High School Sports & Educational Benefits: What We Really Know and Don’t Know

LA84 Foundation

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Scientific Method
The Scientific Method

1. Ask a question
2. Do background research
3. Construct a hypothesis
4. Test your hypothesis by doing an experiment
5. Analyze your data and draw a conclusion
6. Report your results (Was your hypothesis correct?)
A Tale of Two Hypotheses
Women’s Sports Foundation Report: Minorities in Sport, 1989

Most comprehensive study ever done.

Longitudinal panel design, nationwide sample

Followed representative sample of students from sophomore year through 4 years after high school.

Analyzed data from the U.S. Dept of Education’s High School & Beyond study (generated by the National Center for Education Statistics).

**SAMPLING DESIGN**

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomore Year, 1980</td>
<td>30,000</td>
</tr>
<tr>
<td>Senior Year, 1982</td>
<td>25,500</td>
</tr>
<tr>
<td>Two Years Beyond High School,</td>
<td>14,825</td>
</tr>
<tr>
<td>Four Years Beyond High School</td>
<td>13,481</td>
</tr>
</tbody>
</table>
Key Findings: The “dumb jock” stereotype is a myth.

African-American and Hispanic athletes scored higher on standardized reading, vocabulary, and mathematics tests than their non-athletic peers.

Minority athletes reported getting better grades than their non-athletic peers.
Some Nuanced Findings

• **Higher grades for athletes**—rural Hispanic females, suburban Black males, and rural White males....**BUT** not urban black males.

• **Lower drop-out rates for athletes**—rural Hispanic females, suburban Hispanic females, rural Black males, suburban & rural White females as well as males **BUT not** for urban Black males and females.
College Attendance

1. **No differences** between former Black athletes and non-athletes (both male & female).

2. Hispanic female athletes in RURAL schools 5-times more likely to attend college.

3. Hispanic male athletes in URBAN schools were twice as likely to go to college.
Variables Associated with Educational Outcomes among High School Athletes

- Gender
- Race and Ethnicity
- Family Socioeconomic Status
- Type of Community
- Level of School Resources
USTA Serves Key Educational Findings

Compared to non-athletes and participants in the top nine high school sports, adolescent tennis players:

1. devoted more time to homework each week
2. reported an average grade of “A” in courses,
3. said they will “definitely” attend and graduate from a 4-year university.
Table 34: Percentage of Students Who Indicated an Average Grade of “A” in School, by Type of Sports and Family Socioeconomic Level

<table>
<thead>
<tr>
<th></th>
<th>Low SES</th>
<th>Middle SES</th>
<th>High SES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Participant</td>
<td>16%</td>
<td>24%</td>
<td>37%</td>
</tr>
<tr>
<td>Contact Sports</td>
<td>19%</td>
<td>30%</td>
<td>48%</td>
</tr>
<tr>
<td>Non-Contact Sports</td>
<td>23%</td>
<td>35%</td>
<td>53%</td>
</tr>
<tr>
<td>Tennis</td>
<td>29%</td>
<td>40%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Difference Between Tennis Participants and Non-Participants

- Low SES = 13%
- Middle SES = 16%
- High SES = 22%
Table V-42: Athletic Involvement and Academic Achievement, by Gender and Grade Level

Percent Indicating They Receive Mostly A’s

Girls

<table>
<thead>
<tr>
<th>Grade</th>
<th>Non-Athlete</th>
<th>Moderately Involved Athlete</th>
<th>Highly Involved Athlete</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd-5th Grade</td>
<td>6%</td>
<td>13%</td>
<td>26%</td>
</tr>
<tr>
<td>6th-8th Grade</td>
<td>6%</td>
<td>13%</td>
<td>26%</td>
</tr>
<tr>
<td>9th-12th Grade</td>
<td>6%</td>
<td>15%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Boys

<table>
<thead>
<tr>
<th>Grade</th>
<th>Non-Athlete</th>
<th>Moderately Involved Athlete</th>
<th>Highly Involved Athlete</th>
</tr>
</thead>
<tbody>
<tr>
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<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>6th-8th Grade</td>
<td>15%</td>
<td>18%</td>
<td>33%</td>
</tr>
<tr>
<td>9th-12th Grade</td>
<td>11%</td>
<td>14%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Chi-Square test comparing athletic involvement and the percent of students who indicated receiving mostly A's in school, by gender and grade.

Girls - 3rd-5th Grade: Chi-Square (2, 327) = 17.661***, p < .001; 6th-8th Grade: Chi-Square (2, 298) = 26.756***, p < .001; 9th-12th Grade: Chi-Square (2, 415) = 7.858*, p < .05.

Boys - 3rd-5th Grade: Chi-Square (2, 338) = 1.711, p = .425; 6th-8th Grade: Chi-Square (2, 336) = 15.964***, p < .001; 9th-12th Grade: Chi-Square (2, 410) = 5.735, p = .057.
Athletic Participation and Advanced Placement Course Enrollment

• **merged data** from the 2010 Civil Rights Data Collection and the Common Core of Data (U.S. Dept. of Education)
• “schools” (N = 4,644) are the **unit of analysis**

**FINDINGS:**

• **female athletic participation**: AP math and foreign language enrollments
• **male athletic participation**: AP math, science, and foreign language enrollments

Sports Participation and Teen Pregnancy Prevention

Compared to non-athletes, girls who played sports:
• Had lower pregnancy rates.
• Experienced first intercourse later in adolescence.
• Engaged in sexual intercourse less frequently.
• Reported fewer sex partners.
• Were more likely to use contraceptives.


What We Know

• Youth sports are a real and potential resource.
• Sports involvement can shape individual academic development.
• Sport is an institutional resource—at the family, school, community, and national levels.
• Youth sport as social capital.
• Sport is a catalyst rather than a “cause”.
POLICY RECOMMENDATIONS

1. Social scientists and educators need to do more relevant quantitative research.
2. Use of “big data” is now possible and imperative.
3. Government continue to collect data on sport.
Actual Percent of Schools Not Offering Interscholastic Sports and the Projected Percent of Schools Not Offering Interscholastic Sports

- **1993-94**: 5% Actual, 6% Projected
- **1999-00**: 9% Actual, 10% Projected
- **2005-06**: 16% Actual, 15% Projected
- **2009-10**: 19% Actual, 19% Projected
- **2019-20**: 23% Actual

*All Public High Schools in the 1994 CRDC Sample (n = 4,566)*
*All Public High Schools in the 2000 CRDC Sample (n = 12,030)*
*All Public High Schools in the 2006 CRDC Sample (n = 7,774)*
*All Public High Schools in the 2010 CRDC Sample (n = 9,769)*

- The full report may be downloaded at www.SHARPcenter.org, and also at www.womenssportsfoundation.org
Thank you!

Questions?
Comments?
Figure 2: Athletic Participation Opportunities, Percentages per 100 Students, Between 1993-1994 and 2009-2010, by Gender

- **Participation Opps. (Female)**
  - 1993-1994: 31%
  - 1999-2000: 36%
  - 2005-2006: 52%
  - 2009-2010: 53%

- **Participation Opps. (Male)**
  - 1993-1994: 45%
  - 1999-2000: 47%
  - 2005-2006: 41%
  - 2009-2010: 40%

**Schools That Had Sports OCR**
- **OCR 1994 (Valid Listwise)**: n = 4,236
- **OCR 2000 (Valid Listwise)**: n = 9,104
- **OCR 2006 (Valid Listwise)**: n = 6,444
- **OCR 2010 (Valid Listwise)**: n = 7,590
Figure 1: The Gender Equity Ratios for Athletic Participation Opportunities, 1993-1994, 1999-2000, 2005-2006, 2009-2010

- Participation Opportunity Ratio

1994: Schools That Had Sports OCR 1994 (Valid Listwise) n = 4,206
2000: Schools That Had Sports OCR 2000 (Valid Listwise) n = 8,892
2006: Schools That Had Sports OCR 2006 (Valid Listwise) n = 6,406
2010: Schools That Had Sports OCR 2010 (Valid Listwise) n = 7,535