kleinfield, 1998, p. 12).

Sommers (2000, pp. 24-25) reports that, “The representation of American girls as apprehensive and academically diminished is not true to the facts. Girls, allegedly so timorous and lacking in confidence, now outnumber boys in student government, in honor societies, on school newspapers, and even in debating clubs. In sports the boys still lead, and women’s groups are targeting the sports gap with a vengeance... Girls read more books. They outperform males on tests of artistic and musical ability. More girls than boys study abroad...”

“Conversely, more boys than girls are suspended from school. More are held back and more drop out. Boys are three times as likely as girls to be enrolled in special education programs and four times as likely to be diagnosed with ADHD” (Sommers, p. 25). “The overrepresentation of males in special education classes and in virtually every other category of emotional, behavioral, or neurological impairment is undisputed” (Kleinfield, pp.20-21).

Given the above information, a logical question that arises is, “If differences in the performance of males and females in the general population are small, why do more males end up at the top in science and mathematics—and, at the same time, more males appear at the bottom of the barrel in schools, labeled as impaired and assigned to special education classes?” According to Kleinfield (1998, p. 20) the answer to this question is, “...greater variability among males means that more academic stars, those at the extreme right end of the normal curve, are apt to be males. But this variability also means that more males will be at the extreme left of the normal curve, academic duds.” The basic point, however, is that “The greater number of males at the top in fields like mathematics and science does not necessarily mean that the schools are shortchanging girls. The greater number of males at the bottom in classes for children with learning disabilities does mean that the schools are shortchanging boys. Males are more variable on many physical and neurological dimensions” (Kleinfield, 1998, p.23).

Course Enrollment

In the 1980’s, high school girls were far less likely than boys to take science and mathematics classes (Bac & Smith, 1997). As Kleinfield (1998, p. 27) points out, “for women to have opportunities for high level achievement in science and mathematics, they need to take demanding courses in high school...females now take as many high school classes in mathematics and science as males do. In advanced placement classes in mathematics and science, the gender gap is narrowing.”

The following table illustrates how females have caught up with or surpassed males in high school course enrollment in mathematics and science (from a sample of 1994 high school graduates).

<table>
<thead>
<tr>
<th>High School Courses</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algebra I</td>
<td>65%</td>
<td>68%</td>
</tr>
<tr>
<td>Geometry</td>
<td>68%</td>
<td>72%</td>
</tr>
<tr>
<td>Algebra II</td>
<td>55%</td>
<td>62%</td>
</tr>
<tr>
<td>Trigonometry</td>
<td>17%</td>
<td>17%</td>
</tr>
<tr>
<td>Analysis/pre-calculus</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>Calculus</td>
<td>9%</td>
<td>9%</td>
</tr>
<tr>
<td>Biology</td>
<td>92%</td>
<td>93%</td>
</tr>
<tr>
<td>Chemistry</td>
<td>53%</td>
<td>59%</td>
</tr>
<tr>
<td>Physics</td>
<td>27%</td>
<td>22%</td>
</tr>
</tbody>
</table>

From Kleinfield (1998, p. 28)

Classroom Participation

One of the more controversial issues addressed by the AAUW (1992) report was based on “call out” research, i.e., a study of the extent to which boys vs. girls call out answers to questions which
teachers pose to the class. The report concluded that boys called out answers more frequently than girls. Further, they reported that teachers' typical reaction to boys was to listen to the comment, while girls were usually told, "Please raise your hand if you want to speak." (p. 68).

Both Sommers (1994) and Kleinfeld (1996) report that "the research on which these dramatic findings were based has strangely disappeared" (Kleinfeld, 1998, p. 41). Kleinfeld goes on to explain that, aside from this, many studies of classroom interaction are flawed in that: 1) They assume that teacher attention is linked to achievement; 2) There is often a lack of distinction between academic questions and reprimands in defining getting attention from the teacher; and 3) because such studies are expensive, it is difficult to get a large, representative sample of students, thus many studies have been conducted in classrooms where females are suspected to be at a disadvantage (e.g., high school math and science, law school).

Gender Differences at the Postsecondary Level

A 1999 U.S. News and World Report article reported that, at an increasing rate, college-student populations in all types of postsecondary institutions have higher proportions of women, while young men are tending toward lucrative early employment and economic independence. The article points out that the process begins in high school where girls are concentrating on college preparation and boys are being recruited by high-technology companies.

Kleinfeld (1998, p. 29) also emphasized that at the postsecondary level "...a gender gap exists and is increasing. But this gender gap clearly favors females. Women have become the majority of college students – especially in the African-American population – and women earn the majority of bachelor’s and master’s degrees." The following table illustrates this trend.

Proportion of Women Enrolled in College

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>47%</td>
<td>56%</td>
<td>55%</td>
</tr>
<tr>
<td>African-American</td>
<td>55%</td>
<td>61%</td>
<td>62%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>45%</td>
<td>55%</td>
<td>56%</td>
</tr>
<tr>
<td>American Indian</td>
<td>51%</td>
<td>58%</td>
<td>58%</td>
</tr>
<tr>
<td>Asian</td>
<td>45%</td>
<td>48%</td>
<td>49%</td>
</tr>
<tr>
<td>All</td>
<td>47%</td>
<td>55%</td>
<td>56%</td>
</tr>
</tbody>
</table>

From Chronicle of Higher Education Almanac Issue (1997, p.18)

In terms of advanced college degrees, more women than men are graduating from college and going on to get master’s degrees (Chronicle of Higher Education Almanac Issue, 1997). "In 1995,...women won 55 percent of the bachelor’s degree and 53 percent of the master’s degrees. Among African-Americans, the gender gap in favor of females is far larger. In 1995, African-American men won only 36 percent of bachelor’s degrees and only 34 percent of master’s degrees. The shortchanged group is not female – it is African-American males" (Kleinfeld, 1998, p. 31).

Recommendations for Counselors and Counselor Educators

To address the emerging gender equity gap that threatens the academic achievement of boys, counselors and counselor educators should:

1) Expand the sources of literature reviews and critically examine all ostensibly research claims.
2) Assign a priority to preparing counselors to respond to the developmental needs of boys.
3) Provide more mentoring male role models and activity learning opportunities in classroom and counseling activities.
4) Take a more public stand against biased research and incorrectly interpreted findings regarding the needs of both boys and girls.
5) Speak up for the most at risk of all sub-populations – adolescent African American males.

Part II of this digest will further expand the ways in which counselors and counselor educators can address boys’ academic needs.

References


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