

Women's Sports Foundation RESEARCH SERIES

Who's Playing College Sports?

Trends in Participation

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This report is the first in a series of three gender equity reports. The second report will examine which factors influence intercollegiate participation changes, with a special focus on Title IX, spending on men's basketball and football, and changing preferences for less prominent men's sports. It is scheduled for release in January 2008. The third report will examine how the racial and ethnic composition of intercollegiate athletes has changed over time. It is scheduled for release in June 2008.

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Who's Playing College Sports?

Trends in Participation

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About the Women's Sports Foundation

Founded in 1974 by Billie Jean King, the Women's Sports Foundation is a national charitable educational organization seeking to advance the lives of girls and women through sports and physical activity. The Foundation's Participation, Education, Advocacy, Research and Leadership programs are made possible by gifts from individuals, foundations and corporations. The Foundation is located in Nassau County, N.Y. For more information, please call the Foundation at (800) 227-3988 or visit www.WomensSportsFoundation.org. The Foundation serves as a center for collecting and sharing information on girls and women in sports and physical activity. The Women's Sports Foundation also produces academic research on the psychological, social and physiological dimensions of sport and physical activity in the lives of girls and women.

This educational publication is made possible by the support of our members and donors. The Women's Sports Foundation is a 501(c)(3) nonprofit organization. Donations to the Foundation are tax-deductible to the full extent of the law. Please give generously to support our mission and activities.

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Executive Summary

The 35th anniversary of Title IX is an excellent time to consider men's and women's participation in intercollegiate athletics. This study provides the most accurate and comprehensive examination of participation trends to date. We analyze data from almost every higher education institution in the country and utilize data and methods that are free of the shortcomings present in previous research on this subject. A 10-year NCAA sample containing 738 NCAA colleges and universities is examined over the 1995-96 to 2004-05 period. In addition, a complete four-year sample containing 1,895 higher education institutions is examined over the 2001-02 to 2004-05 period.

The results demonstrate that women continue to be significantly underrepresented among college athletes. At the average higher education institution, the female share of undergraduates is 55.8% while the female share of athletes is 41.7%. Women did enjoy a substantial increase in participation opportunities in the late 1990s, but this progress slowed considerably in the early 2000s. In fact, the increase in women's participation levels was roughly equal to the increase in men's participation levels between 2001-02 and 2004-05. Progress towards more equitable participation numbers for men and women has stalled.

Debates over Title IX have focused more on maintaining the numerous athletic opportunities that men have historically enjoyed rather than ensuring that women gain access to the opportunities they have been historically denied. In other words, the significant underrepresentation of women among college athletes often receives relatively little attention. Instead, the debate focuses on whether or not men have maintained their high participation levels, and many claim that men's athletic participation has seriously declined over time. The results of this study clearly refute this claim and instead indicate small overall increases in men's participation in intercollegiate athletics. Men's participation levels grew slightly between 1995-96 and 2001-02, a period containing the *Cohen vs. Brown* decision that encouraged colleges and universities to take Title IX more seriously. Furthermore, men's participation levels continued to increase between 2001-02 and 2004-05, a moment of tough financial times for many higher education institutions.

This report demonstrates the importance of providing a complete portrait of participation trends. Examination of specific sports or sets of institutions can produce misleading results. For example, participation in men's wrestling and tennis declined substantially over time, but other men's sports (football, baseball, lacrosse and soccer) experienced much larger gains. While it is true that men's participation levels fell slightly among Division I-A institutions, no other set of institutions experienced declines and many saw their men's participation levels increase.

Major Findings

- 1. Women's athletic participation levels substantially increased during the late 1990s, but this growth slowed considerably in the early 2000s.
 - ♦ For the 10-year/738 NCAA institutions sample, female participation grew by almost 26,000 athletes between 1995-96 and 2004-05, but only 15% of this increase came during the 2001-02 to 2004-05 period.
 - For the complete four-year/1,895 institutions sample, female participation grew by 11,000 athletes between 2001-02 and 2004-05, an increase similar to that experienced by men.
- 2. Women's participation still lags far behind men's participation levels.
 - ♦ For the average higher education institution in the complete four-year/1,895 institutions sample, the female share of undergraduate enrollment in 2004-05 was 55.8% while the female share of athletes was only 41.7%.
 - ♦ For the complete four-year/1,895 institutions sample, the reported number of men's participants in 2004-05 was 291,797, while the corresponding number for women was 205,492. In combination, these figures demonstrate that as of 2004-05, only 41% of athletic participants were women and 151,149 female athletes would need to have been added (assuming no reduction in male participants) to reach a share of 55%, the female share of full-time undergraduates in the fall of 2004.

- 3. Men's overall athletic participation levels increased over time.
 - For the 10-year/738 NCAA institutions sample, male participation grew by around 7,000 athletes between 1995-96 and 2004-05, an average of almost 10 athletes per institution.
 - For the complete four-year/1,895 institutions sample, male participation grew by almost 10,000 athletes between 2001-02 and 2004-05, an average of slightly over five athletes per institution.
- 4. While a few men's sports suffered substantial declines, a larger number of men's sports enjoyed increases that far outnumbered those losses.
 - ♦ For the 10-year/738 NCAA institutions sample, only tennis (-678) and wrestling (-488) experienced declines of more than 80 athletes between 1995-96 and 2004-05. In contrast, four men sports grew by much larger amounts: football grew by more than 4,000 participants while baseball (+1,561), lacrosse (+1,091) and soccer (+758) also rose sharply.
 - For the complete four-year/1,895 institutions sample, only two men's sports (tennis and volleyball) experienced declines of more than 60 athletes between 2001-02 and 2004-05, while 12 men's sports had increases of at least that amount. Men's football, baseball, lacrosse and soccer again enjoyed the largest increases.
 - For some of the growing men's sports (especially football), the participation increases were primarily due to growth in the average roster size. As a result, the total number of men's teams essentially remained the same over the period of study.
- 5. The only subset of higher education institutions that experienced declines in men's participation levels was NCAA Division I-A schools, the institutions that spend the most on intercollegiate athletics.
 - ♦ For the 10-year/738 NCAA institutions sample between 1995-96 and 2004-05, men's participation grew in Divisions II and III, remained mostly the same in Divisions I-AA and I-AAA, and fell only in Division I-A.
 - ♦ For the complete four-year/1,895 institutions sample between 2001-02 and 2004-05, all six of the major intercollegiate athletic organizations (NCAA, NAIA, NCCAA, NJCAA, COA, NWAAC) experienced overall increases in men's participation levels.

Policy Implications

Many of the arguments against Title IX in intercollegiate sports are not supported by the data presented in this comprehensive report. The findings in this study have implications for the ways that policymakers think about how Title IX has shaped the lives and opportunities of female and male athletes on American campuses.

- 1. Further weakening of Title IX, as represented by the March 2005 policy clarification, is unjustified.
- 2. Title IX does not need to be reformed to stop large overall decreases in men's athletic participation because such decreases have not occurred.
- 3. The debate over Title IX should not be based on the experience of a few individual sports.
- 4. Efforts to analyze and stem reductions in men's sports should focus on Division I-A institutions, the only set of institutions that experienced declines. Future attempts to explain the declines of men's athletic participation at Division I-A institutions should consider institutional policies and practices associated with the "arms race" in athletic spending.

How Are Colleges and Universities Doing? Grading Participation, Documenting Expansion

This report contains an online component (available at www.WomensSportsFoundation.org) that enables readers to evaluate and compare each higher education institution's performance in relation to its peers. We present the female share of undergraduates and the female share of athletes for each institution to examine whether the gender composition of an institution's athletes is similar to the gender composition of its student body. To help highlight colleges and universities that perform well in this regard, we assign grades. To identify higher education institutions that recently expanded the number of opportunities for female athletes, we also list the change in women's participation levels over recent years. Please see page 19 for additional details and a description of the grading criteria.

Introduction

The year 2007 marks the 35th anniversary of the passage of Title IX, which prohibits discrimination by gender in any federally funded educational institution. Although Title IX applies broadly to all aspects of education, the focus of this report is its application to intercollegiate athletic participation. Since the passage of Title IX in 1972, athletic opportunities for female undergraduates have expanded considerably.

To what extent has women's athletic participation continued to increase over the last 10 years? Have recent gains addressed the historical gender inequities within intercollegiate athletics? Such questions are important but sometimes missing within the Title IX debate. In contrast, much attention focuses on whether male athletes continue to enjoy their high participation levels. Some assert that men's athletics have been severely reduced, but these claims are rarely based on definitive statistical evidence. When sound data and analyses are utilized, how have men's participation levels changed over time?

In the past, these questions were difficult to answer due to a scarcity of data on intercollegiate athletics participation levels, which has prevented researchers from conducting substantial longitudinal analyses. As a result, estimates of participation trends can only be drawn from a limited number of reports, which contain contradictory findings in terms of men's participation levels and often possess serious shortcomings. A previous Women's Sports Foundation report (Sabo, 1997) and a 2001 Government Accounting Office (GAO) report found that men's sports have increased over time, yet a recent College Sports Council (CSC) study and a 1999 GAO report produced contradictory results. Appendix A discusses these reports further, and in an effort to generate consensus, demonstrates that past findings that differ from those presented in this report are primarily the result of shortcomings in the data and methodology these studies employ.

As a result of the limited research, great confusion exists regarding how athletic participation levels in higher education have changed over time. The hearings of the Secretary's Commission on Opportunity in Higher Education (2002-03) focused extensively on changes in athletic participation for men and women over time. The commission members brought in several experts to discuss the existing reports with "the hope that there would be some clarity and unanimity regarding some of these numbers," but the hearings ended with little consensus on how participation opportunities have changed over time.

The passage of the Equity in Athletics Disclosure Act (EADA) in 1994 created the opportunity for the clarity and unanimity that the commission members desired. This act requires colleges and universities to report detailed data on their athletic program to the general public. While some of the reported data are flawed, most notably the financial data, the participation data contain relatively few errors, and researchers can identify and adjust for these errors.

This report utilizes available EADA data to provide the most accurate and comprehensive analysis of how intercollegiate athletic participation levels have changed over time. This report differs from earlier studies in a number of important ways. The sample contains almost all institutions of higher education, while previous studies used only a subset of schools. As demonstrated in Appendices B and C, we expended great effort to ensure data validity, steps that were not taken in many previous reports. And finally, this report uses data that are publicly available, so unlike previous analyses of participation trends, the validity of the findings presented here can be scrutinized by the greater research community.

Due to changes in the reporting requirements of the EADA over time, we use two samples of higher education institutions throughout this study. Our "10-year/738 NCAA institution sample" includes the 738 NCAA institutions that reported data for the 1995-96, 2001-02, and 2004-05 academic years. Our "complete four-year/1,895 institutions sample" contains the 1,895 higher education institutions that reported data for 2001-02 and 2004-05, a nearly complete roster of all postsecondary institutions that offer athletic departments. As discussed in Appendix B, we use a smaller sample for the 10-year period, because the EADA did not require institutions to report participation data to the Office of Postsecondary Education (OPE) until 2000-01. As a result, a more limited amount of data is available for 1995-96.

Findings

Women's Participation

As demonstrated by Table 1, female participation in intercollegiate athletics increased by approximately 25,000 athletes over the 1995-96 to 2004-05 period for the 10-year/738 NCAA institutions sample. These gains were concentrated in the early years of the period as progress towards gender equity slowed considerably during the last three years of the period. Almost 85% of the increases in women's participation occurred between 1995-96 and 2001-02.

Participation trends varied significantly across sports. Soccer grew by more than 4,000 participants, while rowing (+2,779), softball (+2,203), swimming (+1,630) and lacrosse (+1,550) also experienced substantial gains. Our estimates also demonstrate similarly sized increases for cross country, indoor track and field, and outdoor track and field (see Appendix C for a discussion of these sports). In contrast, a number of sports (squash, tennis, skiing, rifle, sailing, gymnastics and fencing) experienced relatively little or no growth for women.

The results in Table 2 demonstrate that participation levels for women increased by more than 11,000 athletes between 2001-02 and 2004-05 for the complete four-year/1,895 institutions sample. The trends across sports did not differ from those reported for the

Table 1: Women's Participation by Sport, 10-Year/738 NCAA Institutions Sample					
Sport	1995-96	2001-02	2004-05	Change: 95-04	
Soccer	10,752	14,902	15,632	4,880	
Rowing	3,184	5,759	5,963	2,779	
Softball	9,706	11,553	11,909	2,203	
Swimming	7,088	8,436	8,718	1,630	
Lacrosse	3,038	4,432	4,588	1,550	
Golf	1,795	2,749	2,956	1,161	
Ice Hockey	377	1,222	1,348	971	
Water Polo	221	850	950	729	
Equestrian	331	848	1,041	710	
Volleyball	9,191	9,669	9,896	705	
Field Hockey	3,953	4,307	4,356	403	
Basketball	10,316	10,721	10,626	310	
Other Sports*	279	590	573	294	
Bowling	29	224	289	260	
Fencing	506	590	622	116	
Gymnastics	1,208	1,285	1,310	102	
Sailing	361	428	461	100	
Rifle	110	123	135	25	
Skiing	373	368	389	16	
Tennis	6,244	6,355	6,256	12	
Squash	324	327	311	-13	
Subtotal	69,386	85,738	88,329	18,943	
Cross Country**	(Estim	ated increase o	of 1,426 partio	cipants)	
Indoor Track & Field**	(Estim	ated increase o	of 3,478 partio	cipants)	
Outdoor Track & Field**	(Estim	ated increase o	of 1,998 partic	cipants)	
Total	(Estimated increase of 25,845 participants)				

* Other Sports include archery, badminton, ice skating, judo, lightweight rowing, pistol, polo, rodeo, rugby, synchronized swimming, track & skeet shooting, water skiing, and wrestling. None of these sports have more than 10 teams in any year.

2001-02 to 2004-05 period in Table 1. The number of participants in squash, gymnastics and tennis fell, while the largest increases occurred in soccer, track and field, cross country, softball, swimming, volleyball and golf.

The number of women's teams also grew substantially in the late 1990s, but this growth slowed in the early 2000s. (See Table 3.) For the 10-year/738 NCAA institutions sample, 876 teams were added between 1995-96 and 2004-05, an increase of more than one team per school. For the complete four-year/1,895 institutions sample, the increase was 394 between 2001-02 and 2004-05, suggesting that only a minority of institutions added women's teams during this period. The differences by sports were similar to those reported for participation levels, except that one sport, golf, became more noticeable as a growth sport. An additional golf team does not create as many extra participants as other sports do because the average roster size for golf is relatively small (7.2).

^{**} See Appendix C for further discussion of cross country and track and field estimates.

Table 2: Women's Participation by Sport, Complete
Four-Year/1,895 Institutions Sample

Sport	2001-02	2004-05	Change
Soccer	26,312	28,576	2,264
Softball	25,118	25,897	779
Swimming	10,731	11,371	640
Volleyball	20,781	21,409	628
Golf	4,237	4,783	546
Lacrosse	5,385	5,791	406
Equestrian	1,467	1,751	284
Rodeo	337	554	217
Ice Hockey	1,427	1,638	211
Rowing	6,580	6,780	200
Basketball	24,219	24,381	162
Bowling	428	589	161
Water Polo	1,618	1,768	150
Field Hockey	5,176	5,308	132
Sailing	510	595	85
Fencing	616	661	45
Rifle	173	198	25
Skiing	503	523	20
Badminton	144	153	9
Squash	338	322	-16
Gymnastics	1,483	1,424	-59
Other Sports*	1,142	1,021	-121
Tennis	10,212	10,023	-189
Subtotal	148,937	155,516	6,579

Cross Country**	(Estimated increase of 837 participants)
Indoor Track & Field**	(Estimated increase of 1,815 participants)
Outdoor Track & Field**	(Estimated increase of 1,813 participants)

Total (Estimated increase of 11,043 participants)

Table 3: Changes in Team Offerings, Women				
Sport	1995-2004*	2001-2004*		
Soccer	162	86		
Golf	141	68		
Softball	92	33		
Track and Field, Indoor**	71	48		
Lacrosse	72	22		
Track and Field, Outdoor**	46	18		
Swimming	40	15		
Cross Country**	34	18		
Bowling	30	17		
Water Polo	37	7		
Ice Hockey	38	6		
Rowing	43	2		
Volleyball	18	18		
Basketball	10	25		
Field Hockey	20	7		
Equestrian	17	8		
Rodeo	1	19		
Other Sports	7	11		
Sailing	2	4		
Rifle	1	-1		
Squash	0	-1		
Fencing	-1	-1		
Skiing	-2	1		
Gymnastics	-5	-6		
Tennis	2	-30		
Total	876	394		

^{*} The first column of results contains the number of teams added, on net, between the 1995-96 to 2004-05 period for the 10-year/738 NCAA institutions sample. The second column contains the same information for the complete four-year/1,968 institutions sample for the 2001-02 to 2004-05 period.

^{*} Other Sports include archery, ice skating, judo, lightweight rowing, pistol, polo, rodeo, rugby, synchronized swimming, table tennis, team handball, water skiing, weight lifting, and wrestling. None of these sports have more than 10 teams in any year.

^{**} See Appendix C for further discussion of cross country and track and field estimates.

 $[\]ensuremath{^{**}}$ See Appendix C for further discussion of cross country and track and field estimates.

Men's Participation

Male participation in intercollegiate athletics increased by approximately 7,000 athletes over the 1995-96 to 2004-05 period for the 10-year/1,865 NCAA sample. (See Table 4.) This increase was steady over the period, occurring during good economic times for colleges and universities (the late 1990s) as well as relatively bad economic times (the early 2000s). The gain in men's overall participation masked differences across individual sports; increases in the growing sports were substantially larger than the declines in the remaining sports. Four sports accounted for almost all of the increase in men's participants: football grew by more than 4,000 participants, while baseball (+1,561), lacrosse (+1,091) and soccer (+758) also rose sharply. Meanwhile, only two sports declined by more than 80 athletes, and these declines were relatively small at -680 (for tennis) and -488 (for wrestling). In general, the trends by sport were similar for men and women in that the sports experiencing no growth for women were those that had declines for men.

Although small in terms of total athletes, the reductions in some of the individual men's sports were relatively large in percentage terms.

Sample						
Sport	1995-96	2001-02	2004-05	Change: 95-04		
Football	43,814	46,716	47,870	4,056		
Baseball	19,482	20,506	21,043	1,561		
Lacrosse	4,482	5,148	5,573	1,091		
Soccer	13,492	13,847	14,250	758		
Swimming	6,146	6,136	6,274	128		
Other Sports*	536	454	626	90		
Water Polo	602	651	684	82		
Volleyball	719	845	768	49		
Rowing	2,388	2,396	2,436	48		
Basketball	11,828	11,842	11,868	40		
Skiing	417	402	405	-12		
Ice Hockey	3,027	3,057	3,003	-24		
Rifle	210	210	169	-41		
Fencing	628	542	586	-42		
Squash	418	374	368	-50		
Sailing	509	403	436	-73		
Golf	6,008	6,001	5,932	-76		
Gymnastics	354	280	277	-77		
Wrestling	5,089	4,787	4,601	-488		
Tennis	6,252	5,780	5,572	-680		
Subtotal	126,401	130,377	132,741	6,340		
Cross Country**	(Estimated increase of 48 participants)					

Table 4: Men's Participation by Sport, 10-Year/738 NCAA Institutions

(Estimated decrease of 202 participants)

(Estimated increase of 7,101 participants)

(Estimated increase of 915 participants)

For example, rifle fell by only 41 athletes, but that was a 20% decline from 1995-96 levels. To demonstrate how important scale is, consider the following: in 2004-05, the combined number of participants for men's water polo, volleyball, skiing, rifle, fencing, squash, sailing and gymnastics was 3,693. In contrast, the number of football participants grew by 4,063 between 1995-96 and 2004-05. In other words, if the 4,063 increase in participants occurred in these eight sports rather than football, each of these sports would be more than twice as large in 2004-05.

Indoor Track & Field**

Total

Outdoor Track & Field**

As indicated by Table 5, the growth in men's sports between 2001-02 and 2004-05 was even larger when one considers all higher education institutions (i.e. the complete four-year/1,895 institutions sample). During this period, men's participation levels increased by close to 10,000 for the 1,895 institutions reporting data for both years. This increase is very similar to the 11,000 participant increase reported for women in Table 2 for the same set of institutions. Almost two-thirds (16 of 25) of men's sports experienced gains between 2001-02 and 2004-05. Table 5 shows that the declines in individual men's sports were very slight in relation to the gains in other sports. Only two men's sports experienced declines of more than 60 athletes, while 12 men's sports had increases of at least that amount. As in Table 4, the men's sports that experienced the largest gains were football, baseball, soccer and lacrosse, whose gains dwarfed the losses experienced by volleyball and tennis, the two sports with the largest declines.

^{*} Other Sports include archery, bowling, cricket, equestrian, judo, sprint football, lightweight rowing, pistol, polo, rodeo, rugby, track & skeet shooting, and water skiing. None of these sports have more than 10 teams in any year.

^{**} See Appendix C for further discussion of cross country and track and field estimates.

Table 5: Men's Participation by Sport, Complete						
Four-Year/1,895 Institutions Sample						
Sport	2001-02	2004-05	Change			
Football	73,714	76,639	2,925			
Baseball	44,367	46,511	2,144			
Soccer	28,542	29,903	1,361			
Lacrosse	6,964	7,730	766			
Swimming	7,917	8,349	432			
Basketball	28,235	28,589	354			
Other Sports*	786	1064	278			
Golf	11,129	11,374	245			
Sailing	498	581	83			
Water Polo	1,384	1,461	77			
Bowling	232	302	70			
Rodeo	1,058	1,125	67			
Fencing	568	620	52			
Squash	385	380	-5			
Wrestling	7,483	7,478	-5			
Skiing	578	562	-16			
Ice Hockey	4,043	4,026	-17			
Rowing	2,899	2,876	-23			
Rifle	263	232	-31			
Gymnastics	353	295	-58			
Volleyball	1,752	1,624	-128			
Tennis	9,391	9,052	-339			
Subtotal	232,541	240,773	8,232			
Cross Country**	(Estimated in	crease of 84 parti	cipants)			
Indoor Track & Field**	(Estimated inc	rease of 759 part	icipants)			
Outdoor Track & Field**	(Estimated inc	rease of 890 part	icipants)			
Total	(Estimated increase of 9,965 participants)					

* Other Sports include archery, cricket, judo, sprint football, lightweight
rowing, pistol, polo, rodeo, rugby, table tennis, team handball, and water
skiing. None of these sports have more than 10 teams in any year.

 $[\]ensuremath{^{**}}$ See Appendix C for further discussion of cross country and track and field estimates.

Table 6: Changes in Team Offerings, Men			
Sport	1995-2004*	2001-2004*	
Track & Field, Indoor**	34	37	
Lacrosse	20	9	
Baseball	3	15	
Soccer	2	15	
Other Sports	4	12	
Cross Country**	10	5	
Track and Field, Outdoor**	7	8	
Golf	8	3	
Rodeo	1	10	
Basketball	2	8	
Football	3	1	
Sailing	2	2	
Ice Hockey	2	0	
Water Polo	5	-3	
Skiing	0	-3	
Squash	-2	-1	
Rifle	-1	-3	
Rowing	0	-7	
Fencing	-5	-2	
Swimming	-7	-3	
Volleyball	0	-19	
Gymnastics	-10	-5	
Wrestling	-32	-8	
Tennis	-44	-48	
Total	2	23	

^{*}The first column of results contains the number of teams added, on net, between the 1995/96 to 2004/05 period for the 10-year/738 NCAA institutions sample. The second column contains the same information for the complete four-year/1,968 institutions sample for the 2001/02 to 2004/05 period.

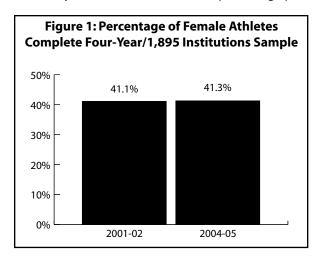
This overall growth in participation, however, did not translate into growth in the number of men's teams. As indicated in Table 6, the overall number of men's teams experienced almost no change over time. The number of teams for some individual sports, however, did increase or decrease over the period of study. There are two reasons why the overall number of men's participants increased but the overall number of men's teams did not. First, the average roster size increased between 1995-96 and 2004-05 for several men's sports, most notably football (+7.0), baseball (+2.3), lacrosse (+3.4) and soccer (+1.2). Second, the sport experiencing the largest decline was tennis, which had teams with an average roster size of 9.4 in 2004-05. Meanwhile, the average roster sizes in 2004-05 were quite large for growing sports such as lacrosse (32.9), baseball (30.0) and soccer (24.6).

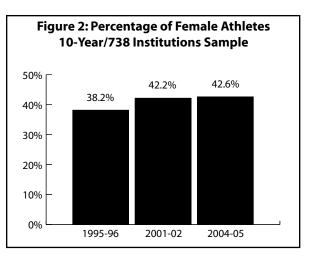
^{**} See Appendix C for further discussion of cross country and track and field estimates.

Female Share of Athletes

While women's participation increased more than men's participation, females still comprise a minority of athletes. For the complete four-year sample of 1,895 institutions, the reported number of men's participants in 2004-05 was 291,797 while the corresponding number for women was 205,492. In combination, these figures demonstrate that as of 2004-05, only 41% of athletic participants were women, and 151,149 female athletes would need to have been added (assuming no reduction in male participants) to reach a share of 55%, the female share of full-time undergraduates in the fall of 2004 (NCES, 2005).

As demonstrated in Figure 1, the female participation share changed little (from 41.1% to 41.3%) between 2001-02 and 2004-05 for our complete four-year/1,895 institutions sample. Figure 2 shows similar findings over this period for the 10-year/738 NCAA institutions sample, but it also depicts substantial improvement during the late 1990s. Between 1995-96 and 2001-02, the female share of athletes increased from 38.2% to 42.2%. The female share only increased four-tenths of a percentage point between 2001-02 and 2004-05 (from 42.2% to 42.6%).





The much higher participation levels for men do not imply that a larger number of men's teams were offered. Among our complete four-year/1,895 institutions sample, the average institution offered 6.3 men's teams and 6.7 women's teams in 2004-05. The contrast between the participation and team numbers mainly reflects the large average roster size for football, which was 93 for the 823 institutions offering the sport in 2004-05.

Compliance with Title IX

To demonstrate compliance with Title IX, higher education institutions must meet requirements in three areas: participation, athletic financial assistance and other program areas. For a complete description of these standards, please see Appendix D. To determine whether colleges and universities are providing equitable participation opportunities to female athletes, the Office for Civil Rights (OCR) has developed the following three-prong test.

Prong One: Substantial Proportionality. This part of the test is satisfied when participation opportunities for men and women are "substantially proportionate" to their respective undergraduate enrollments.

Prong Two: History and Continuing Practice. This part of the test is satisfied when an institution has a history and continuing practice of program expansion that is responsive to the developing interests and abilities of the underrepresented sex (typically female).

Prong Three: Effectively Accommodating Interests and Abilities. This part of the test is satisfied when an institution is meeting the interests and abilities of its female students even where there are disproportionately fewer females than males participating in sports (U.S. Department of Education, 1997).

An institution fulfills the participation requirement if it adheres to any or just one of the three tests listed above. The Equity in Athletics Disclosure Act (EADA) data allow one to make several broad-brush inferences with regard to compliance with the first two prongs of the Title IX athletic participation standards.

Table 7 contains detailed information on the extent to which participation opportunities were "substantially proportionate" to undergraduate enrollments. For the complete four-year/1,985 institutions sample in 2004-05, the female share of undergraduate enrollments was 55.8%, while

Table 7: 2004-05 Substantial Proportionality and Program Expansion Estimates					
Variable	10-Yr NCAA Sample	Complete 4-Yr Sample			
% Undergraduates, Female	55.3%	55.8%			
% Athletes, Female	42.7%	41.7%			
Average Proportionality Gap (Prop Gap)	12.5	14.1			
Percent of Institutions:					
with Prop Gap > 3	85.2%	86.9%			
with Prop Gap > 5	76.8%	80.7%			
with Prop Gap > 10	58.3%	65.8%			
with Prop Gap > 15	39.3%	46.3%			
with Prop Gap > 20	23.3%	28.6%			
with Prop Gap > 25	10.2%	14.4%			
with Prop Gap > 30	2.6%	6.3%			
Percent of Institutions Adding Women's	Teams on Net:				
Between 2001-02 and 2004-05	24.4%	26.0%			
Between 1995-96 and 2001-02	65.9%	n/a			

the female share of athletes was 41.7%. In combination, these figures mean that the average institution had a proportionality gap of 14.1 percentage points and was far from compliance with the first prong of the test. The figures were only slightly better for the 10-year/738 NCAA institutions sample, which had an average female share of athletes of 42.7% and an average proportionality gap of 12.5 percentage points.

In a 1996 policy clarification, the Office for Civil Rights (OCR) stated that they would:

consider opportunities to be substantially proportionate when the number of opportunities that would be required to achieve proportionality would not be sufficient to sustain a viable team, i.e., a team for which there is a sufficient number of interested and able students and enough available competition to sustain an intercollegiate team (Office for Civil Rights, 1996).

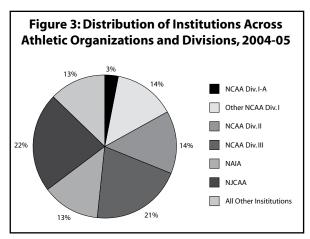
Depending on the size of the institution's athletic department, an institution would need a proportionality gap between one and three percentage points to meet this standard. As Table 7 indicates, the large majority of institutions (somewhere above 86.9% or 1,620 institutions) did not achieve substantial proportionality in 2004-05 because their female share of athletes was below their female share of undergraduates. Furthermore, many institutions were far from compliance with the first prong; for example, 46% of the complete four-year/1,895 institutions sample had a proportionality gap greater than 15 percentage points.

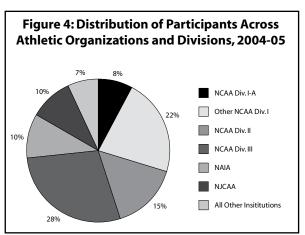
Table 7 also demonstrates that approximately a quarter of institutions added a female sport on net between 2001-02 and 2004-05; that is, around 25 percent of institutions increased the number of women's teams they offer. Some of these institutions, however, may not be in compliance with Prong Two (a history and continuing practice of program expansion), because the 1996 OCR Policy Clarification suggests that a more thorough examination is required. The results in Table 7 indicate that a much larger share of institutions (66%) added a female sport on net between 1995-96 and 2001-02. However, no OCR guidelines suggest that increases in such an historical time frame without additional expansion would demonstrate a history and continuing practice of program expansion.

In combination, the figures in Table 7 clearly indicate that the majority of institutions would not meet either of the first two prongs of the three-prong test. More than 86 percent of institutions would not meet the substantial proportionality standard, and 75 percent did not increase their number of women's teams in the early 2000s. A reliable estimate of Prong Three compliance cannot be conducted using EADA data and is therefore beyond the scope of this report.

Distribution of Institutions Across Athletic Organization Affiliations and Divisions

To this point, we have discussed colleges and universities in the aggregate. The following two sections examine how participation trends and compliance levels vary by an institution's organizational affiliation and the division within the organization in which it competes. It is helpful to first provide some perspective regarding the location of most intercollegiate athletes, because the vast majority of these athletes compete outside the limelight of the national media. The casual observer may believe that intercollegiate athletics primarily takes place within large athletic departments that offer football and compete in Bowl Championship Series (BCS) athletic conferences (Big-10, Pac-10, Big 12, SEC, ACC, Big East). But as Figures 3 and 4 demonstrate, BCS institutions comprise only 3% of the higher education institutions that offer athletics and account for only 8% of intercollegiate athletes.





Nearly half of the colleges and universities that offer athletics are not in the NCAA (around 48%), although the smaller size of athletic programs at non-NCAA institutions cause them to contain only 27% of the total athletes. These schools mostly reside in the National Association of Intercollegiate Athletics (NAIA) and the National Junior College Athletic Association (NJCAA). The other 49% of athletic departments reside at institutions that are in the NCAA but in other conferences within Division I or in Divisions II or III. Unlike Divisions I and II, Division III institutions do not offer athletic scholarships; also, schools in Division II face limits on the number of athletic scholarships allowed that are different from those in Division I.

Participation Levels by Affiliation and Division

Table 8 describes changes in participation levels by NCAA division and subdivision between 1995-96 and 2004-05 for the 10-year/738 NCAA institutions sample. The results indicate that the average institution in the 10-year NCAA sample added 35 female athletes, with steady growth throughout the NCAA, as each division increased its number of female participants by at least 20 percent. The largest gains, in terms of number of participants, occurred in Divisions I-A and I-AA. The results presented earlier in Table 1 demonstrate that most of the gains (about 85%) took place during the first six years of the period.

The evidence in Table 9 (which contains information for the complete four-year/1,895 institutions sample) also suggests that the gains for female athletes slowed between 2001-02 and 2004-05. The average NCAA institution added about seven to eight female athletes over the period of study, with the largest increase occurring among non-BCS Division I-A institutions. Outside of the NCAA, NAIA schools experienced the largest growth (eight female athletes per institution), while two-year institutions in the NJCAA and the Northwest Athletic Association of Community Colleges (NWACC) lagged behind.

Tables 8 and 9 (on the following pages) also report information on how changes in men's athletic participation varied across organizations and divisions. The figures in Table 8 demonstrate that the overall gains for men

		Total Participants			Participants per Institution		
	# Inst.	1995-96	2004-05	Change	1995-96	2004-05	Change
Women							
All NCAA Institutions	738	101,570	127,415	25,845	137.6	172.6	35.0
Division I	269	46,346	58,739	12,393	172.3	218.4	46.1
Div. I-A (BCS)	60	13,636	17,335	3,699	227.3	288.9	61.7
Div. I-A (Non-BCS)	39	6,278	8,471	2,193	161.0	217.2	56.2
Div. I-AA	88	15,823	19,718	3,895	179.8	224.1	44.3
Div. I-AAA	60	7,334	9,008	1,674	122.2	150.1	27.9
Division II	180	16,574	21,571	4,997	92.1	119.8	27.8
Division III	264	35,866	43,449	7,583	135.9	164.6	28.7
Men		,					
All NCAA Institutions	738	163,998	171,099	7,101	222.2	231.8	9.6
Division I	269	74,513	72,736	-1,777	277.0	270.4	-6.6
Div. I-A (BCS)	60	22,395	21,918	-477	373.3	365.3	-7.9
Div. I-A (Non-BCS)	39	11,685	10,766	-919	299.6	276.1	-23.6
Div. I-AA	88	26,363	26,312	-51	299.6	299.0	-0.6
Div. I-AAA	60	8,933	8,953	20	148.9	149.2	0.3
Division II	180	28,769	31,886	3,117	159.8	177.1	17.3
Division III	264	55,988	61,210	5,222	212.1	231.9	19.8

reported in Table 4 (on page 9) were driven by substantial gains for male athletes in Divisions II and III. The average institution in these divisions increased the number of male participants by about 17-20 over this period. In contrast, NCAA Division I institutions reported declines in men's participation levels. Furthermore, these declines were concentrated within the upper levels of Division I. Division I-AAA schools (which don't offer football) and Division I-AA schools (which have a lower football scholarship limit of 63) saw little change in men's participation levels over time. The declines solely occurred for Division I-A institutions (which can offer up to 85 football scholarships). Within Division I-A, the largest reductions occurred for schools located outside of the BCS conferences; they saw a drop of 24 participants per institution, much higher than the eight-participant drop for BCS schools.

The evidence tells a similar story when one examines all intercollegiate athletic organizations. (See Table 9, next page.) Between 2001-02 and 2004-05 for the complete four-year/1,895 institutions sample, the only decreases for men's participation occurred among non-BCS Division I-A institutions and among institutions switching affiliations within Division I over the period. The reductions in the latter group (which are not listed separately in Table 9) primarily came from the seven Division I institutions that dropped football over the period of study and moved into Division I-AAA. Only one Division I institution added football. The largest gains for men occurred within the NAIA, where the average institution added 15 athletes over the period of study.

Table 9: Participants by NCAA Division, Complete Four-Year/1,895 Institutions Sample **Total Participants** Participants per Institution 2001-02 2004-05 2001-02 2004-05 # Inst. Change Change Women All Institutions 1895 198,623 209,666 11,043 104.8 110.6 5.8 NCAA 156,687 155.1 162.5 7.5 964 149,472 7,215 Div.I 321 65,537 67,753 2,216 204.2 211.1 6.9 Div. I-A (BCS) 342 300.5 5.7 63 18,031 18,373 306.2 Div. I-A (Non-BCS) 50 10,337 11,082 745 195.0 209.1 14.1 Div. I-AA 113 23,026 23,788 762 203.8 210.5 6.7 Div. I-AAA 83 12,228 12,700 472 147.3 153.0 5.7 Div. II 28,626 30,615 109.7 7.6 261 1,989 117.3 Div. III 8.0 375 54,403 57,408 3,005 145.1 153.1 NAIA 239 17,622 19,627 2,005 73.7 82.1 8.4 Div.I 5.0 104 6,484 7,009 525 62.3 67.4 Div. II 127 10,332 11,803 1,471 81.4 92.9 11.6 **NCCAA** 41 985 147 1,132 24.0 27.6 3.6 NJCAA 431 17,747 18,397 650 42.7 1.5 41.2 Div.I 220 8,767 9,065 298 39.9 41.2 1.4 Div. II 86 3,783 3,905 122 44.0 45.4 1.4 Div. III 92 3,828 4,035 207 41.6 43.9 2.2 COA 95 7,305 7,713 408 76.9 81.2 4.3 **NWAAC** 32 1,537 1,511 -26 48.0 47.2 -0.8 Men All Institutions 1895 285,215 295,180 9,965 150.5 155.8 5.3 NCAA 964 206,355 210,961 4,606 214.1 218.8 4.8 Div.I 321 83,959 83,036 -923 261.6 258.7 -2.9 Div. I-A (BCS) 63 22,583 22,611 28 358.5 358.9 0.4 Div. I-A (Non-BCS) 272.6 -7.3 50 13,631 13,268 -364 265.4 Div. I-AA 113 32,205 32,323 118 285.0 286.0 1.0 Div. I-AAA 83 12,460 12,594 134 150.1 151.7 1.6 Div. II 261 43,177 44,856 1,679 165.4 171.9 6.4 Div. III 375 77,510 81,543 4,033 206.7 217.4 10.8 NAIA 15.0 239 26,264 29,858 3,594 109.9 124.9 Div.I 104 9,960 11,091 1,131 95.8 106.6 10.9 19.9 Div. II 127 15,005 17,531 2,526 118.1 138.0 **NCCAA** 41 1,393 1,503 110 2.7 34.0 36.7 NJCAA 431 29,475 29,958 483 68.4 69.5 1.1 Div.I 220 14,461 14,502 41 65.7 65.9 0.2 Div. II 86 5,776 5,985 209 67.2 69.6 2.4 Div. III 92 7,148 76.0 6,990 158 77.7 1.7 COA 95 13,709 14,390 681 144.3 151.5 7.2 **NWAAC** 32 1,811 1,872 61 56.6 58.5 1.9

^{*} An institution is only reported in a division and subdivision if they are in that classification for 2001-02 and 2004-05.

^{**} NCAA refers to the National Collegiate Athletic Association; NAIA refers to the National Association of Intercollegiate Athletics; NCCAA refers to the National Christian College Athletic Association; NJCAA refers to the National Junior College Athletic Association; COA refers to the California Community College Commission on Athletics; NWAAC refers to the Northwest Athletic Association of Community Colleges.

Title IX Compliance by Affiliation and Division

As indicated in Table 10, some variation existed across the 10-year/738 NCAA institutions sample in terms of our very rough estimates of compliance with Prongs One and Two of the participation requirement of Title IX. In 2004-05, institutions in Division I-A BCS conferences had the smallest average proportionality gap, but that was not because they had the highest share of women among their athletes. Although these institutions had a relatively high share of female athletes (44%), the primary reason why they had the lowest average proportionality gap was their relatively low female share of undergraduates (50%). In contrast, Division I-AAA schools had a substantially higher female share of athletes (50%) but an even higher female share of undergraduates (58.5%). Similarly, Division I-A schools that were not in BCS conferences had a similar female share of athletes (45%) as their BCS counterparts, but had a higher average proportionality gap because 53% of their undergraduates were female. Divisions II, III and I-AA had the lowest female share of athletes and the highest proportionality gaps among all NCAA classifications.

Table 10: 2004-05 Substantial Proportionality and Program Expansion Estimates, 10-Year/738 NCAA Institutions Sample								
	All NCAA	Div I	Div II	Div III	Div I-A (BCS)	Div I-A (non-BCS)	Div I-AA	Div I-AAA
Average:								
Proportionality Gap	12.5	9.2	16.5	13.3	6.2	8.6	12.5	8.3
Percent Undergraduates, Female	55.3%	54.3%	57.4%	55.0%	50.1%	53.2%	54.3%	58.5%
Percent Athletes, Female	42.7%	45.0%	40.9%	41.7%	44.0%	44.6%	41.8%	50.2%
% with Proportionality Gap > 3	85.2%	78.1%	92.2%	89.0%	73.3%	69.2%	85.2%	78.3%
% with Proportionality Gap > 5	76.8%	62.1%	87.2%	85.2%	51.7%	59.0%	73.9%	56.7%
% with Proportionality Gap > 10	58.3%	40.9%	72.2%	67.0%	26.7%	38.5%	56.8%	35.0%
% adding women's teams: 01-04	24.4%	18.6%	31.7%	25.4%	13.3%	25.6%	15.9%	23.3%
% adding women's teams: 95-01	65.9%	72.1%	61.1%	61.4%	75.0%	74.4%	79.5%	53.3%
# of Institutions	738	269	180	264	60	39	88	60

In terms of program expansion for females, Division II boasted the largest share of institutions that added women's teams between 2001-02 and 2004-05, while Divisions I-A (BCS) and I-AA had the lowest shares. In contrast, Divisions I-A and I-AA had the highest share of institutions that added women's teams over the 1995-96 to 2001-02 period, while Division I-AAA had the lowest share.

As indicated by Table 11, athletic organizations in the complete four-year/1,895 sample differed substantially in meetings Prongs One or Two of Title IX's three-prong test. Among the largest organizations, NAIA and NJCAA schools had slightly higher average

Table 11: 2004-05 Substantial Proportionality and Program Expansion Estimates, Complete Four-Year/1,895 Institutions Sample							
Measure	All	NCAA	NAIA	NCCAA	NJCAA	COA	NWAAC
Average:							
Proportionality Gap	14.1	13.0	15.9	6.9	16.3	19.4	9.5
Percent Undergraduates, Female	55.8%	55.8%	57.6%	49.3%	56.1%	55.4%	54.8%
Percent Athletes, Female	41.7%	42.8%	41.6%	42.4%	39.8%	36.0%	45.3%
% with Proportionality Gap > 3	86.9%	86.2%	89.1%	75.6%	90.7%	94.7%	84.4%
% with Proportionality Gap > 5	80.7%	78.8%	84.9%	63.4%	86.1%	88.4%	78.1%
% with Proportionality Gap > 10	65.8%	61.2%	78.7%	31.7%	71.2%	85.3%	43.8%
% adding women's teams: 01-04	26.0%	25.9%	36.0%	34.1%	19.7%	17.9%	12.5%
# of Institutions	1895	964	239	41	431	95	32

^{*} An institution is only reported in a division and subdivision if they are in that classification for 2001-02 and 2004-05.

^{**} NCAA refers to the National Collegiate Athletic Association; NAIA refers to the National Association of Intercollegiate Athletics; NCCAA refers to the National Christian College Athletic Association; NJCAA refers to the National Junior College Athletic Association; COA refers to the California Community College Commission on Athletics; NWAAC refers to the Northwest Athletic Association of Community Colleges.

proportionality gaps than those in the NCAA. Note that relative to the NCAA, the female share of undergraduates was higher at NAIA institutions, while the female share of athletes was lower at NJCAA schools. Among the smaller organizations, the NWAAC and the National Christian College Athletic Association (NCCAA) had relatively low average proportionality gaps, while the California Community College Commission on Athletics (COA) had a very high gap. These figures resulted from a relatively low female share of undergraduates at NCCAA institutions (49.3%), a relatively high female share of athletes at NWAAC colleges (45.3%), and a low female share of athletes at COA colleges (36%).

In terms of expanding women's athletics, the three organizations representing four-year institutions did considerably better than the three representing community colleges. Slightly more than one-third of institutions within the NAIA and NCCAA, and about one-quarter of NCAA schools, added at least one female team on net between 2001-02 and 2004-05. The analogous figures for NJCAA, COA and NWAAC ranged between 13% and 20%.

What Explains These Participation Trends?

This report provides the most accurate and comprehensive description to date of how men's and women's participation in intercollegiate athletics have changed over time. An upcoming Women's Sports Foundation report (January 2008) will examine the extent to which Title IX, spending on prominent men's sports, high school participation levels and other factors contribute to the participation trends observed. Although a thorough examination must be left to that report, the findings in this report provide some meaningful insights.

After substantial growth during the second half of the 1990s, gains in female participation nearly leveled off between 2001-02 and 2004-05. While the fiscal challenges experienced by colleges and universities during the early 2000s may account for some of the slow growth in overall female participation, they do not explain why male and female participation levels increased by similar amounts even though female athletes still only comprise 41% of athletes. Given that the rapid gain in women's participation levels coincided with the Clinton administration, while the much slower growth occurred during the Bush administration, any changes in support of Title IX across these two different administrations could provide an additional explanation.

The steady gains for male participation certainly counter claims that Title IX has led to widespread reductions in men's sports. In fact, men's participation grew between 1995-96 and 2001-02, a period containing the *Cohen v. Brown* decision, which pushed colleges and universities to take Title IX more seriously. In addition, between 2001-02 and 2004-05, many colleges and universities faced extremely difficult financial situations as a result of the general slowdown in the national economy. In such a budgetary environment, institutions would welcome any opportunity to cut costs. Yet, overall participation in men's athletics continued to grow. Thus, the evidence does not support the argument that pressures to comply with Title IX led to overall reductions in men's sports over the 10 years spanning 1995-96 and 2004-05.

We do find reductions in men's participation levels for Division I-A institutions, especially those in non-BCS conferences. Division I-A institutions may face the greatest pressure to comply with Title IX because many female athletes desire the opportunity to participate at the highest level of competition. Such considerations may explain the high growth in women's participation at these institutions over the period of study. But a Division I-A schools face another concern that is much more severe: the pressure to increase spending levels by an amount similar to their competitors, especially in high-profile men's sports.

These pressures have contributed to extremely high expenditures among Division I-A institutions. According to a recent NCAA study (Fulks, 2005), the average Division I-A athletic program has expenditures of \$27.2 million, far above the \$7.5 million spent by Division I-AA programs or the \$2.7 million spent by Division II programs with football. Furthermore, Division I-A institutions devote a much greater share of their dollars to men's football. Among those expenditures allocated to specific sports, 41.6% of Division I-A expenditures go to football, while the corresponding shares are only 26.6% and 29.0% for Division I-AA and Division II (with football), respectively.

The results of this study also demonstrate that participation trends differed across individual men's sports. For example, we find that men's lacrosse and soccer have grown steadily while men's tennis and wrestling have declined. What is the cause of these trends? Neither Title IX nor spending on men's football seems like a good explanation. A variety of sport-specific factors is more likely the culprit and the forthcoming Women's Sports Foundation report will examine some of these alternative explanations.

Policy Implications

For too long, policymakers have been forced to rely upon a set of confusing and contradictory estimates of how intercollegiate athletics participation has changed over time. This report addresses this problem. It produces clear evidence regarding participation trends and, furthermore, it demonstrates that two recent reports on Title IX have yielded erroneous findings due to shortcomings in their data analysis and methodology. (See Appendix A for a systematic critique of these two studies.) The participation trends revealed by this report have several important implications for the ways that policymakers think about Title IX and shifting patterns of female and male athletic participation.

Implication #1: Further weakening of Title IX, as represented by the March 2005 policy clarification, is unjustified.

Women continue to be significantly underrepresented in college athletics and the growth in their participation slowed considerably in the early 2000s. These findings provide no support for weakening Title IX, but the March 2005 policy clarification did exactly that. By allowing institutions to use an online survey to demonstrate compliance with Prong Three of Title IX's participation standard, this clarification substantially reduced the pressure on institutions to ensure gender equity by expanding opportunities for women. Past research and basic methodological principles demonstrate that exclusive reliance on such a survey will not fairly reveal the interests and abilities of female athletes (Sabo & Grant, 2005).

Implication #2: Title IX does not need to be reformed to stop large overall decreases in men's athletic participation because such decreases have not occurred.

Debates over Title IX have focused more on maintaining the numerous athletic opportunities that men have historically enjoyed rather than ensuring that women gain access to the opportunities they have been historically denied. Within these debates, some claim that institutions rely heavily on cuts in men's athletic participation to achieve gender equity. The results of this study clearly refute this claim. Recent improvements in gender equity were driven by increases in female participation rather than decreases in men's participation levels. In fact, overall men's participation has increased. For the 10-year/738 NCAA institutions sample, male participation levels grew by around 7,000 athletes between 1995-96 and 2004-05, an average of almost 10 athletes per institution. For the complete four-year/1,895 institutions complete, male participation levels grew by almost 10,000 athletes between 2001-02 and 2004-05, an average of slightly over five athletes per institution.

Implication #3: The debate over Title IX should not be based on the experience of a few individual sports.

Figures for a few specific sports, such as wrestling or tennis, are often used to support claims that men's sports are in serious decline. But such claims would make little sense if participation trends for growing men's sports, such as lacrosse or soccer, are used instead. The policy debate over Title IX must consider the broader experiences of all men's and women's sports and should never be based on data for a few individual sports.

Implication #4: Efforts to analyze and stem reductions in men's sports should focus on Division I-A institutions, the only set of institutions that experienced declines. Future attempts to explain the declines of men's athletic participation at Division I-A institutions should consider institutional policies and practices associated with the "arms race" in athletic spending

This report demonstrates that a reduction in men's sports occurred solely at Division I-A institutions. Given the scale of expenditures within these athletic programs, sufficient funds exist for additional participation opportunities if costs are controlled. Furthermore, the competitive pressures driving the "arms race" in expenditures is most severe at the highest level of competition, as represented by Division I-A of the NCAA, and will likely absorb any additional dollars generated by alternative reforms.

How Are Colleges and Universities Doing? Grading Participation, Documenting Expansion

This report also includes an online portion (available at www.WomensSportsFoundation.org) that enables readers to evaluate and compare each higher education institution's performance in relation to its peers. This component of the study does not provide a comprehensive analysis of gender equity at each institution nor does it seek to determine whether institutions are currently in compliance with Title IX. But it does report figures that contain substantial insight into an institution's commitment to women's athletics. For all figures, conference-level averages are provided to allow for additional comparisons. We present the female share of undergraduates and the female share of athletes for each institution to examine whether the gender composition of an institution's athletes is similar to the gender composition of its student body. To identify institutions of higher education that recently expanded their women's athletic program, we also list the change in the number of women's participants for each institution between 2001-02 and 2004-05. For the 738 institutions in our 10-year NCAA sample,

we also report changes in participation for the 1995-96 to 2001-02 period.

To identify those higher education institutions that have a female share of athletes similar to their female share of undergraduates, we report the proportionality gap for each institution. This gap equals the percentage of undergraduates that are female minus the percentage of athletes that are female. To help provide meaning to an institution's proportionality gap, we assign grades. Table 12 outlines the grading criteria, which assigns the lowest grades to those institutions at which female athletes are substantially underrepresented. To recognize their contribution towards alleviating the

Table 12: Interpreting the Proportionality Gap Report Card

Rank Order	Grade
Proportionality gap* is:	
2 percentage points or less	Α
above 2 but no more than 4 percentage points	A-
above 4 but no more than 6 percentage points	B+
above 6 but no more than 8 percentage points	В
above 8 but no more than 10 percentage points	B-
above 10 but no more than 12 percentage points	C+
above 12 but no more than 14 percentage points	C
above 14 but no more than 16 percentage points	C-
above 16 but no more than 18 percentage points	D+
above 18 but no more than 20 percentage points	D
above 20 but no more than 22 percentage points	D-
above 22 percentage points	F

^{*} The proportionality gap equals an institution's female share of undergraduates minus the institution's female share of athletes.

Table 13: Proportionality Gap Grades by Affiliation

Affiliation/Division*	Prop Gap.	Grade	% Und., Fem.	% Ath. Fem.	# Inst.
NCAA	13.0	С	55.8%	42.8%	964
Div. I	9.5	B-	54.4%	44.9%	321
Div. I-A	7.2	В	51.7%	44.5%	113
Div. I-AA	13.2	C	54.6%	41.4%	113
Div. I-AAA	7.9	В	58.0%	50.1%	83
Div. II	16.2	D+	57.4%	41.2%	261
Div. III	13.9	C	56.0%	42.2%	375
NAIA	15.9	C-	57.6%	41.6%	239
NCCAA	6.9	В	49.3%	42.4%	41
NJCAA	16.3	D+	56.1%	39.8%	431
COA	19.4	D	55.4%	36.0%	95
NWAAC	9.5	B-	54.8%	45.3%	32

^{*} NCAA refers to the National Collegiate Athletic Association; NAIA refers to the National Association of Intercollegiate Athletics; NCCAA refers to the National Christian College Athletic Association; NJCAA refers to the National Junior College Athletic Association; COA refers to the California Community College Commission on Athletics; NWAAC refers to the Northwest Athletic Association of Community Colleges.

current underrepresentation of female athletes in the aggregate, institutions are not assigned a low grade when female athletes are overrepresented.

Table 13 presents proportionality gap grades for each athletic organization and NCAA division; it also provides the data used to compute the grade. For example, the average NCAA institution had a female share of

undergraduates of 55.8% and a female share of athletes of 42.8% in 2004-05, which results in a proportionality gap of 13 percentage points and a grade of C. Among organizations, the NCCAA earned the highest grade, while within the NCAA, Divisions I-A and I-AAA earned the highest grades. In contrast, the NJCAA, COA and NCAA Division II received the worst grades.

The online portion of this report also describes changes in the number of female participants over recent years for each institution of higher education. To provide additional context, we report similar figures for men. Note that changes in cross country and track and field participants are not included in these figures, because participation data for these sports contain substantial error due to changes in the EADA reporting form. As described in Appendix C, however, we were able to obtain much more reliable information on whether or not an institution offers these sports. Consequently, we report changes in the number of cross country and track and field teams to complement the participation numbers for other sports.

Appendix A: Comparison with Alternative Reports

Past research has generated conflicting findings regarding trends in athletic participation levels. A previous Women's Sports Foundation report (Sabo, 1997) and a 2001 Government Accounting Office (GAO) report found similar results to this study. In contrast, a recent College Sports Council (CSC) study and a 1999 GAO report produced contradictory results. Because this report seeks to produce clarity and consensus, it is important to reconcile this report's findings with those of the latter two studies.

The CSC study and the 1999 GAO report are often used to claim that men's participation levels have fallen over time and to suggest that Title IX is the cause of these declines. The analysis below, however, shows that the estimated reductions in men's sports in the CSC study turn into gains once the methodological flaws in the report are corrected. The discussion in this appendix also raises important questions about the quality of the data used by the GAO to report reductions in men's sports.

Furthermore, the findings from these reports suggest that Title IX had little to do with any declines in men's participation levels. In both studies, the one time period in which men's sports appears to have declined is 1984 to 1988, a time during which intercollegiate athletics was exempt from Title IX. In 1984, the Supreme Court ruled (in *Grove City College v. Bell*) that Title IX did not apply to intercollegiate athletics, and it was not until 1988 that Congress passed the Civil Rights Restoration Act, which mandated that intercollegiate athletics be subject to Title IX.

College Sports Council (CSC) Longitudinal Study of NCAA Participation Data (College Sports Council, 2007)

The College Sports Council's (CSC) 2007 study is based on data from the 1981-82 – 2004-05 NCAA Sports Sponsorship and Participation Rates Report. The CSC report presents estimates showing declines in men's sports, and some commentators have claimed that these declines are somehow related to Title IX. But the CSC study incorrectly adjusts for changes in NCAA membership when reporting participation trends and only reports figures for Division I institutions when reporting trends in the number of teams offered. When the flaws in the CSC report are corrected, as demonstrated below, men's athletic participation increases rather than decreases between 1981 and 2004.

The CSC study correctly notes that the data in the NCAA participation report is not designed to accurately portray participation trends because it does not adjust for growth in the number of NCAA institutions over time. The number of NCAA institutions grew from 752 to 1,045 between 1981-82 and 2004-05, so any comparisons over time may reflect the growth in the number of institutions rather than growth in the number of male athletes at specific institutions. To solve this problem, the CSC study essentially estimates the average number of participants per NCAA institution for each year. These estimates appear in Table 3 of the CSC report.

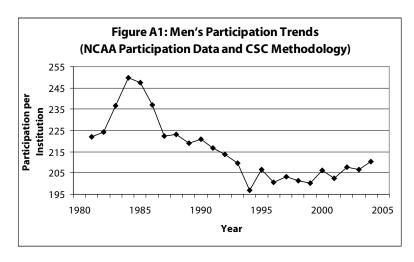
To demonstrate the CSC's method, consider the first and last years of the period of study. The NCAA participation report indicates that there were 167,055 athletes at 752 NCAA institutions in 1981-82 and 219,744 athletes at the 1,045 NCAA institutions in 2004-05. If you divide the number of athletes by the number of institutions for each year, you find that the number of male athletes per institution fell from 222 to 210, a drop of 5.3%.

For such a comparison to be informative, institutions that joined the NCAA over time must have the same number of athletes as the pre-existing NCAA institutions. Put simply, the CSC's analyses assume that the 293 institutions that joined the NCAA after 1981 are identical in size to the 752 institutions that were already NCAA members in 1981. This assumption is unrealistic. A comparison of 2004-05 participation levels (using EADA data) demonstrates that those institutions that were already NCAA members in 1981 have 57% more male athletes, on average, than those institutions that later joined the NCAA between 1982 and 2004.

If pre-existing NCAA institutions have 57% more male athletes than those institutions that joined the NCAA between 1982 and 2004, then figures from the NCAA Participation Report indicate that the number of male athletes increased by 5.5% between 1981-82 and 2004-05. Clearly, the CSC's finding that men's participation has

decreased over time reflects the use of an untrue assumption rather than any real reduction in men's sports. The purported losses in men's participation produced by the CSC study turn to gains once more accurate assumptions are used.

The CSC study also reports (in Table 1 of that study) that the number of men's teams decreased by 239 among NCAA Division I schools between 1988-89 and 2004-05. That information is correctly drawn from the NCAA participation report and does not contradict the findings of this Women's Sports Foundation report. But the



CSC study fails to note that the same NCAA participation report indicates a net increase in the number of men's sports, on net, of 44 for Division II institutions and of 265 for Division III institutions. For the NCAA as a whole (including Division I), the number of men's teams increased by 70 teams. Once again, the figures in the CSC study demonstrate overall increases for men's athletics once accurate overall estimates are provided.

Some commentators have used the findings of the CSC study to claim that Title IX has led to substantial reductions in men's sports. However, this claim is inaccurate because men's sports in the aggregate have not decreased over time. Figure A1 (which uses the same methodology as Table 3 of the CSC study) demonstrates another major problem with such a claim. According to the CSC's estimates, men's participation levels declined the most between 1984 and 1987, a period in which intercollegiate athletics was exempt from Title IX. Thus, even if the CSC estimates of declines in men's participation levels were accurate, it would be quite difficult to argue that these reductions were due to Title IX.

Intercollegiate Athletics: Comparison of Selected Characteristics of Men's and Women's Programs (General Accounting Office, 1999)

This General Accounting Office (GAO) report examines changes between the 1985-86 and 1996-97 period for a consistent sample of 725 NCAA institutions. The results indicate a decrease in the total number of men's participants of 21,404 and a decrease in the total number of men's teams of 183. These findings are in direct contrast to the findings presented in this Women's Sports Foundation report.

A close reading of the GAO report presents several explanations for the contrasting findings. The first explanation regards the quality of data used in the GAO study. The GAO only had access to aggregate data for each NCAA division and sport, so it could not identify and correct for potential flaws in the data. (See appendixes B and C for the corrections utilized in this report.) Furthermore, the GAO did not appear to have data on every athlete at each institution, since data on sports with less than 10 participating teams were not included in the report.

A comparison of the GAO report's findings with figures from the 1981-82 NCAA Sports Sponsorship and Participation Rates Report creates additional concerns about data quality. Most of the 21,404 athlete decrease in men's participation levels was due to decreases in the average roster sizes for almost all men's sports. Table A1 recreates the roster size estimates found in the GAO report for 1985-86 and 1996-97, the only two years of study in the GAO report.

Table A1 (on following page) also contains the average roster size reported by the NCAA Participation Report for 1985-86, 1987-88, and 1996-97 academic years. The changes in roster size between 1985-86 and 1996-97 for the NCAA and GAO reports are almost identical, which is not surprising because the GAO used data provided

by the NCAA. But what is surprising is that almost all of the decrease in average roster sizes in the NCAA participation report occurred during the first two years of the period, 1985-86 to 1987-88. Because these drops in roster size are extremely severe for a two-year period, much of the decrease in men's athletics may reflect changes in reporting requirements rather than a drastic restructuring of men's athletics.

Table A1: Comparison of Findings from the NCAA Participation Report and the 1999 GAO report								
	GAO	GAO (1999) Report			NCAA Participation Report			
	1985-86	1996-97	Change	1985-86	1987-88	1996-97	Change	
Baseball	34.1	29.7	-4.4	33.9	28.9	30.2	-3.7	
Basketball	18.3	16.0	-2.3	18.4	15.9	16.0	-2.4	
Cross-Country	14.6	13.2	-1.4	14.5	13.4	12.9	-1.6	
Football	100.0	91.3	-8.7	99.7	92.6	91.6	-8.1	
Golf	12.3	10.8	-1.5	12.2	11.2	10.8	-1.4	
Ice Hockey	37.6	28.9	-8.7	37.5	30.7	28.1	-9.4	
Lacrosse	36.5	31.6	-4.9	36.2	31.6	31.3	-4.9	
Soccer	29.4	25.2	-4.2	29.3	24.9	25.0	-4.3	
Swimming	21.8	20.6	-1.2	21.8	20.5	19.7	-2.1	
Tennis	12.2	10.5	-1.7	12.1	11.0	10.3	-1.8	
Track (indoor)	34.3	31.4	-2.9	34.2	31.7	31.1	-3.1	
Track (outdoor)	34.7	31.3	-3.4	34.5	32.1	30.9	-3.6	
Volleyball	15.9	14.5	-1.4	16.0	14.9	15.0	-1.0	
Wrestling	26.5	25.2	-1.3	26.5	24.3	26.3	-0.2	

In the event that the GAO estimates accurately reflect changes in men's participation levels, then most of the reductions in men's sports had little to do with Title IX. Intercollegiate athletics was exempt from Title IX between 1985-86 and 1987-88, the period in which most of the decreases in men's athletics appear to have occurred. Thus, as was the case with the 2007 CSC study, the main findings and conclusions of the 1999 GAO study do not appear to contradict those of this Women's Sports Foundation report.

Appendix B: Sample Overview and Data Corrections

Sample Overview

The data used in this report came from reports filed by institutions of higher education under the Equity in Athletics Disclosure Act (EADA). Passed in 1994, the EADA required institutions to report a variety of information on their athletic program. (See http://surveys.ope.ed.gov/athletics/ to examine the current EADA reporting form.) Starting in 1995-96, the EADA mandated that institutions must report data to any party that requests it directly from them. In 1995-96, the Women's Sports Foundation requested information from each NCAA institution, and 757 of them returned completed EADA forms. The data from these forms were hand entered into an electronic format, and the original forms were retained and are currently located at the Center for the Study of Higher Education at the University of Arizona. These data can be obtained by contacting the author of the report at cheslock@u.arizona.edu.

Starting in 2000-01, institutions were required to send EADA information to the Office of Postsecondary Education (OPE). Full EADA data from these years can be downloaded from the OPE's EADA Web site: http://ope. ed.gov/athletics/. For 2001-02, 1,948 higher education institutions reported data to the OPE. In 2004-05, 1,978 institutions reported data to the OPE.

Two samples were used throughout this report. The "10-year NCAA sample" contains the 738 institutions that reported data in 1995-96, 2001-02 and 2004-05 and were members of the NCAA for all three years. These schools comprised 74% of NCAA institutions in 1995-96 and 71% of NCAA institutions in 2004-05. The four-year complete sample contains the 1,895 schools that reported data to the OPE for 2001-02 and 2004-05.

Data Corrections

Several errors in the EADA data required correction. First, the 2001-02 EADA dataset was missing data for nine of the less prominent women's sports (archery, badminton, beach volleyball, bowling, equestrian, rodeo, sailing, table tennis, weight lifting). Institutions that offered teams for these sports were easily identifiable because the sum of participants on each individual sport did not equal the total number of participants reported. For each of these institutions, we examined later EADA data (which was not missing information) or the relevant athletic department's Web site to identify the missing sport and assigned the extra participants appropriately.

Second, the EADA form allowed an institution to choose among 16 different organizational and division affiliations. Some of the resulting data, however, contained errors or insufficient information. To correct for data entry errors, we examined all institutions that switched affiliations over time to ensure that their movement reflected real changes as opposed to an incorrect entry for one of the years. Because the EADA form does not include a complete list of athletic organizations to choose from, approximately 240 institutions chose a category labeled "Other." Most of these institutions belonged to the COA, NWAAC or other smaller organizations, and we assigned these institutions after some investigation.

The third data correction relates to measuring the percentage of undergraduates that are female. Ideally, one should use data on the total full-time undergraduate enrollments for both genders. Unfortunately, the enrollment figures reported under the EADA are usually incorrect. As a result, we obtained correct figures for each year from the Integrated Postsecondary Education Data System (IPEDS) produced by the National Center for Education Statistics (NCES). These data can be downloaded from NCES's IPEDS Web site (http://nces.ed.gov/ipeds/).

The reporting form for the EADA changed over time in two important ways; this required two further corrections to the data. The first change regards reporting standards for cross country, indoor track and field, and outdoor track and field. Appendix C contains a description of the complexity associated with these sports. The other change regards coed teams. The 1995-96 form did not force institutions to report the gender breakdown of participants of coed teams, while the 2001-02 and 2004-05 forms did. To allocate the co-ed team participants for 1995-96, we used the same percentage of males and females for the 1995-96 teams as that in 2001-02 when data

was available for that sport at that institution. If 2001-02 information was not available, we simply assigned 50% of males and 50% of females to the individual sports.

Finally, we took great care to ensure that our results were not unduly influenced by extremely small teams or athletic programs. We only listed an institution as adding a sport if it moved from zero athletes to four or more athletes over time. Likewise, an institution was only counted as dropping a sport when it moved from four or more athletes to zero athletes over time. To ensure that extremely small athletic programs were not driving our compliance estimates, we also estimated all proportionality gap figures using only those institutions with at least 50 athletes within their athletic department. When this alternative sample was used, the results varied little from those reported in this study.

Appendix C: Cross Country and Track and Field

Because the EADA reporting form changed over time for cross country, indoor track and field, and outdoor track and field, a simple comparison of reported figures for these sports over time would produce incorrect findings. Table C1 presents the per-institution participation figures for these three sports. These drastic changes over time were not observed in the 1981-82 NCAA Sports Sponsorship and Participation Rates Report, suggesting that these trends were due to changes in reporting

Table C1: Reported Per-Institution Participants in Cross Country and Track & Field (10-year/738 NCAA institutions sample)

	1995-96	2001-02	2004-05
Men	33.7	51.2	47.9
Women	29.3	50.3	49.4

standards rather than any fundamental change in these three sports.

An inspection of the EADA data entry forms (which changed over time) provided an explanation for these findings. The structure of the 1995-96 form encouraged the data entrant to report the unduplicated number of participants for indoor and outdoor track and field. The unduplicated count of participants (where a multi-sport athlete is only counted once) is likely to be substantially less than the duplicated count (where a multi-sport athlete is counted once for each team for which he/she participates). The 2001-02 form, in contrast, was much more likely to elicit reporting of duplicated counts. Finally in 2004-05, the structure of the form again led to reporting of some unduplicated counts of athletes in cross country and the two track and field sports, although errors were much less prevalent in 2004-05 than in 1995-96.

To ensure accurate findings, we used data from multiple sources in addition to the EADA to produce the best possible estimates of participation trends for these three sports. For most major athletic associations (NCAA, NAIA, NJCAA, COA), we created a list of all institutions that offered each of the three sports using available publications or data provided directly by the organization. For cases outside of these associations, we examined the Web site for each institution's athletic department when needed. In combination with the EADA data, these data lists allowed us to accurately estimate changes in individual sports.

Estimating changes in participation levels was more complicated because roster sizes can vary over time. The change in participation levels was computed by:

- adding the number of athletes on teams that were added during the period; and
- subtracting the number of athletes on teams that were dropped during the period; and
- adding the number of teams offered throughout the period multiplied by the average change in roster size.

A much longer version of Appendix C, which describes the procedure in great detail, is available from the author upon request. In general, the author spent great effort ensuring that this report did not overestimate increases in the number of participants and teams, especially for men. All methods were designed to err on the side of underestimating gains in the number of participants and teams. All findings for cross country and track and field were checked against those reported in the 1981-82 NCAA Sports Sponsorship and Participation Rates Report, and no discrepancies were found. Finally, all analyses presented in this report were also conducted without data from cross country and the two track and field sports. In every instance, the primary findings of this report remained when these sports were not included.

Appendix D: Title IX and Athletics

In order to comply with the athletic requirements of Title IX, educational institutions must meet the requirements of three areas:

1. Participation

The first compliance prong of Title IX deals with overall sport and athletic participation offerings available for men and women. A three-part test for participation opportunities determines if institutions provide female and male students with equal athletic opportunities. In order to comply, institutions must pass one of these three tests:

- a. Prong One: Proportionality-male and females participate in athletics in numbers substantially proportional to their respective enrollments in school, or
- b. Prong Two: History and Continued Practice of Program Expansion-the institution shows a history and continuing practice of program expansion which is demonstrably responsive to the developing interests and abilities of members of the underrepresented sex, or
- c. Prong Three: Full Accommodation of Interests and Abilities- the institution demonstrates that the interests and abilities of the underrepresented sex (females) are fully and effectively accommodated by the existing programs.

An institution fulfills the compliance requirement for participant opportunities if it adheres to any (or just one) of the three tests listed above.

2. Athletic Financial Assistance

The second major compliance prong of Title IX encompasses athletic financial assistance. The only monetary requirement of Title IX deals with the area of scholarships. Scholarships must be allocated in proportion to the number of female and male students participating in intercollegiate athletics. Funding for women's and men's programs does not have to be equal, but a significant disparity in funds does suggest that institutions could be found non-compliant in other program areas.

3. Other Program Areas (Treatment of Athletes)

The third compliance prong of Title IX requires equivalence in other athletic benefits and opportunities and includes all other program areas not previously covered (OCR, Policy). Title IX does not require that each men's and women's team receive exactly the same services and supplies, but it looks at the entirety of the treatment the men's and women's programs receive as a whole. The equivalence of overall treatment is measured on the basis of eleven criteria:

- a. Locker Rooms, Practice, and Competitive Facilities looks at the quality, maintenance, and availability of the facilities provided for practice and competitive events, the exclusivity of use of the facilities and the preparation of facilities for games and practices, availability, exclusivity, and quality of locker and team rooms.
- b. Equipment and Supplies is determined in examining the quality, amount, suitability, maintenance and replacement, and availability of equipment and supplies.
- c. Scheduling of Games and Practice Times is based on the number of competitive events offered per sport, the number and length of practice opportunities, the time of day for practice sessions, the number of pre-season and post-season competitive opportunities, and the time of day competitive events are scheduled.
- d. Publicity encompasses the availability and quality of sports information personnel, access to other publicity resources for men's and women's programs, and quantity and quality of publications and other promotional devices featuring men's and women's programs.
- e. Coaching examines the equivalence in the availability of qualified full-time and part-time coaches, assistant coaches, and graduate assistants, assignment of coaches with comparable training, experience, and other professional qualifications, equitable compensation of coaches: rate of compensation,

- duration of contract, conditions for contract renewal; (taking into account experience, duties, and working conditions).
- f. Travel and Daily Allowance encompasses modes of transportation, housing furnished during travel, length of stay before and after competitive events, daily allowance provided to the teams, and dinning arrangements for the teams.
- g. Academic Tutoring includes the availability of tutoring for the women's and men's programs, qualifications, training and experience of tutors provided, employment conditions of the tutors for the men's and women's programs including compensation, term and length of contracts, and the number of students tutored per session.
- h. Provision of Medical Training Facilities and Services includes the availability of medical personal and assistance including health, accident, and injury insurance coverage, availability and quality of weight training and conditioning facilities, and availability and qualifications of athletic trainers.
- i. Provision of Housing and Dining Facilities and Service pertains to housing provided, and special services, such as laundry facilities, parking spaces, and housekeeping services.
- j. Recruitment of Student Athletes refers to whether coaches and athletic personnel serving female and male athletes are provided with substantially equal opportunities to recruit, whether the financial and other resources made available for recruitment meet the needs of the women's and men's programs, whether the differences in benefits, opportunities, and treatment of prospective women and men athletes affect their recruitment.
- k. Support Services includes the amount of administrative, secretarial, and clerical assistance provided to the women's and men's programs.

For more detailed information of the compliance criteria under Title IX, please read the Women's Sports Foundation guide, Playing Fair, at www.WomensSportsFoundation.org.

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