

Figure 5 - Baseball
Home and Away Game Injury Rates

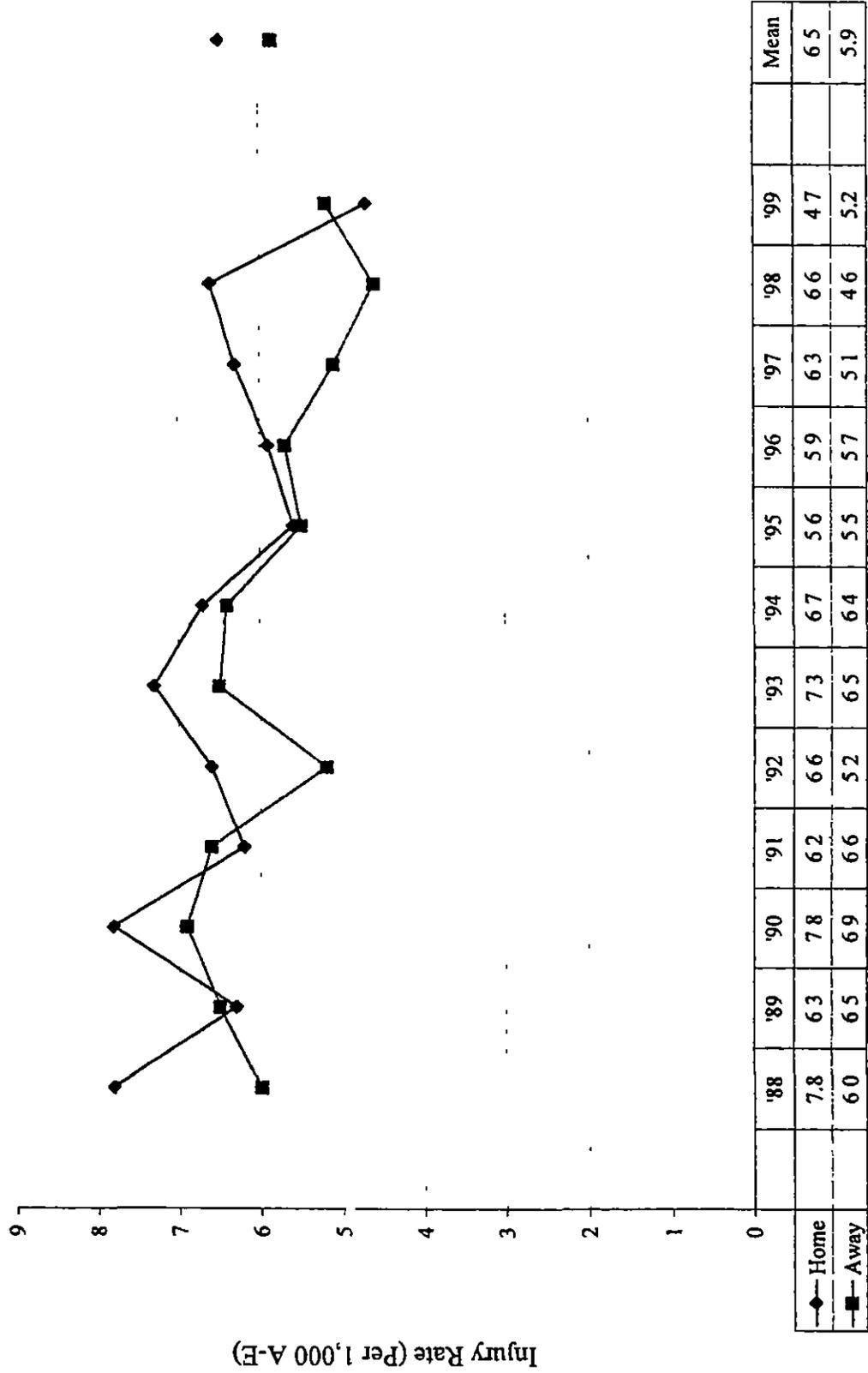


Figure 6 - Baseball
Game Surface Injury Rates

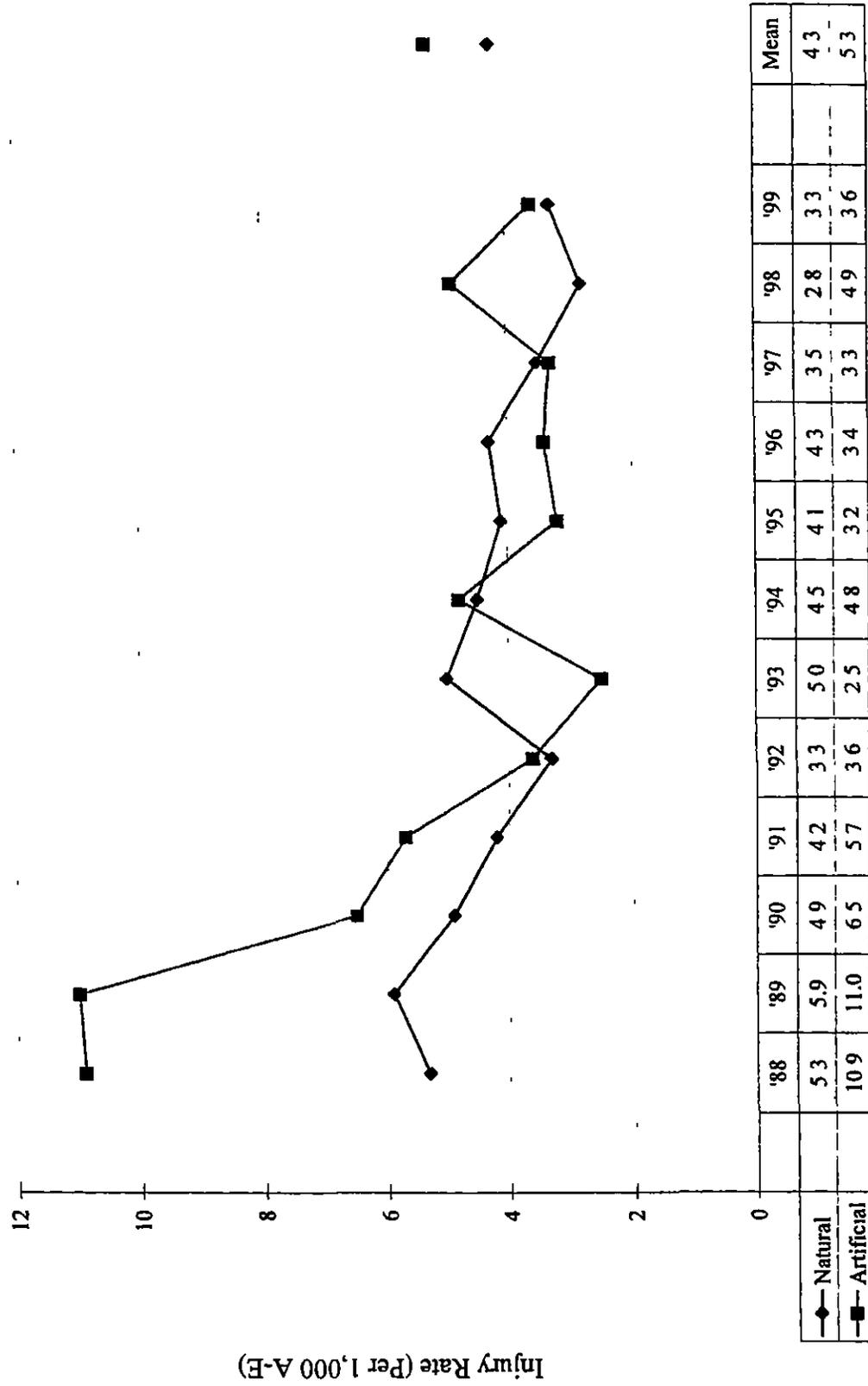


Figure 7 - Baseball
Practice and Game Injury Rates
All Schools

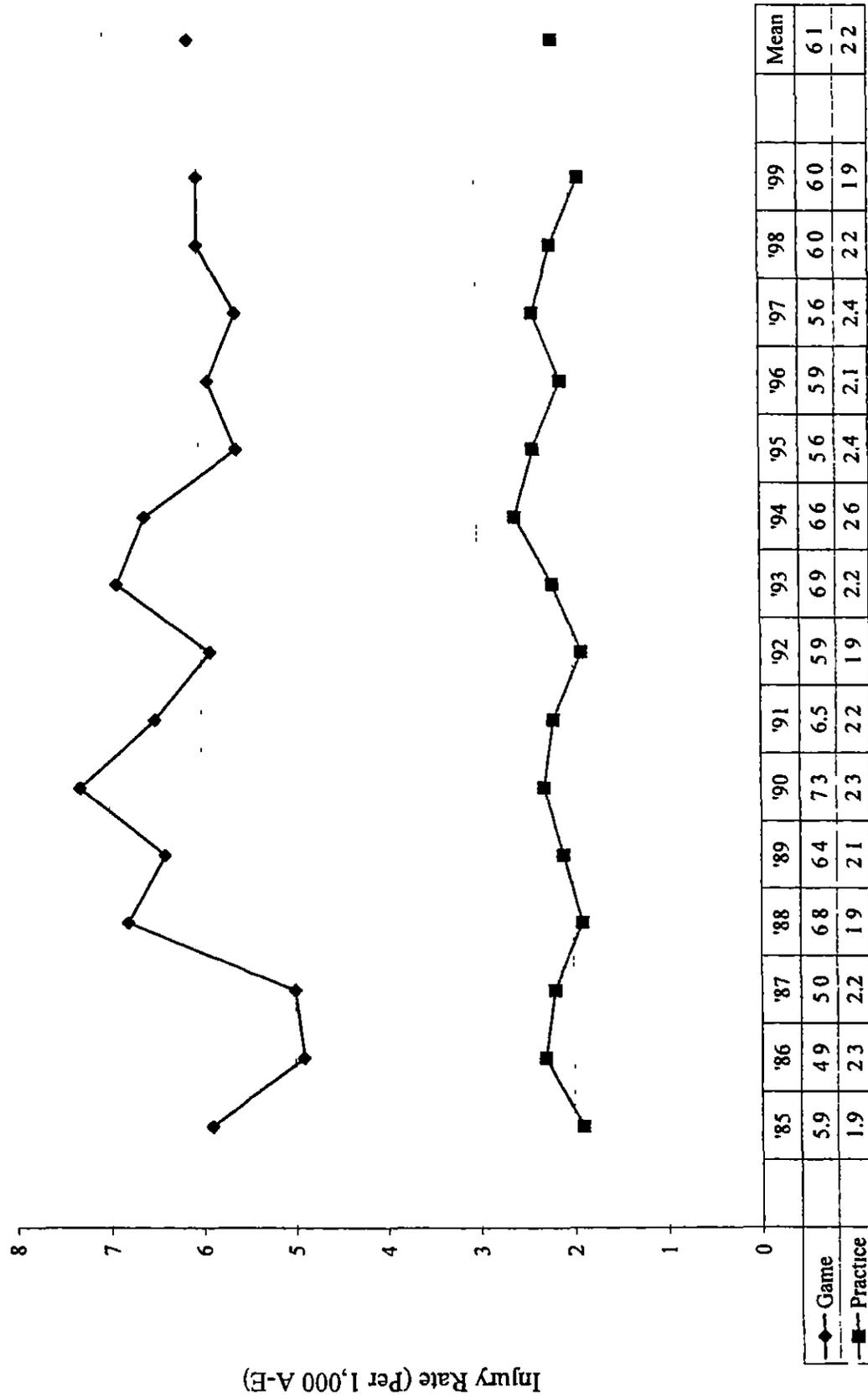


Figure 8a - Baseball
Time-Loss Injury Percentages
Total (Practice and Game)
Restricted or no participation

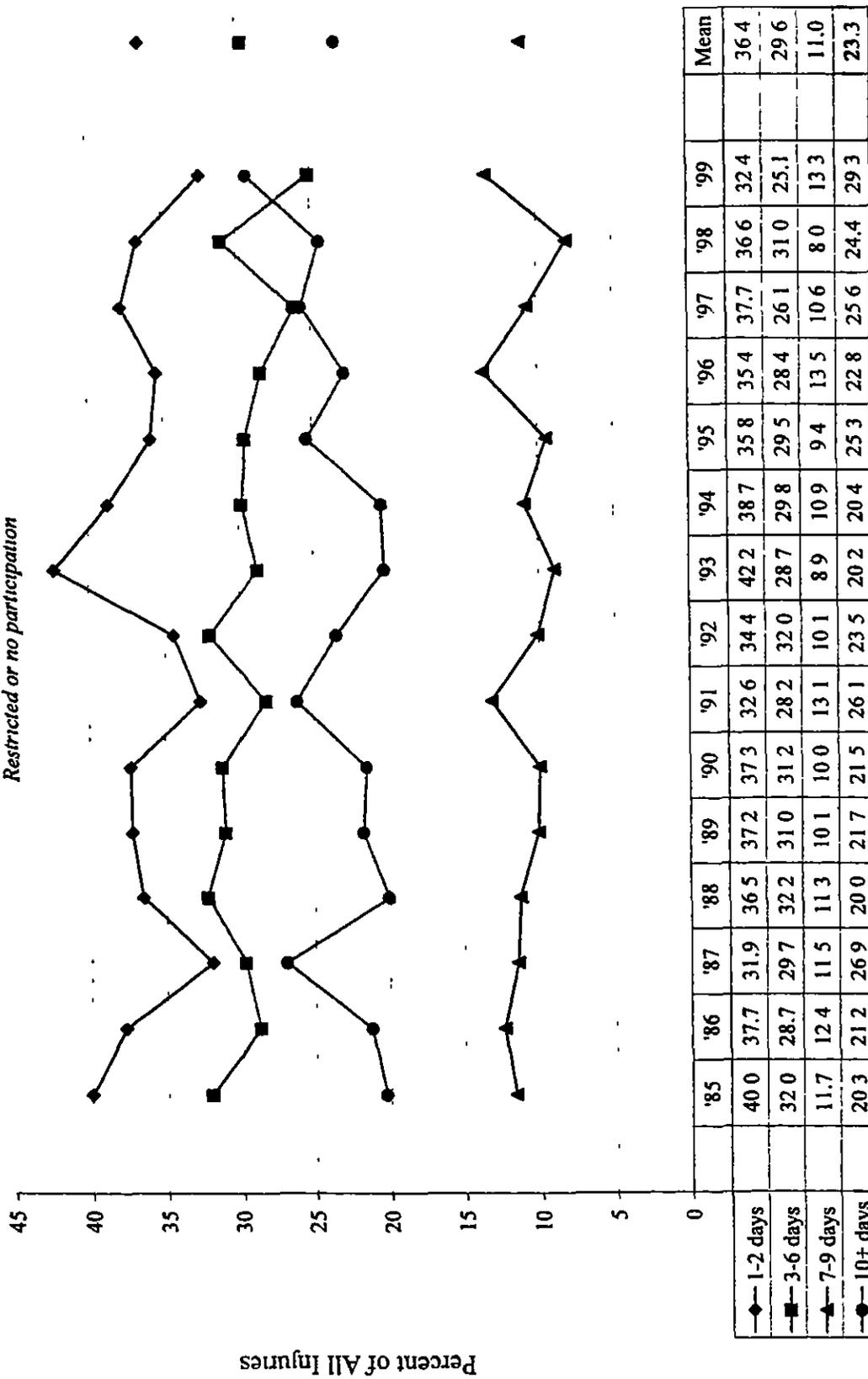
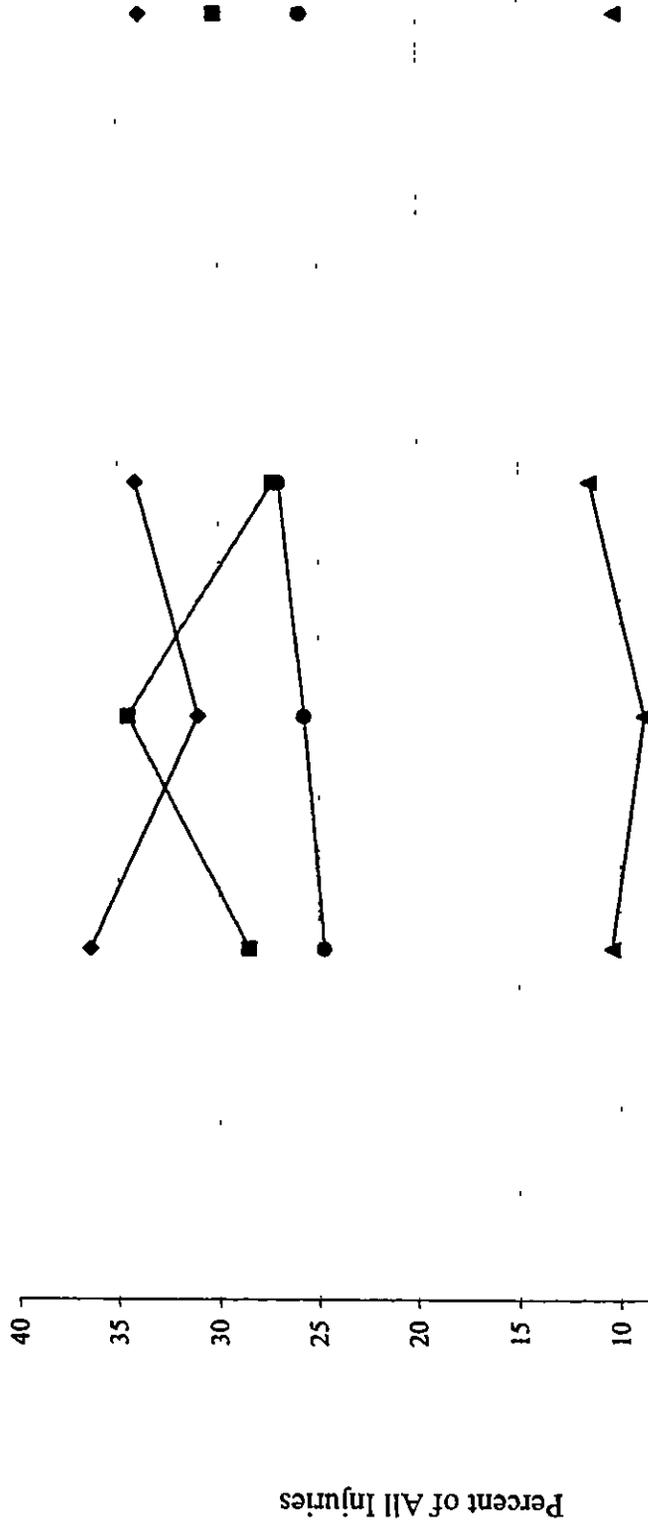


Figure 8b - Baseball
Time-Loss Injuries - Practice
Restricted or no participation



	'97	'98	'99	Mean
1-2 days	36.4	31.0	34.1	33.8
3-6 days	28.5	34.5	27.3	30.1
7-9 days	10.4	8.8	11.5	10.2
10+ days	24.7	25.7	27.0	25.8

Figure 8c - Baseball
Time-Loss Injuries - Game
Restricted or no participation

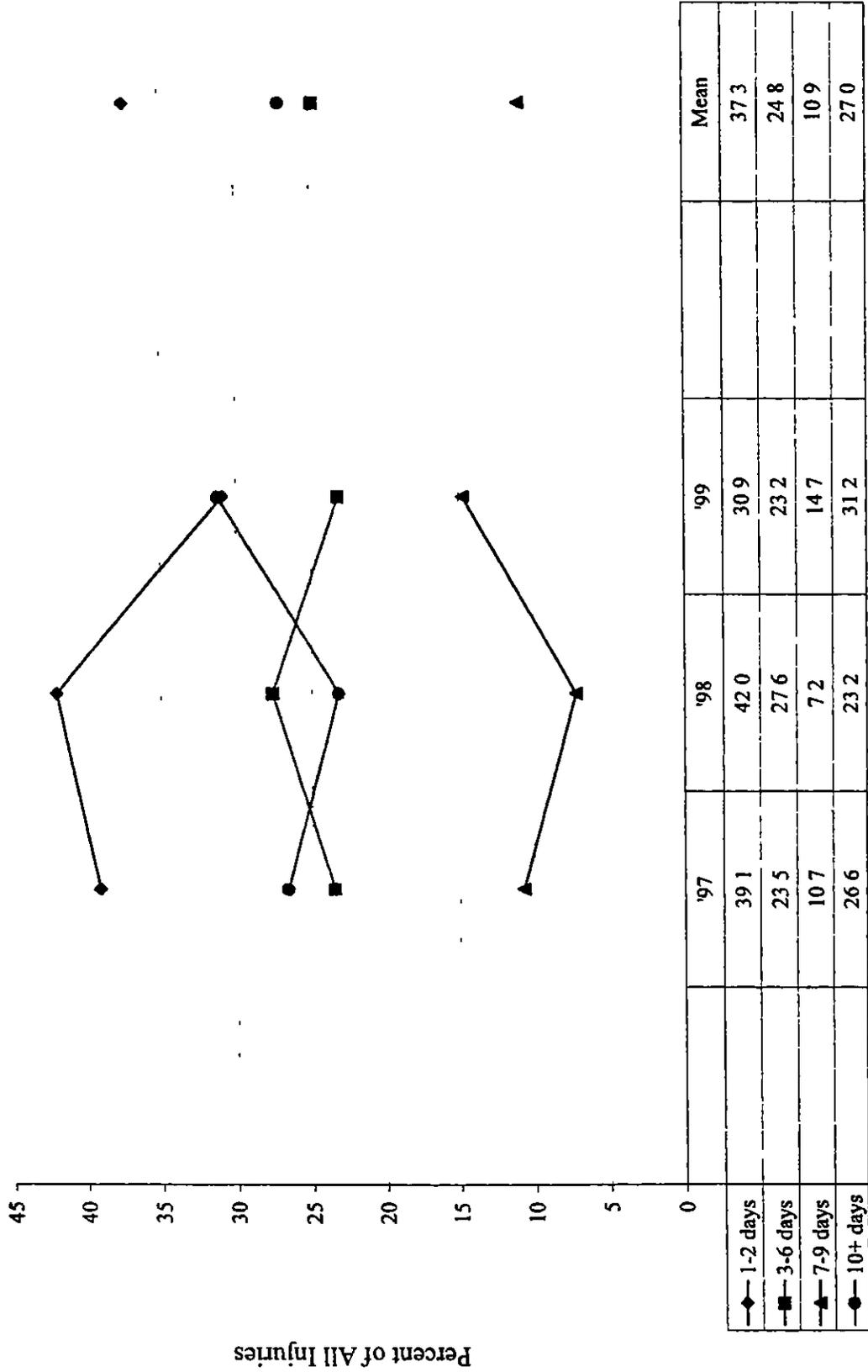
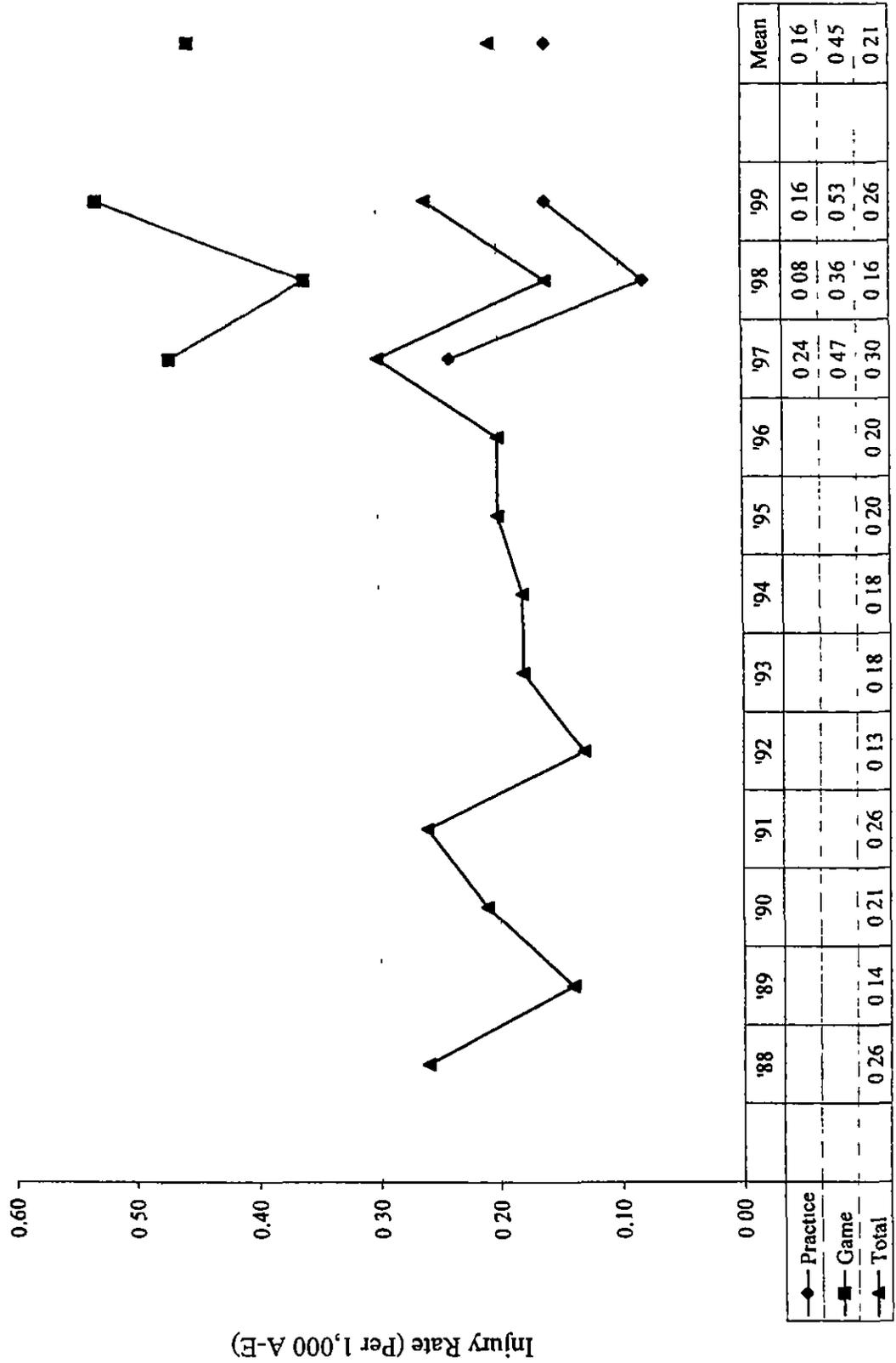


Figure 9 - Baseball
Injuries Requiring Surgery



Baseball - Table 2
Top Three Body Parts Injured

Year	No of Teams	Practice			Game			No Inj	% Total Injuries
		1st	2nd	3rd	1st	2nd	3rd		
1999-00	151	Shoulder	Elbow	Ankle	Shoulder	Elbow	Upper Leg	483	11%
1998-99	92	Shoulder	Upper Leg	Elbow	Shoulder	Ankle	Upper Leg	293	11%
1997-98	94	Shoulder	Elbow	Ankle	Shoulder	Upper Leg	Knee	289	8%

Year	No of Teams	Practice			*Total (Practice & Game)		
		1st	2nd	3rd	1st	2nd	3rd
1996-97	110	Shoulder	Elbow	Upper Leg	Shoulder	Elbow	Upper Leg
1995-96	98	Shoulder	Elbow	Upper Leg	Shoulder	Elbow	Upper Leg
1994-95	67	Shoulder	Elbow	Upper Leg	Shoulder	Elbow	Upper Leg
1993-94	84	Shoulder	Upper Leg	Elbow	Shoulder	Elbow	Upper Leg
1992-93	108	Shoulder	Elbow	Ankle	Shoulder	Elbow	Upper Leg
1991-92	90	Shoulder	Upper Leg	Ankle	Shoulder	Elbow	Upper Leg
1990-91	111	Shoulder	Elbow	Upper Leg	Shoulder	Elbow	Upper Leg
1989-90	81	Shoulder	Upper Leg	Ankle	Shoulder	Elbow	Upper Leg
1988-89	72	Shoulder	Ankle	Upper Leg	Shoulder	Elbow	Upper Leg
1987-88	85	Shoulder	Elbow	Ankle	Shoulder	Elbow	Upper Leg
1986-87	99	Shoulder	Ankle	Upper Leg	Shoulder	Elbow	Upper Leg
1985-86	48	Shoulder	Upper Leg	Ankle	Shoulder	Elbow	Upper Leg

*Total (Practice & Game)

Year	No of Teams	Practice			*Total (Practice & Game)		
		1st	2nd	3rd	1st	2nd	3rd
1996-97	659	Shoulder	Elbow	Upper Leg	Shoulder	Elbow	Upper Leg
1995-96	617	Shoulder	Elbow	Upper Leg	Shoulder	Elbow	Upper Leg
1994-95	486	Shoulder	Elbow	Upper Leg	Shoulder	Elbow	Upper Leg
1993-94	529	Shoulder	Upper Leg	Elbow	Shoulder	Elbow	Upper Leg
1992-93	582	Shoulder	Elbow	Ankle	Shoulder	Elbow	Upper Leg
1991-92	602	Shoulder	Upper Leg	Ankle	Shoulder	Elbow	Upper Leg
1990-91	772	Shoulder	Elbow	Upper Leg	Shoulder	Elbow	Upper Leg
1989-90	525	Shoulder	Upper Leg	Ankle	Shoulder	Elbow	Upper Leg
1988-89	451	Shoulder	Ankle	Upper Leg	Shoulder	Elbow	Upper Leg
1987-88	539	Shoulder	Elbow	Ankle	Shoulder	Elbow	Upper Leg
1986-87	589	Shoulder	Ankle	Upper Leg	Shoulder	Elbow	Upper Leg
1985-86	359	Shoulder	Upper Leg	Ankle	Shoulder	Elbow	Upper Leg

Baseball - Table 3
Top Three Types of Injuries

Year	No of Teams	Practice			Game			% Total Injuries
		No Inj	% Total Injuries	% Total Injuries	1st	2nd	3rd	
1999-00	151	414	30%	23%	Strain	Sprain	Tendinitis	12%
1998-99	92	284	37%	17%	Strain	Sprain	Contusion	12%
1997-98	94	316	34%	16%	Strain	Sprain	Contusion	9%
		No Inj			Strain	Contusion	Sprain	
		483		24%	Strain	Contusion	Sprain	19%
		293		27%	Strain	Sprain	Contusion	23%
		289		30%	Strain	Sprain	Contusion	18%

Year	No of Teams	Practice			Game			% Total Injuries
		No Inj	% Total Injuries	% Total Injuries	1st	2nd	3rd	
1996-97	110	659	32%	18%	Strain	Sprain	Contusion	13%
1995-96	98	617	36%	16%	Strain	Sprain	Contusion	12%
1994-95	67	486	31%	15%	Strain	Sprain	Contusion	14%
1993-94	84	529	31%	18%	Strain	Contusion	Sprain	15%
1992-93	108	582	27%	18%	Strain	Sprain	Contusion	16%
1991-92	90	602	33%	17%	Strain	Sprain	Contusion	13%
1990-91	111	772	32%	16%	Strain	Sprain	Contusion	15%
1989-90	81	525	38%	17%	Strain	Sprain	Contusion	14%
1988-89	72	451	26%	21%	Strain	Sprain	Contusion	13%
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*Total (Practice & Game)

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ALL SPORTS INJURY SUMMARY

Figure Nos. 1-3 compare the practice, game and combined injuries across sixteen sports without regard to severity. Comparisons of injury rates between sports are difficult because each sport has its own unique schedule and activities. If such comparisons are necessary, it may be best to use the game data for which the intensity variable is most consistent.

Figure Nos. 4-7 examine two measures of severity found in the ISS-time loss and injuries that required surgery. These data are presented to assist in decision regarding appropriate medical coverage for a sport, however, each severity category has some limitations that should be considered.

1. Time loss – Figure Nos 4 and 5 evaluate the practice and game rates of reported injuries that caused restricted or loss of participation of seven days or more. Limitation to this type of severity evaluation include:
 - a. an injury that restricts participation in one sport may not restrict participation in another sport and
 - b. injuries that occur at an end of the season can only be estimated with regard to time loss

2. Injuries that require surgery -- Figure Nos 6 and 7 evaluate the practice and game rates of reported injuries that required either immediate or post-season surgery. Limitations to this severity evaluation include:
 - a. The changing nature of surgical techniques and how they are applied.
 - b. The assumption that all sports had access to the same quality of medical evaluation.
 - c. Injuries can occur that may be categorized as severe, such as concussions, that may not require surgery

Figure 1
Practice Injury Rate Summary
1997-98 and 1998-99 Seasons

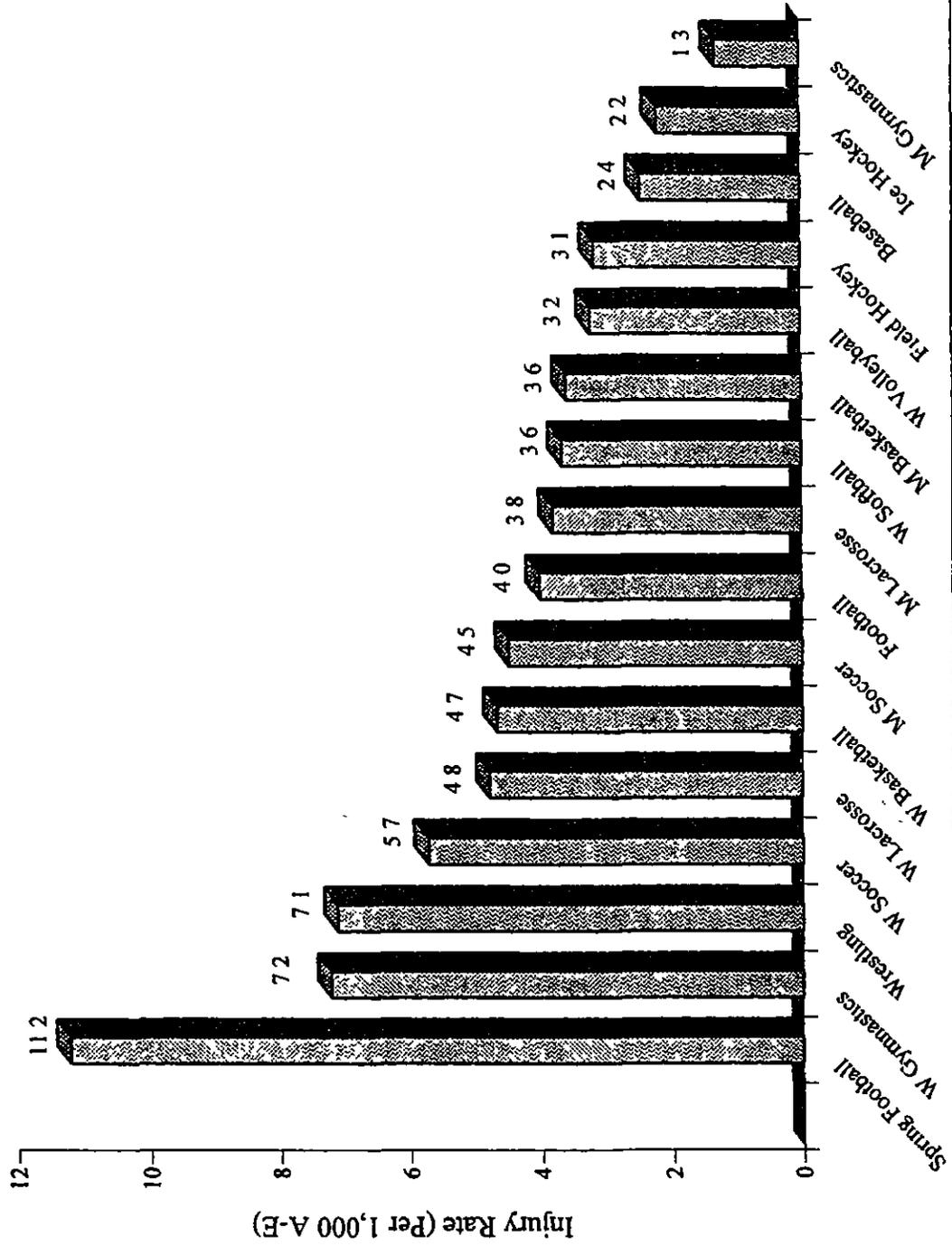


Figure 2
Game Injury Rate Summary
1997-98 and 1998-99 Seasons

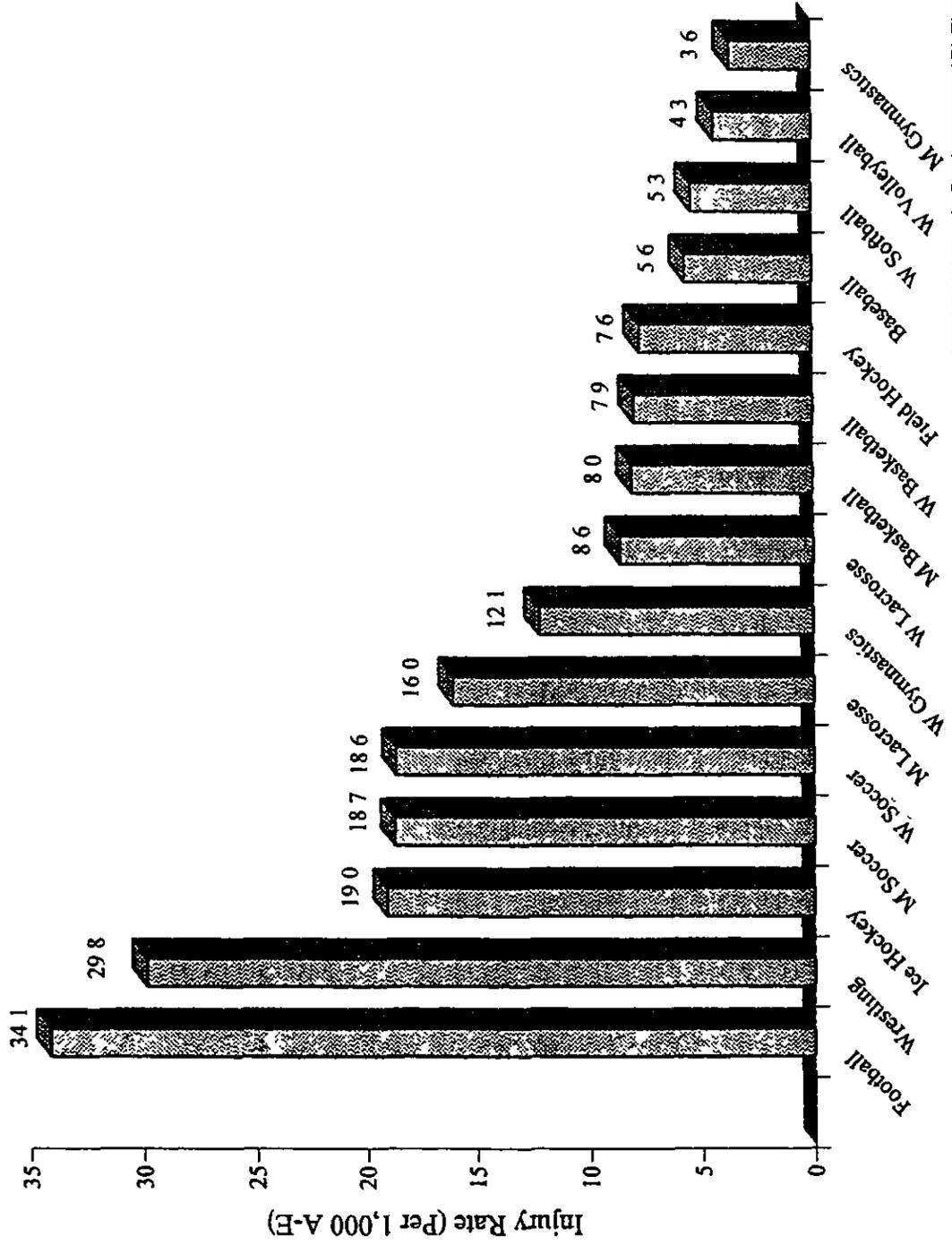


Figure 3
Percent Injury - Practice (dark) and Game (white)
1997-98 and 1998-99 Seasons

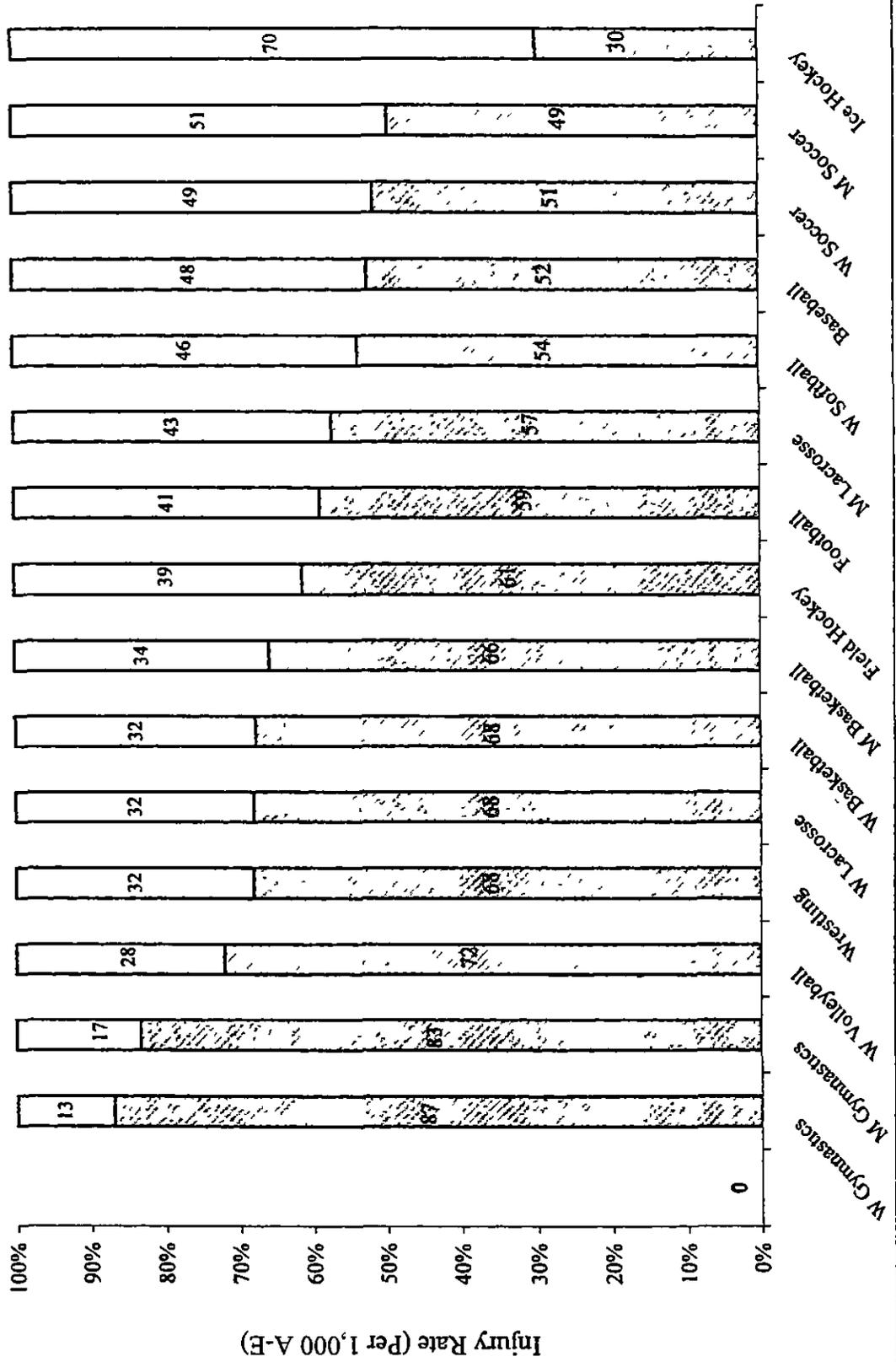


Figure 4
Severity - Time Loss (7 + days) Injury Rate in Practice
1997-98 and 1998-99 Seasons

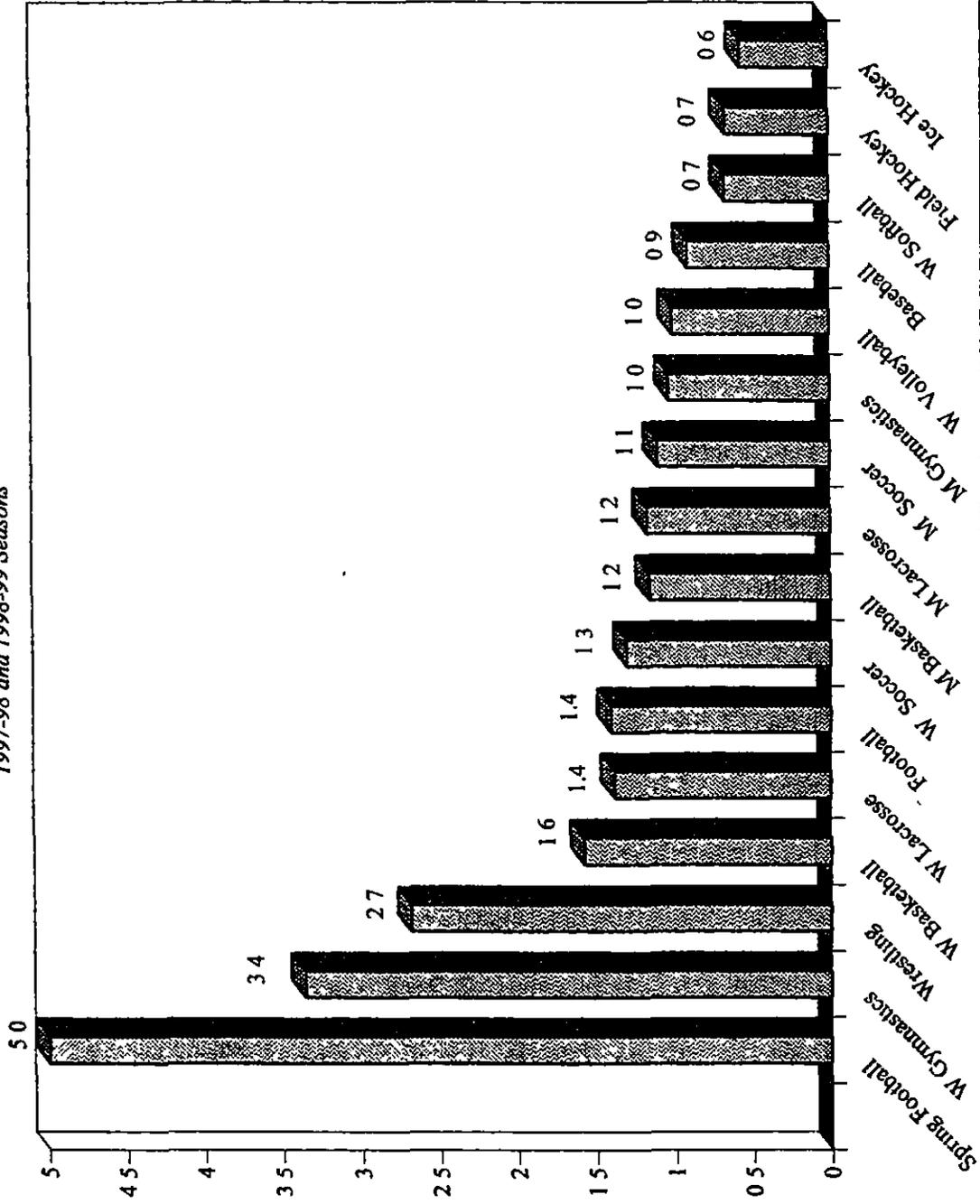


Figure 5
Severity - Time Loss (7 + days) in Games
1997-98 and 1998-99 Seasons

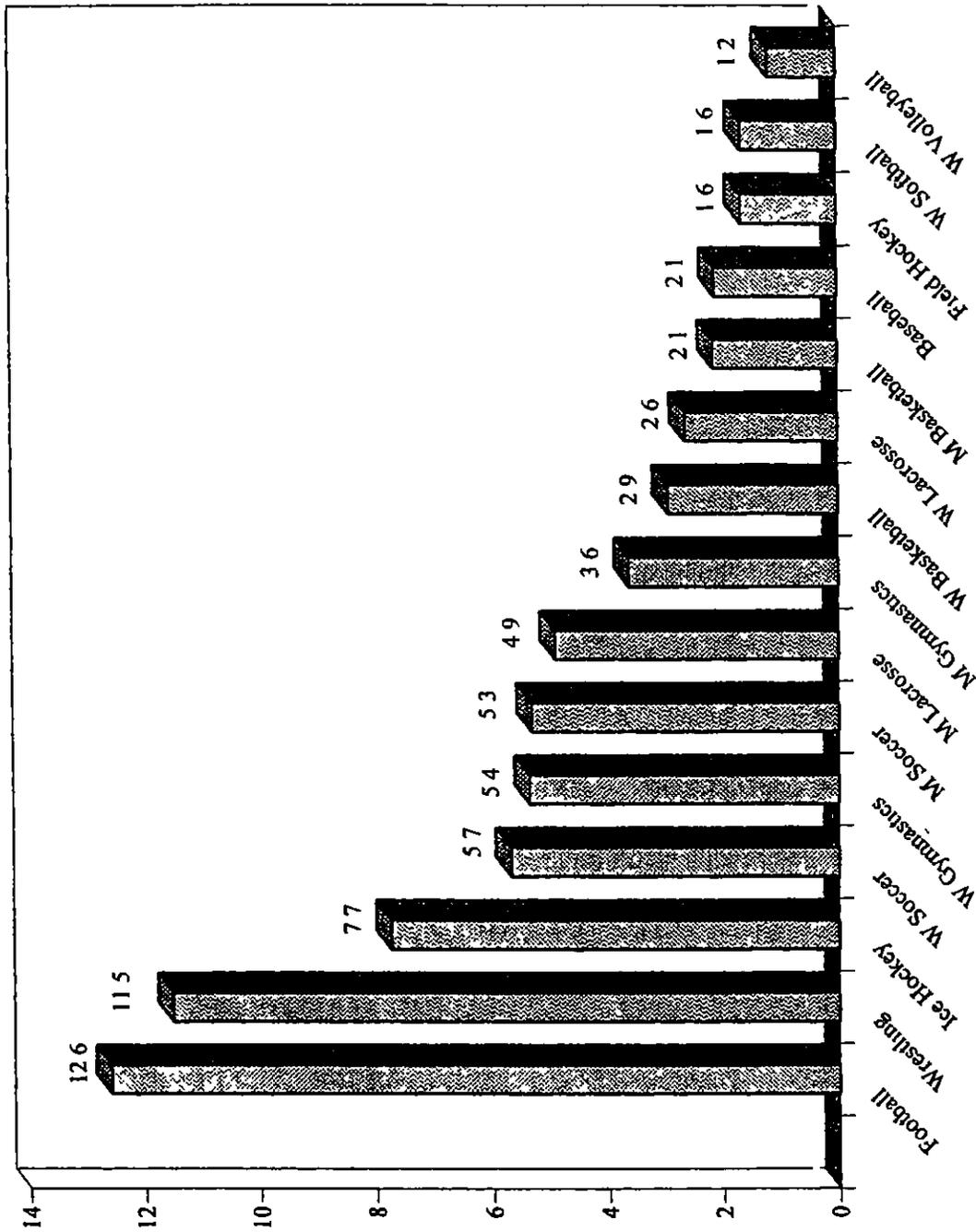


Figure 6
Severity - Surgery Injury Rate in Practice
1997-98 and 1998-99 Seasons

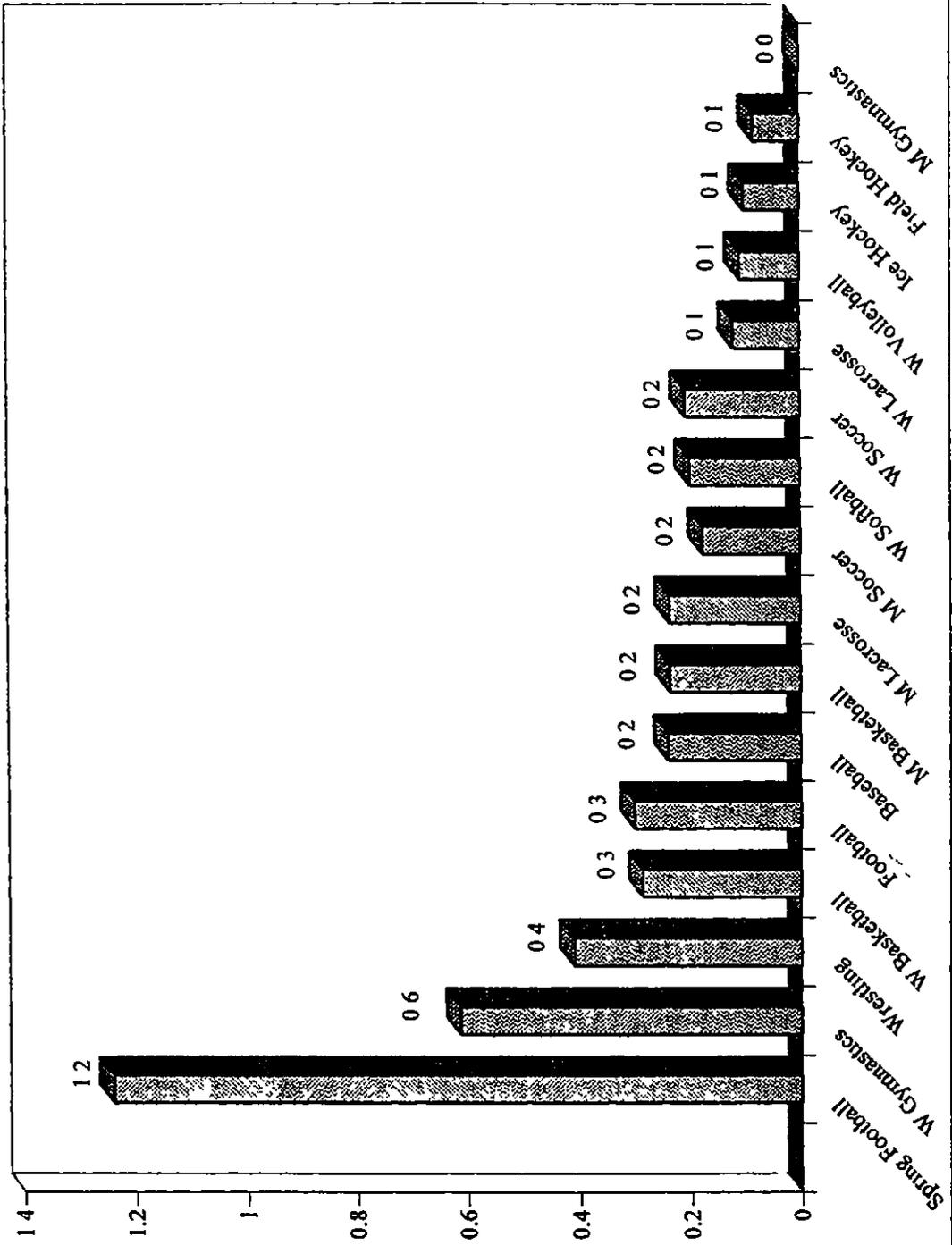
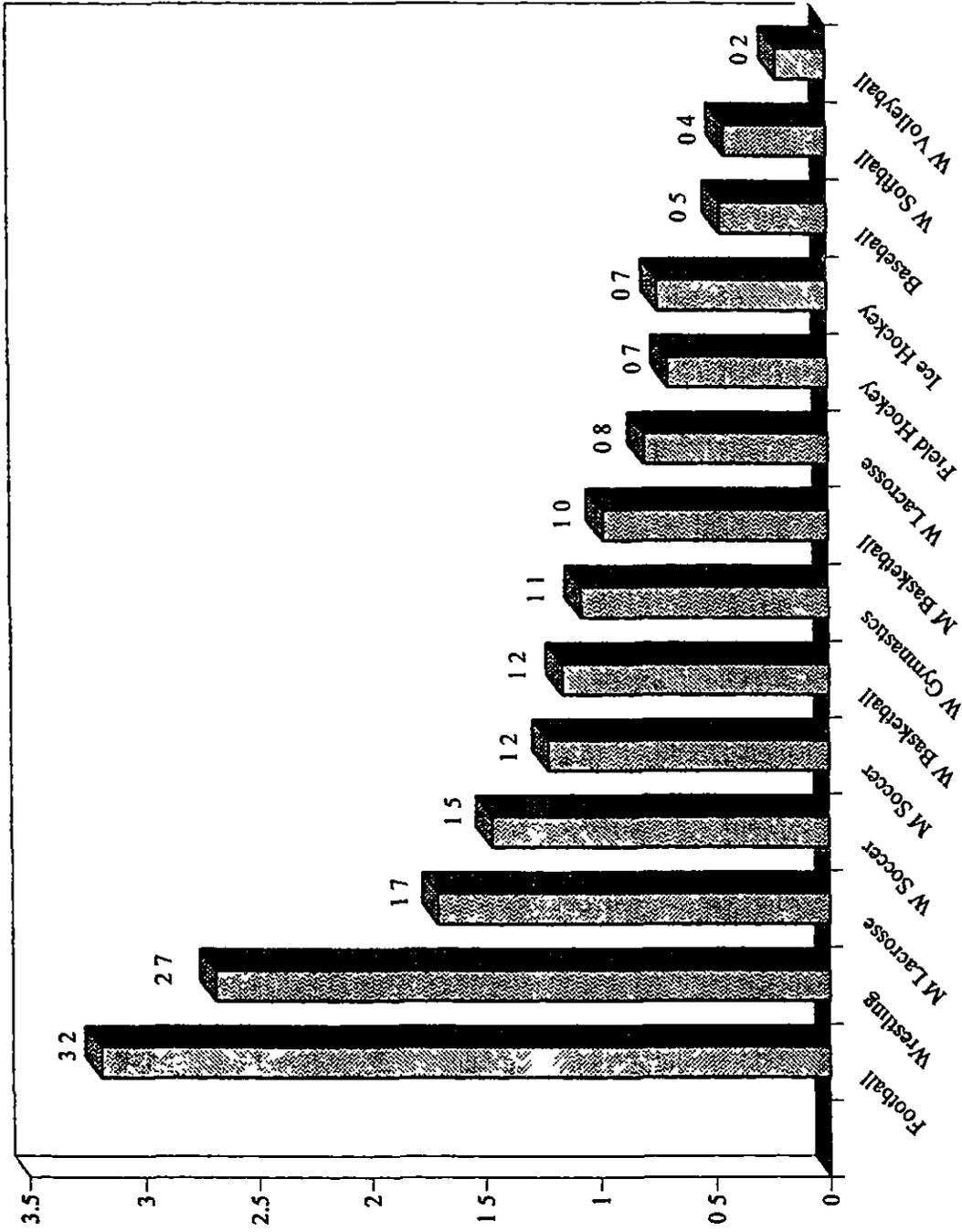


Figure 7
Severity - Surgery Injury Rate in Games
1997-98 and 1998-99 Seasons



NCAA BASEBALL INJURY SURVEILLANCE SYSTEM
 FOR ACADEMIC YEAR 1997-1998
 TOTAL OF ALL SCHOOLS

Number of Participating Schools = 94

THE FOLLOWING EXPOSURE NUMBERS WERE USED TO CALCULATE THE RATES REPORTED FOR ALL SCHOOLS

ABSOLUTE # OF GAMES	3,731
ABSOLUTE # OF PRACTICES	4,727
GAME AWAY EXPOSURES	28,657
GAME HOME EXPOSURES	22,679
GAME SEASON-POST EXPOSURES	1,856
GAME SEASON-PRE EXPOSURES	1,196
GAME SEASON-REGULAR EXPOSURES	48,299
GAME SURFACE ARTIFICIAL EXPOSURES	2,432
GAME SURFACE NATURAL EXPOSURES	48,818
GAME SURFACE NON-GRASS EXPOSURES	59
GAME TOTAL EXPOSURES	51,351
PRACTICE SEASON-POST EXPOSURES	3,019
PRACTICE SEASON-PRE EXPOSURES	66,073
PRACTICE SEASON-REGULAR EXPOSURES	60,531
PRACTICE SURFACE ARTIFICIAL EXPOSURES	5,866
PRACTICE SURFACE NATURAL EXPOSURES	73,075
PRACTICE SURFACE NON-GRASS EXPOSURES	50,682
PRACTICE TOTAL EXPOSURES	129,623
TOTAL EXPOSURES	180,974
TOTAL SEASON-POST EXPOSURES	4,875
TOTAL SEASON-PRE EXPOSURES	67,269
TOTAL SEASON-REGULAR EXPOSURES	108,830
TOTAL SURFACE ARTIFICIAL EXPOSURES	8,298
TOTAL SURFACE NATURAL EXPOSURES	121,893
TOTAL SURFACE NON-GRASS EXPOSURES	50,741

NCAA BASEBALL INJURY SURVEILLANCE SYSTEM
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	# of INJ.	PRACTICE TOTALS # of EXP. INJ. RATE	# of INJ.	GAME TOTALS # of EXP. INJ. RATE
1. Year				
1. Freshman	64	0 .00	43	0 .00
2. Sophomore	79	0 .00	59	0 .00
3. Junior	84	0 .00	78	0 .00
4. Senior	66	0 .00	100	0 .00
5. Fifth Year	3	0 .00	9	0 .00
TOTALS:	316	0 .00	289	0 .00
6. Injury occurred during:				
1. Preseason (prior to first regular-season contest)	203	66,073 3.07	3	1,196 2.51
2. Regular season	112	60,531 1.85	274	48,299 5.67
3. Postseason (following final regular-season game)	1	3,019 .33	12	1,856 6.47
99. Other	0	0 .00	0	0 .00
TOTALS:	316	129,623 2.44	289	51,351 5.63
7. Injury occurred in:				
1. Competition-varsity	0	0 0.00	289	51,351 5.63
2. NOT APPLICABLE	0	0 .00	0	0 .00
3. Practice	316	129,623 2.44	0	0 .00
99. Other	0	0 .00	0	0 .00
TOTALS:	316	129,623 2.44	289	51,351 5.63
8. Where did this injury occur (Game only)?				
1. Home	1	0 .00	143	22,679 6.31
2. Away	3	0 .00	146	28,657 5.09
99. Other	0	0 .00	0	0 .00
TOTALS:	4	0 .00	289	51,336 5.63
9. Injury occurred during:				
1. Pregame warm-up	1	0 .00	28	51,351 .55
2. Practice	313	129,623 2.41	0	0 .00
3. Innings 1 thru 3	0	0 .00	66	51,351 1.29
4. Innings 4 thru 6	0	0 .00	111	51,351 2.16
5. Innings 7 thru 9	0	0 .00	77	51,351 1.50
6. Extra innings	0	0 .00	0	0 .00
99. Other	2	0 .00	7	0 .00
TOTALS:	316	129,623 2.44	289	51,351 5.63

NCAA BASEBALL INJURY SURVEILLANCE SYSTEM
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	PRACTICE TOTALS			GAME TOTALS		
	# of INV.	# of EXP.	INJ. RATE	# of INV.	# of EXP.	INJ. RATE
10. This injury is a:						
1 New injury	235	129,623	1.81	242	51,351	4.71
2. Recurrence of injury from this season	16	129,623	.12	19	51,351	.37
3. Recurrence injury from previous season	49	129,623	.38	19	51,351	.37
4. Complication of previous injury (this sport)	6	129,623	.05	3	51,351	.06
5. Recurrence of other sport injury	0	129,623	.00	4	51,351	.08
6. Recurrence of non-sport injury	3	129,623	.02	1	51,351	.02
7. Complication previous other sport injury	1	129,623	.01	1	51,351	.02
TOTALS:	310	129,623	2.39	289	51,351	5.63
11. Unrelate injury recorded this season?						
1 Yes	49	129,623	.38	67	51,351	1.30
2 No	266	129,623	2.05	221	51,351	4.30
TOTALS:	315	129,623	2.43	288	51,351	5.62
12. Weather/field condition						
1 No precipitation	196	0	.00	249	0	.00
2 Rain	1	0	.00	9	0	.00
3 Snow	2	0	.00	0	0	.00
4 Indoor	93	0	.00	0	0	.00
5 No precipitation/wet field	23	0	.00	31	0	.00
100. Other	0	0	.00	0	0	.00
TOTALS:	315	0	.00	289	0	.00
13. How long did injury keep from participating in spo						
1. 1-2 days	115	129,623	.89	113	51,351	2.20
2 3-6 days	90	129,623	.69	68	51,351	1.32
3 7-9 days	33	129,623	.25	31	51,351	.60
4 10 days or more	78	129,623	.60	77	51,351	1.50
5. Catastrophic nonfatal	0	129,623	.00	0	51,351	.00
6. Fatal	0	129,623	.00	0	51,351	.00
TOTALS:	316	129,623	2.44	289	51,351	5.63
14. This injury involved (circle one):						
1 Contact with another competitor	11	129,623	.08	28	51,351	.55
2 Contact with playing surface	28	129,623	.22	41	51,351	.80
3. Contact with apparatus/ball	52	129,623	.40	85	51,351	1.66
4. Contact with other in environment (wall, fence	4	129,623	.03	12	51,351	.23
5. No apparent contact (rotation about planted fo	39	129,623	.30	22	51,351	.43
6. No apparent contact (rotation about planted fo	174	129,623	1.34	89	51,351	1.73
99. Other	8	129,623	.06	12	51,351	.23
TOTALS:	316	129,623	2.44	289	51,351	5.63

NCAA BASEBALL INJURY SURVEILLANCE SYSTEM
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15. Principal body part injured	PRACTICE TOTALS		GAME TOTALS	
	# of INJ.	# of EXP. INJ. RATE	# of INJ.	# of EXP. INJ. RATE
1 Head	16	129,623 .12	19	51,351 .37
2 Eye(s)	1	129,623 .01	3	51,351 .06
3 Ear(s)	0	129,623 .00	0	51,351 .00
4 Nose	4	129,623 .03	3	51,351 .06
5 Face	1	129,623 .01	4	51,351 .08
6 Chin	0	129,623 .00	0	51,351 .00
7 Jaw (TMJ)	1	129,623 .01	1	51,351 .02
8 Mouth	0	129,623 .00	3	51,351 .06
9 Teeth	1	129,623 .01	2	51,351 .04
10 Tongue	0	129,623 .00	0	51,351 .00
11 Neck	2	129,623 .02	4	51,351 .08
12 Shoulder	74	129,623 .57	52	51,351 1.01
13 Clavicle	2	129,623 .02	1	51,351 .02
14 Scapula	1	129,623 .01	2	51,351 .04
15 Upper arm	4	129,623 .03	2	51,351 .04
16 Elbow	36	129,623 .28	19	51,351 .37
17 Forearm	4	129,623 .03	6	51,351 .12
18 Wrist	10	129,623 .08	20	51,351 .39
19 Hand	7	129,623 .05	6	51,351 .12
20 Thumb	4	129,623 .03	7	51,351 .14
21 Finger(s)	8	129,623 .06	12	51,351 .23
22 Upper Back	3	129,623 .02	2	51,351 .04
23 Spine	1	129,623 .01	0	51,351 .00
24 Lower Back	19	129,623 .15	8	51,351 .16
25 Ribs	2	129,623 .02	4	51,351 .08
26 Sternum	1	129,623 .01	0	51,351 .00
27 Stomach	3	129,623 .02	2	51,351 .04
28 Pelvis, Hips, Groin	10	129,623 .08	13	51,351 .25
29 Buttocks	1	129,623 .01	0	51,351 .00
30 Upper leg	24	129,623 .19	31	51,351 .60
31 Knee	21	129,623 .16	23	51,351 .45
32 Patella	2	129,623 .02	3	51,351 .06
33 Lower leg	9	129,623 .07	8	51,351 .16
34 Ankle	26	129,623 .20	20	51,351 .39
35 Heel/Achilles Tendon	1	129,623 .01	2	51,351 .04
36 Foot	5	129,623 .04	2	51,351 .04
37 Toe(s)	3	129,623 .02	1	51,351 .02
38 Spleen	0	129,623 .00	0	51,351 .00
39 Kidney	0	129,623 .00	0	51,351 .00
40 External genitalia	3	129,623 .02	0	51,351 .00
41 Coccyx	0	129,623 .00	0	51,351 .00
42 Breast	0	129,623 .00	0	51,351 .00
99 Other	6	129,623 .05	4	51,351 .08
TOTALS:	316	129,623 2.44	289	51,351 5.63

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	# of INJ.	PRACTICE TOTALS		GAME TOTALS	
		# of EXP.	INJ. RATE	# of INJ.	% of EXP. INJ. RATE
16. If head injury, athlete diagnosed as having:					
1.1 degree Cerebral concussion	10	129,623	.08	20	51,351 .39
2.2 degree Cerebral concussion	0	129,623	.00	2	51,351 .04
3.3 degree Cerebral concussion	0	129,623	.00	0	51,351 .00
5 Unknown	2	129,623	.02	0	51,351 .00
TOTALS:	12	129,623	.09	22	51,351 .43
17. If head injury, was a mouthpiece worn?					
1. MP worn; dentist-fitted	0	0	.00	0	0 .00
2. MP worn; self-fitted	0	0	.00	1	0 .00
3. MP not worn	24	0	.00	27	0 .00
TOTALS:	24	129,623	.19	28	51,351 .55
18. If eye injury, type of eye injury?					
1. Orbital fracture	1	129,623	.01	2	51,351 .04
2. Cornea	0	129,623	.00	0	51,351 .00
3. Ruptured globe	0	129,623	.00	1	51,351 .02
4. Soft tissue	3	129,623	.02	3	51,351 .06
99. Other	1	129,623	.01	1	51,351 .02
TOTALS:	5	129,623	.04	7	51,351 .14
19. Indicate ALL knee structures injured:					
1. Collateral	7	129,623	.05	10	51,351 .19
2. Anterior cruciate	5	129,623	.04	2	51,351 .04
3. Posterior cruciate	0	129,623	.00	2	51,351 .04
4. Torn cartilage (meniscus)	12	129,623	.09	7	51,351 .14
5. Patella and/or patella tendon	5	129,623	.04	4	51,351 .08
99. Other	4	129,623	.03	3	51,351 .06
TOTALS:	33	129,623	.25	28	51,351 .55

NCAA BASEBALL INJURY SURVEILLANCE SYSTEM
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20. Primary type of injury	PRACTICE TOTALS			GAME TOTALS		
	# of INJ.	% of EXP.	INJ. RATE	# of INJ.	% of EXP.	INJ. RATE
1. Abrasion	1	129,623	.01	1	51,351	.02
2 Contusion	27	129,623	.21	51	51,351	.99
3. Laceration	8	129,623	.06	9	51,351	.18
4. Puncture wound	0	129,623	.00	0	51,351	.00
5. Bursitis	5	129,623	.04	4	51,351	.08
6 Tendinitis	30	129,623	.23	10	51,351	.19
7. Ligament sprain (incomplete tear)	47	129,623	.36	46	51,351	.90
8. Ligament sprain (complete tear)	2	129,623	.02	6	51,351	.12
9. Muscle-tendon strain (incomplete tear)	106	129,623	.82	86	51,351	1.67
10 Muscle-tendon strain (complete tear)	2	129,623	.02	1	51,351	.02
11. Torn cartilage	8	129,623	.06	3	51,351	.06
12. Hyperextension	0	129,623	.00	1	51,351	.02
13. AC separation	2	129,623	.02	1	51,351	.02
14. Dislocation (partial)	5	129,623	.04	6	51,351	.12
15. Dislocation (complete)	2	129,623	.02	4	51,351	.08
16. Fracture	17	129,623	.13	20	51,351	.39
17. Stress fracture	0	129,623	.00	0	51,351	.00
18. Concussion	8	129,623	.06	17	51,351	.33
19. Heat exhaustion	1	129,623	.01	0	51,351	.00
20. Heat stroke	1	129,623	.01	0	51,351	.00
21. Burn	0	129,623	.00	0	51,351	.00
22 Inflammation	15	129,623	.12	7	51,351	.14
23. Infection	4	129,623	.03	0	51,351	.00
24. Hemorrhage	0	129,623	.00	0	51,351	.00
25. Internal injury (non-hemorrhage)	0	129,623	.00	0	51,351	.00
26. Nerve injury	7	129,623	.05	1	51,351	.02
27 Blisters	0	129,623	.00	0	51,351	.00
28. Boil(s)	1	129,623	.01	0	51,351	.00
29. Hernia	0	129,623	.00	0	51,351	.00
30 Foreign object in body orifice	0	129,623	.00	0	51,351	.00
31. Avulsion (tooth)	0	129,623	.00	1	51,351	.02
32. Overuse	0	129,623	.00	0	51,351	.00
99. Other	17	129,623	.13	13	51,351	.25
TOTALS:	316	129,623	2.44	289	51,351	5.63
21 Bleeding occurred as part of injury?	21	129,623	.16	21	51,351	.41
2. No	295	129,623	3.28	266	51,351	5.18
99. Other	0	129,623	.00	0	51,351	.00
TOTALS:	316	129,623	2.44	287	51,351	5.59
22. Did this injury require surgery?	25	129,623	.19	15	51,351	.29
2. Yes, post-season	6	129,623	.05	9	51,351	.18
3. No	284	129,623	3.19	263	51,351	5.12
TOTALS:	315	129,623	3.43	287	51,351	5.59

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	PRACTICE TOTALS			GAME TOTALS		
	# of INV.	# of EXP.	INJ. RATE	# of INV.	# of EXP.	INJ. RATE
23. Describe the joint surgery:						
1.Arthroscopy	6	129,623	.05	6	51,351	.12
2.Diagnostic arthroscopy	1	129,623	.01	0	51,351	.00
3.Operative arthroscopy	15	129,623	.12	9	51,351	.18
99.Other	8	129,623	.06	5	51,351	.10
TOTALS:	30	129,623	.23	20	51,351	.39
24. Injury diagnosis (best diagnostic procedure)						
1 Clinical exam by athletics trainer	176	129,623	1.36	159	51,351	3.10
2 Clinical exam by M.D. / D.D.S.	61	129,623	.62	57	51,351	1.11
3.X-ray	24	129,623	.19	38	51,351	.74
4.MRI	20	129,623	.15	26	51,351	.51
5.Other imagery techniques	3	129,623	.02	3	51,351	.06
6.Surgery	6	129,623	.05	2	51,351	.04
7.Blood work/lab test	0	129,623	.00	1	51,351	.02
99.Other	5	129,623	.04	1	51,351	.02
TOTALS:	315	129,623	2.43	287	51,351	5.39
25. Field surface						
1.Natural grass	146	73,075	2.00	173	48,818	3.54
2.Artificial grass	16	5,866	2.73	8	2,432	3.29
3 Infield or basepath dirt	41	0	.00	102	0	.00
4 Non-grass surfaces (i.e. gym floors, etc)	104	50,682	2.05	1	0	.00
99.Other	7	0	.00	3	0	.00
TOTALS:	314	129,623	2.42	287	51,250	5.60
26. Position played at time of injury.						
1.Batter	34	0	.00	50	0	.00
2.Base runner	23	0	.00	64	0	.00
3.Pitcher	100	0	.00	56	0	.00
4.Catcher	22	0	.00	26	0	.00
5.First base	14	0	.00	10	0	.00
6.Second base	12	0	.00	7	0	.00
7.Shortstop	9	0	.00	17	0	.00
8.Third base	13	0	.00	14	0	.00
9.Left field	14	0	.00	11	0	.00
10.Center field	15	0	.00	8	0	.00
11.Right field	10	0	.00	16	0	.00
12.Non-positional/conditioning drill	42	0	.00	6	0	.00
13.Coach	0	0	.00	0	0	.00
99.Other	4	0	.00	2	0	.00
TOTALS:	312	129,623	2.41	287	51,351	5.59

Number of Participating Schools = 92

THE FOLLOWING EXPOSURE NUMBERS WERE USED TO CALCULATE THE RATES REPORTED FOR ALL SCHOOLS

ABSOLUTE # OF GAMES	3,708
ABSOLUTE # OF PRACTICES	4,743
GAME AWAY EXPOSURES	26,622
GAME HOME EXPOSURES	22,585
GAME SEASON-POST EXPOSURES	2,014
GAME SEASON-PRE EXPOSURES	1,104
GAME SEASON-REGULAR EXPOSURES	46,089
GAME SURFACE ARTIFICIAL EXPOSURES	1,427
GAME SURFACE NATURAL EXPOSURES	47,780
GAME TOTAL EXPOSURES	49,207
PRACTICE SEASON-POST EXPOSURES	3,033
PRACTICE SEASON-PRE EXPOSURES	65,959
PRACTICE SEASON-REGULAR EXPOSURES	61,996
PRACTICE SURFACE ARTIFICIAL EXPOSURES	7,108
PRACTICE SURFACE NATURAL EXPOSURES	76,706
PRACTICE SURFACE NON-GRASS EXPOSURES	47,174
PRACTICE TOTAL EXPOSURES	130,988
TOTAL EXPOSURES	180,195
TOTAL SEASON-POST EXPOSURES	5,047
TOTAL SEASON-PRE EXPOSURES	67,063
TOTAL SEASON-REGULAR EXPOSURES	108,085
TOTAL SURFACE ARTIFICIAL EXPOSURES	8,535
TOTAL SURFACE NATURAL EXPOSURES	124,486
TOTAL SURFACE NON-GRASS EXPOSURES	47,174

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	PRACTICE TOTALS			GAME TOTALS		
	# of INJ.	# of EXP.	INJ. RATE	# of INJ.	# of EXP.	INJ. RATE
1. Year						
1. Freshman	94	0	.00	46	0	.00
2. Sophomore	54	0	.00	61	0	.00
3. Junior	68	0	.00	99	0	.00
4. Senior	63	0	.00	81	0	.00
5. Fifth Year	5	0	.00	6	0	.00
TOTALS:	284	0	.00	293	0	.00
6 Injury occurred during						
1 Preseason (prior to first regular-season conte)	198	65,959	3 00	2	1,104	1 81
2 Regular season	78	61,996	1 26	283	46,089	6 14
3 Postseason (following final regular-season gam	8	3,033	2 64	8	2,014	3 97
99. Other	0	0	.00	0	0	.00
TOTALS	284	130,988	2 17	293	49,207	5 95
7. Injury occurred in.						
1 Competition-varsity	0	0	.00	293	49,207	5 95
2 NOT APPLICABLE	0	0	.00	0	0	.00
3 Practice	284	130,988	2 17	0	0	.00
99. Other	0	0	.00	0	0	.00
TOTALS:	284	130,988	2 17	293	49,207	5 95
8 Where did this injury occur (Game only)?						
1 Home	0	0	.00	148	22,585	6 55
2 Away	0	0	.00	122	26,622	4 58
3 Neutral site	0	0	.00	23	0	.00
99 Other	0	0	.00	0	0	.00
TOTALS	0	0	.00	293	49,207	5 95
9 Injury occurred during						
1 Pregame warm-up	0	0	.00	24	49,207	4 9
2 Innings 1 thru 3	0	130,988	.00	72	0	.00
3 Innings 4 thru 6	0	0	.00	121	49,207	2 46
4 Innings 7 thru 9	0	0	.00	74	49,207	1 50
5 Extra innings	0	0	.00	2	49,207	0 4
6 Practice	270	0	.00	0	49,207	.00
99 Other	14	0	.00	0	0	.00
TOTALS	284	130,988	2 17	293	49,207	5 95

NCAA BASEBALL INJURY SURVEILLANCE SYSTEM
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	PRACTICE TOTALS			GAME TOTALS		
	# of INJ.	\$ of EXP.	INJ RATE	# of INJ.	\$ of EXP.	INJ RATE
10 This injury is a:						
1. New injury	216	130,988	1.65	252	49,207	5.12
2. Recurrence of injury from this season	11	130,988	.08	19	49,207	.39
3. Recurrence of injury from previous season	39	130,988	.30	19	49,207	.39
4. Complication of previous injury (this sport)	9	130,988	.07	1	49,207	.02
5. Recurrence of other sport injury	3	130,988	.02	2	49,207	.04
6. Recurrence of nonsport injury	5	130,988	.04	0	49,207	.00
7. Complication previous other sport injury	1	130,988	.01	0	49,207	.00
TOTALS	284	130,988	2.17	293	49,207	5.95
11 Unrelated injury recorded this season?						
1 Yes	34	130,988	.26	72	49,207	1.46
2 No	250	130,988	1.91	221	49,207	4.49
TOTALS	284	130,988	2.17	293	49,207	5.95
12 Weather/field condition						
1 No precipitation	164	0	.00	269	0	.00
2 Rain	1	0	.00	6	0	.00
3 Snow	1	0	.00	0	0	.00
4 Indoor	98	0	.00	0	0	.00
5 No precipitation/wet field	20	0	.00	18	0	.00
100 Other	0	0	.00	0	0	.00
TOTALS	284	0	.00	293	0	.00
13 How long did injury keep from participating in sport?						
1 1-2 days	88	130,988	.67	123	49,207	2.50
2 3-6 days	98	130,988	.75	81	49,207	1.65
3 7-9 days	25	130,988	.19	21	49,207	.43
4 10 days or more	73	130,988	.56	68	49,207	1.38
5 Catastrophic nonfatal	0	130,988	.00	0	49,207	.00
6 Fatal	0	130,988	.00	0	49,207	.00
TOTALS	284	130,988	2.17	293	49,207	5.95
14 This injury involved (circle one)						
1 Contact with another competitor	6	130,988	.05	26	49,207	.53
2 Contact with playing surface	25	130,988	.19	53	49,207	1.08
3 Contact with apparatus/ball	48	130,988	.37	90	49,207	1.83
4 Contact with other in environment (wall, fence)	7	130,988	.05	9	49,207	.18
5 No apparent contact (rotation about planted foot)	16	130,988	.12	19	49,207	.39
6 No apparent contact (other)	163	130,988	1.24	80	49,207	1.63
99 Other	19	130,988	.15	16	49,207	.33
TOTALS	284	130,988	2.17	293	49,207	5.95

NCAA BASEBALL INJURY SURVEILLANCE SYSTEM
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Principal body part injured	PRACTICE TOTALS			GAME TOTALS		
	# of INJ.	# of EXP.	INJ. RATE	# of INJ.	# of EXP.	INJ. RATE
1 Head	8	130,988	.06	10	49,207	.20
2 Eye(s)	2	130,988	.02	0	49,207	.00
3 Ear(s)	1	130,988	.01	0	49,207	.00
4 Nose	2	130,988	.02	5	49,207	.10
5 Face	2	130,988	.02	1	49,207	.02
6 Chin	0	130,988	.00	3	49,207	.06
7 Jaw (TMJ)	0	130,988	.00	1	49,207	.02
8 Mouth	2	130,988	.02	0	49,207	.00
9 Teeth	2	130,988	.02	3	49,207	.06
10 Tongue	0	130,988	.00	0	49,207	.00
11 Neck	0	130,988	.00	3	49,207	.06
12 Shoulder	57	130,988	.44	42	49,207	.85
13 Clavicle	2	130,988	.02	1	49,207	.02
14 Scapula	0	130,988	.00	2	49,207	.04
15 Upper arm	10	130,988	.08	3	49,207	.06
16 Elbow	36	130,988	.27	22	49,207	.45
17 Forearm	3	130,988	.02	9	49,207	.18
18 Wrist	2	130,988	.02	13	49,207	.26
19 Hand	3	130,988	.02	8	49,207	.16
20 Thumb	6	130,988	.05	7	49,207	.14
21 Finger(s)	9	130,988	.07	13	49,207	.26
22 Upper Back	5	130,988	.04	2	49,207	.04
23 Spine	2	130,988	.02	0	49,207	.00
24 Lower Back	14	130,988	.11	6	49,207	.12
25 Ribs	1	130,988	.01	7	49,207	.14
26 Sternum	0	130,988	.00	0	49,207	.00
27 Stomach	3	130,988	.02	3	49,207	.06
28 Pelvis, Hips, Groin	7	130,988	.05	11	49,207	.22
29 Buttocks	0	130,988	.00	1	49,207	.02
30 Upper leg	36	130,988	.27	31	49,207	.63
31 Knee	15	130,988	.11	20	49,207	.41
32 Patella	1	130,988	.01	0	49,207	.00
33 Lower leg	16	130,988	.12	15	49,207	.30
34 Ankle	25	130,988	.19	39	49,207	.79
35 Heel/Achilles Tendon	0	130,988	.00	6	49,207	.12
36 Foot	7	130,988	.05	4	49,207	.08
37 Toe(s)	1	130,988	.01	1	49,207	.02
38 Spleen	0	130,988	.00	0	49,207	.00
39 Kidney	0	130,988	.00	0	49,207	.00
40 External genitalia	2	130,988	.02	0	49,207	.00
41 Coccyx	0	130,988	.00	0	49,207	.00
42 Breast	0	130,988	.00	0	49,207	.00
99 Other	2	130,988	.02	1	49,207	.02
TOTALS	284	130,988	2.17	293	49,207	5.95

NCAA BASEBALL INJURY SURVEILLANCE SYSTEM
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	PRACTICE TOTALS			GAME TOTALS		
	# of INJ.	# of EXP.	INJ. RATE	# of INJ.	# of EXP.	INJ. RATE
16. If head injury, athlete diagnosed as having:						
1.1 degree Cerebral concussion	9	130,988	.07	6	49,207	.12
2 2 degree Cerebral concussion	0	130,988	.00	0	49,207	.00
3 3 degree Cerebral concussion	0	130,988	.00	0	49,207	.00
4 No cerebral concussion	10	130,988	.08	17	49,207	.35
5 Unknown	0	130,988	.00	0	49,207	.00
TOTALS	19	130,988	.15	23	49,207	.47
17 If head injury, was a mouthpiece worn?						
1 MP worn, dentist-fitted	0	0	.00	0	0	.00
2 MP worn, self-fitted	5	0	.00	0	0	.00
3 MP not worn	14	0	.00	23	0	.00
TOTALS	19	0	.00	23	0	.00
18 If eye injury, type of eye injury?						
1 Orbital fracture	0	130,988	.00	0	49,207	.00
2 Cornea	0	130,988	.00	0	49,207	.00
3 Ruptured globe	0	130,988	.00	0	49,207	.00
4 Soft tissue	2	130,988	.02	2	49,207	.04
99 Other	0	130,988	.00	0	49,207	.00
TOTALS	2	130,988	.02	2	49,207	.04
19 Indicate ALL knee structures injured						
1 Collateral	1	130,988	.01	7	49,207	.14
2 Anterior cruciate	1	130,988	.01	3	49,207	.06
3 Posterior cruciate	0	130,988	.00	1	49,207	.02
4 Torn cartilage (meniscus)	8	130,988	.06	4	49,207	.08
5 Patella and/or patella tendon	3	130,988	.02	2	49,207	.04
6 None	2	130,988	.02	2	49,207	.04
99 Other	3	130,988	.02	5	49,207	.10
TOTALS	18	130,988	.14	24	49,207	.49

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20. Primary type of injury	PRACTICE TOTALS			GAME TOTALS		
	# of INJ.	# of EXP.	INJ. RATE	# of INJ.	# of EXP.	INJ. RATE
1 Abrasion	0	130,988	.00	0	49,207	.00
2 Contusion	33	130,988	.25	62	49,207	1.26
3 Laceration	4	130,988	.03	9	49,207	.18
4 Puncture wound	0	130,988	.00	1	49,207	.02
5 Bursitis	5	130,988	.04	3	49,207	.06
6 Tendinitis	30	130,988	.23	6	49,207	.12
7 Ligament sprain (incomplete tear)	48	130,988	.37	66	49,207	1.34
8 Ligament sprain (complete tear)	2	130,988	.02	4	49,207	.08
9 Muscle-tendon strain (incomplete tear)	104	130,988	.79	78	49,207	1.59
10 Muscle-tendon strain (complete tear)	1	130,988	.01	1	49,207	.02
11 Torn cartilage	9	130,988	.07	3	49,207	.06
12 Hyperextension	1	130,988	.01	2	49,207	.04
13 AC separation	1	130,988	.01	0	49,207	.00
14 Dislocation (partial)	1	130,988	.01	3	49,207	.06
15 Dislocation (complete)	1	130,988	.01	6	49,207	.12
16 Fracture	10	130,988	.08	27	49,207	.55
17 Stress fracture	0	130,988	.00	3	49,207	.06
18 Concussion	7	130,988	.05	4	49,207	.08
19 Heat exhaustion	1	130,988	.01	0	49,207	.00
20 Heat stroke	0	130,988	.00	0	49,207	.00
21 Burn	0	130,988	.00	0	49,207	.00
22 Inflammation	8	130,988	.06	4	49,207	.08
23 Infection	0	130,988	.00	0	49,207	.00
24 Hemorrhage	0	130,988	.00	0	49,207	.00
25 Internal injury (non-hemorrhage)	0	130,988	.00	0	49,207	.00
26 Nerve injury	3	130,988	.02	1	49,207	.02
27 Blisters	0	130,988	.00	2	49,207	.04
28 Boil(s)	0	130,988	.00	0	49,207	.00
29 Hernia	1	130,988	.01	0	49,207	.00
30 Foreign object in body orifice	1	130,988	.01	0	49,207	.00
31 Avulsion (tooth)	0	130,988	.00	0	49,207	.00
32 Overuse	0	130,988	.00	0	49,207	.00
99 Other	13	130,988	.10	8	49,207	.16
TOTALS	284	130,988	2.17	293	49,207	5.95
21 Bleeding occurred as part of injury?						
1 Yes	15	130,988	.11	22	49,207	.45
2 No	269	130,988	2.05	271	49,207	5.51
99 Other	0	130,988	.00	0	49,207	.00
TOTALS	284	130,988	2.17	293	49,207	5.95
22 Did this injury require surgery?						
1 Yes, in-season	8	130,988	.06	13	49,207	.26
2 Yes, post-season	3	130,988	.02	5	49,207	.10
3 No	273	130,988	2.08	275	49,207	5.59
TOTALS	284	130,988	2.17	293	49,207	5.95

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	PRACTICE TOTALS			GAME TOTALS		
	# of INJ.	# of EXP.	INJ. RATE	# of INJ.	# of EXP.	INJ. RATE
23. Describe the joint surgery:						
1. Arthroscopy	2	130,988	.02	3	49,207	.06
2. Diagnostic arthroscopy	2	130,988	.02	0	49,207	.00
3. Operative arthroscopy	6	130,988	.05	6	49,207	.12
4. No joint surgery	272	130,988	2.08	278	49,207	5.65
99. Other	1	130,988	.01	6	49,207	.12
TOTALS.	283	130,988	2.16	293	49,207	5.95
24. Injury diagnosis (best diagnostic procedure)						
1. Clinical exam by athletics trainer	162	130,988	1.24	177	49,207	3.60
2. Clinical exam by M D / D D S	82	130,988	.63	50	49,207	1.02
3. X-ray	24	130,988	.18	46	49,207	.93
4. MRI	9	130,988	.07	13	49,207	.26
5. Other imagery techniques	4	130,988	.03	3	49,207	.06
6. Surgery	2	130,988	.02	4	49,207	.08
7. Blood work/lab test	1	130,988	.01	0	49,207	.00
99. Other	0	130,988	.00	0	49,207	.00
TOTALS	284	130,988	2.17	293	49,207	5.95
25. Field surface						
1. Natural grass	107	76,706	1.39	132	47,780	2.76
2. Artificial grass	8	7,108	1.13	7	1,427	.49
3. Infield or basepath dirt	68	0	.00	144	0	.00
4. Non-grass surfaces (i.e. gym floors, etc)	92	47,174	1.95	1	0	.00
99. Other	9	0	.00	9	0	.00
TOTALS	284	130,988	2.17	293	49,207	5.95
26. Position played at time of injury						
1. Batter	27	0	.00	51	0	.00
2. Base runner	28	0	.00	76	0	.00
3. Pitcher	78	0	.00	59	0	.00
4. Catcher	25	0	.00	26	0	.00
5. First base	9	0	.00	9	0	.00
6. Second base	10	0	.00	13	0	.00
7. Shortstop	18	0	.00	13	0	.00
8. Third base	9	0	.00	12	0	.00
9. Left field	9	0	.00	12	0	.00
10. Center field	7	0	.00	9	0	.00
11. Right field	4	0	.00	9	0	.00
12. Non-positional/conditioning drill	55	0	.00	2	0	.00
13. Coach	0	0	.00	0	0	.00
99. Other	5	0	.00	2	0	.00
TOTALS	284	130,988	2.17	293	49,207	5.95

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 TOTAL OF ALL SCHOOLS

	PRACTICE TOTALS			GAME TOTALS		
	# of INJ.	\$ of EXP.	INJ. RATE	# of INJ.	\$ of EXP.	INJ. RATE
27. Did injury involve the player sliding into a base	3	0	.00	22	0	.00
	6	0	.00	17	0	.00
	275	0	.00	254	0	.00
TOTALS:	284	130,988	2 17	293	49,207	5 95
28 Injury was caused by	14	130,988	.11	29	49,207	59
1 Being hit by a pitch	15	0	00	6	0	00
2 Contact with thrown ball (nonpitch)	6	130,988	05	5	49,207	10
3 Contact with boundary walls, railing, dugout	1	130,988	01	21	49,207	43
4 Contact with opposing player	5	130,988	04	4	49,207	08
5 Contact with teammate	19	130,988	15	43	49,207	87
6 Contact with ground	6	130,988	.05	33	49,207	67
7 Contact with fixed base	1	130,988	01	2	49,207	04
8 Contact with breakaway base	59	130,988	45	42	49,207	85
9 Throwing (pitching)	43	130,988	33	13	49,207	26
10 Throwing (non-pitching)	75	130,988	57	34	49,207	69
11 No apparent contact (non-throwing)	17	130,988	.13	32	49,207	.65
12 Hit by batted ball	23	130,988	18	29	49,207	59
99 Other						
TOTALS	284	130,988	2 17	293	49,207	5 95

	<i>ISS_YEAR</i>	<i>SPORTCODE</i>	<i>GAME PRAC TEXT</i>	<i>sum participants</i>
1	1997	MBA	Game	58077
2			Practice	153773
3	Total			211850
4	1998	MBA	Game	52792
5			Practice	131741
6	Total			184533
7	1999	MBA	Game	50929
8			Practice	136121
9	Total			187050
10	2000	MBA	Game	80327
11			Practice	215168
12	Total			295495
13	Total			878928

	ISS_YEAR	SPORTCODE	ACTICE_GAM	MASTER TEXT	STER_TEX	MASTER TEXT	sult Cou
1	1997	MBA	1	Hit by batted ball	Pitcher	1-2 days	3
2		MBA	1	Hit by batted ball	Pitcher	10 days or more	1
3		MBA	1	Hit by batted ball	Pitcher	3-6 days	2
4	Total						6
5	1998	MBA	1	Hit by batted ball	Pitcher	1-2 days	5
6		MBA	1	Hit by batted ball	Pitcher	10 days or more	1
7		MBA	1	Hit by batted ball	Pitcher	3-6 days	2
8		MBA	1	Hit by batted ball	Pitcher	7-9 days	2
9	Total						10
10	1999	MBA	1	Hit by batted ball	Pitcher	1-2 days	9
11		MBA	1	Hit by batted ball	Pitcher	10 days or more	3
12		MBA	1	Hit by batted ball	Pitcher	3-6 days	2
13	Total						14
14	2000	MBA	1	Hit by batted ball	Pitcher	1-2 days	8
15		MBA	1	Hit by batted ball	Pitcher	10 days or more	1
16		MBA	1	Hit by batted ball	Pitcher	3-6 days	2
17		MBA	1	Hit by batted ball	Pitcher	7-9 days	4
18	Total						15
19	Total						45

Number of Participating Schools = 151

THE FOLLOWING EXPOSURE NUMBERS WERE USED TO CALCULATE THE RATES REPORTED FOR ALL SCHOOLS

ABSOLUTE # OF GAMES	5,810
ABSOLUTE # OF PRACTICES	7,629
GAME AWAY EXPOSURES	45,038
GAME HOME EXPOSURES	34,640
GAME SEASON-POST EXPOSURES	2,620
GAME SEASON-PRE EXPOSURES	2,492
GAME SEASON-REGULAR EXPOSURES	72,549
GAME SURFACE ARTIFICIAL EXPOSURES	3,847
GAME SURFACE NATURAL EXPOSURES	76,172
GAME SURFACE NON-GRASS EXPOSURES	25
GAME TOTAL EXPOSURES	80,215
PRACTICE SEASON-POST EXPOSURES	4,297
PRACTICE SEASON-PRE EXPOSURES	103,701
PRACTICE SEASON-REGULAR EXPOSURES	105,676
PRACTICE SURFACE ARTIFICIAL EXPOSURES	14,444
PRACTICE SURFACE NATURAL EXPOSURES	124,957
PRACTICE SURFACE NON-GRASS EXPOSURES	74,273
PRACTICE TOTAL EXPOSURES	213,674
TOTAL EXPOSURES	293,889
TOTAL SEASON-POST EXPOSURES	6,917
TOTAL SEASON-PRE EXPOSURES	106,193
TOTAL SEASON-REGULAR EXPOSURES	178,225
TOTAL SURFACE ARTIFICIAL EXPOSURES	18,291
TOTAL SURFACE NATURAL EXPOSURES	201,129
TOTAL SURFACE NON-GRASS EXPOSURES	74,298

FOR ACADEMIC YEAR 1999-2000
TOTAL OF ALL SCHOOLS

	# of INJ	PRACTICE TOTALS			# of INJ	GAME TOTALS		
		# of EXP	INJ	RATE		# of EXP	INJ	RATE
1 Year								
1 Freshman	105	0		.00	69	0	0.00	
2 Sophomore	105	0		.00	100	0	0.00	
3 Junior	110	0		.00	176	0	0.00	
4 Senior	87	0		.00	134	0	0.00	
5 Fifth Year	6	0		.00	3	0	0.00	
TOTALS	413	0		.00	482	0	0.00	
6 Injury occurred during								
1 Preseason (prior to first regular-season conte	278	103,701		2.68	14	2,492	5.62	
2 Regular season	135	105,676		1.28	455	72,549	6.27	
3 Postseason (following final regular-season gam	1	4,297		.23	14	2,620	5.34	
99 Other	0	0		.00	0	0	0.00	
TOTALS	414	213,674		1.94	483	77,661	6.22	
7 Injury occurred in								
1.Competition-varsity	0	0		.00	483	80,215	6.02	
2 NOT APPLICABLE	0	0		.00	0	0	0.00	
3 Practice	414	213,674		1.94	0	0	0.00	
99 Other	0	0		.00	0	0	0.00	
TOTALS	414	213,674		1.94	483	80,215	6.02	
8 Where did this injury occur (Game only)?								
1 Home	0	0		.00	162	34,640	4.68	
2 Away	0	0		.00	236	45,038	5.24	
3 Neutral site	0	0		.00	40	0	0.00	
99 Other	0	0		.00	1	0	0.00	
TOTALS	0	0		.00	439	79,678	5.51	
9 Injury occurred during								
1 Pregame warm-up	1	0		.00	38	80,215	4.7	
2.Innings 1 thru 3	0	213,674		.00	116	0	0.00	
3 Innings 4 thru 6	0	0		.00	183	80,215	2.28	
4 Innings 7 thru 9	0	0		.00	107	80,215	1.33	
5 Extra innings	0	0		.00	5	80,215	0.6	
6 Practice	405	0		.00	0	80,215	0.00	
99.Other	8	0		.00	10	0	0.00	
TOTALS:	414	213,674		1.94	459	80,215	5.72	

NCAA BASEBALL INJURY SURVEILLANCE SYSTEM
FOR ACADEMIC YEAR 1999-2000
TOTAL OF ALL SCHOOLS

	# of INJ	PRACTICE TOTALS			GAME TOTALS		
		# of EXP	INJ. RATE	# of INJ	# of EXP	INJ RATE	
10 This injury is a:							
1 New injury	334	213,674	1 56	415	80,215	5 17	
2. Recurrence of injury from this season	16	213,674	07	23	80,215	29	
3 Recurrence injury from previous season	40	213,674	19	27	80,215	34	
4 Complication of previous injury (this sport)	11	213,674	05	12	80,215	15	
5 Recurrence of other sport injury	10	213,674	05	2	80,215	02	
6 Recurrence of nonsport injury	3	213,674	01	3	80,215	04	
7 Complication previous other sport injury	0	213,674	00	0	80,215	00	
TOTALS	414	213,674	1 94	482	80,215	6 01	
11 Unrelate injury recorded this season?							
1 Yes	50	213,674	23	105	80,215	1 31	
2 No	364	213,674	1 70	377	80,215	4 70	
TOTALS	414	213,674	1 94	482	80,215	6 01	
12 Weather/field condition							
1 No precipitation	209	0	00	424	0	00	
2 Rain	4	0	00	10	0	00	
3 Snow	2	0	00	1	0	00	
4 Indoor	169	0	00	4	0	00	
5 No precipitation/wet field	26	0	00	42	0	00	
100 Other	0	0	00	0	0	00	
TOTALS	410	0	.00	481	0	00	
13 How long did injury keep from participating in spo							
1 1-2 days	139	213,674	65	147	80,215	1 83	
2 3-6 days	111	213,674	52	110	80,215	1 37	
3 7-9 days	47	213,674	22	70	80,215	87	
4 10 days or more	110	213,674	51	148	80,215	1 85	
5 Catastrophic nonfatal	0	213,674	00	0	80,215	00	
6 Fatal	0	213,674	00	0	80,215	00	
TOTALS	407	213,674	1 90	475	80,215	5 92	
14 This injury involved (circle one)							
1 Contact with another competitor	18	213,674	08	64	80,215	80	
2 Contact with playing surface	44	213,674	21	64	80,215	80	
3 Contact with apparatus/ball	67	213,674	31	140	80,215	1 75	
4 Contact with other in environment (wall, fence	6	213,674	03	14	80,215	17	
5 No apparent contact (rotation about planted fo	39	213,674	.18	37	80,215	46	
6. No apparent contact (other)	207	213,674	.97	144	80,215	1.80	
99. Other	33	213,674	.15	20	80,215	.25	
TOTALS:	414	213,674	1.94	483	80,215	6 02	

Principal body part injured	# of INJ.	PRACTICE TOTALS		# of INJ.	GAME TOTALS	
		# of EXP	INJ RATE		# of EXP	INJ RATE
1 Head	9	213,674	04	24	80,215	30
2 Eye(s)	1	213,674	00	3	80,215	04
3 Ear(s)	0	213,674	00	0	80,215	00
4 Nose	6	213,674	03	4	80,215	05
5 Face	2	213,674	01	11	80,215	14
6 Chin	2	213,674	.01	0	80,215	00
7 Jaw (TMJ)	0	213,674	00	1	80,215	01
8 Mouth	1	213,674	00	5	80,215	06
9 Teeth	3	213,674	01	1	80,215	01
10 Tongue	0	213,674	00	0	80,215	00
11 Neck	1	213,674	00	2	80,215	02
12 Shoulder	84	213,674	39	65	80,215	81
13 Clavicle	1	213,674	00	2	80,215	02
14 Scapula	1	213,674	00	1	80,215	01
15 Upper arm	9	213,674	04	11	80,215	14
16 Elbow	57	213,674	27	56	80,215	70
17 Forearm	8	213,674	.04	11	80,215	14
18 Wrist	6	213,674	03	16	80,215	20
19 Hand	13	213,674	06	28	80,215	35
20 Thumb	8	213,674	04	14	80,215	17
21 Finger(s)	6	213,674	03	23	80,215	29
22 Upper Back	7	213,674	03	1	80,215	01
23 Spine	1	213,674	00	0	80,215	00
24 Lower Back	22	213,674	.10	11	80,215	14
25 Ribs	3	213,674	.01	5	80,215	06
26 Sternum	0	213,674	00	1	80,215	01
27 Stomach	3	213,674	01	2	80,215	02
28 Pelvis, Hips, Groin	13	213,674	06	12	80,215	15
29 Buttocks	1	213,674	.00	0	80,215	00
30 Upper Leg	30	213,674	14	55	80,215	69
31 Knee	23	213,674	11	38	80,215	47
32 Patella	6	213,674	03	6	80,215	07
33 Lower Leg	13	213,674	06	17	80,215	21
34 Ankle	53	213,674	25	38	80,215	47
35 Heel/Achilles Tendon	2	213,674	01	2	80,215	02
36 Foot	13	213,674	06	13	80,215	16
37 Toe(s)	3	213,674	.01	1	80,215	01
38 Spleen	0	213,674	00	0	80,215	00
39 Kidney	0	213,674	00	0	80,215	00
40 External genitalia	0	213,674	.00	1	80,215	01
41 Coccyx	0	213,674	00	0	80,215	00
42 Breast	1	213,674	.00	1	80,215	01
99 Other	2	213,674	.01	1	80,215	.01
TOTALS	414	213,674	1 94	483	80,215	6.02

	# of INJ	PRACTICE TOTALS			GAME TOTALS		
		# of EXP	INJ	RATE	# of INJ	# of EXP	INJ
16 If head injury, athlete diagnosed as having	9	213,674	04	17	80,215	21	
1 1 degree Cerebral concussion	0	213,674	00	8	80,215	10	
2 2 degree Cerebral concussion	0	213,674	00	0	80,215	00	
3 3 degree Cerebral concussion	2	213,674	01	8	80,215	10	
4 No cerebral concussion	0	213,674	00	0	80,215	00	
5 Unknown	0	213,674	00	0	80,215	00	
TOTALS	11	213,674	05	33	80,215	41	
17 If head injury, was a mouthpiece worn?	0	0	00	0	0	00	
1 MP worn, dentist-fitted	0	0	00	1	0	00	
2 MP worn self-fitted	19	0	00	44	0	00	
3 MP not worn	0	0	00	0	0	00	
TOTALS	19	0	00	45	0	00	
18 If eye injury, type of eye injury?	2	213,674	01	4	80,215	05	
1 Orbital fracture	0	213,674	00	0	80,215	00	
2 Cornea	0	213,674	00	1	80,215	01	
3 Ruptured globe	3	213,674	01	3	80,215	04	
4 Soft tissue	3	213,674	01	0	80,215	00	
99 Other	0	213,674	00	0	80,215	00	
TOTALS	8	213,674	04	8	80,215	10	
19 Indicate ALL knee structures injured.	8	213,674	04	5	80,215	07	
1 Collateral	5	213,674	02	8	80,215	10	
2 Anterior cruciate	1	213,674	00	3	80,215	04	
3 Posterior cruciate	6	213,674	03	11	80,215	14	
4 Torn cartilage (meniscus)	8	213,674	04	12	80,215	15	
5 Patella and/or patella tendon	2	213,674	01	4	80,215	05	
6 None	9	213,674	04	10	80,215	12	
99 Other	0	213,674	00	0	80,215	00	
TOTALS	39	213,674	18	54	80,215	67	

FOR ACADEMIC YEAR 1999-2000
TOTAL OF ALL SCHOOLS

20 Primary type of injury	# of INJ	PRACTICE TOTALS			GAME TOTALS		
		# of EXP	INJ	RATE	# of INJ.	# of EXP	INJ
1 Abrasion	0	213,674	00	00	1	80,215	01
2 Contusion	33	213,674	.15	.15	92	80,215	1 15
3 Laceration	5	213,674	.02	.02	14	80,215	17
4 Puncture wound	1	213,674	.00	.00	0	80,215	.00
5 Bursitis	4	213,674	.02	.02	8	80,215	10
6 Tendinitis	51	213,674	.24	.24	22	80,215	27
7 Ligament sprain (incomplete tear)	86	213,674	.40	.40	77	80,215	96
8 Ligament sprain (complete tear)	9	213,674	.04	.04	11	80,215	14
9 Muscle-tendon strain (incomplete tear)	6	213,674	.03	.03	4	80,215	.04
10 Muscle-tendon strain (complete tear)	121	213,674	.57	.57	107	80,215	1 33
11 Torn cartilage	2	213,674	.01	.01	3	80,215	.04
12 Hyperextension	7	213,674	.03	.03	8	80,215	10
13 AC separation	4	213,674	.02	.02	4	80,215	05
14 Dislocation (partial)	2	213,674	.01	.01	0	80,215	.00
15 Dislocation (complete)	7	213,674	.03	.03	10	80,215	12
16 Fracture	0	213,674	.00	.00	19	80,215	24
17 Stress fracture	23	213,674	.11	.11	49	80,215	.61
18 Concussion	5	213,674	.02	.02	2	80,215	.02
19 Heat exhaustion	7	213,674	.03	.03	23	80,215	29
20 Heat stroke	0	213,674	.00	.00	0	80,215	.00
21 Burn	0	213,674	.00	.00	0	80,215	.00
22 Inflammation	0	213,674	.00	.00	0	80,215	.00
23 Infection	13	213,674	.06	.06	9	80,215	11
24 Hemorrhage	0	213,674	.00	.00	1	80,215	.01
25 Internal injury (non-hemorrhage)	0	213,674	.00	.00	0	80,215	.00
26 Nerve injury	8	213,674	.04	.04	3	80,215	.04
27 Blisters	0	213,674	.00	.00	0	80,215	.00
28 Boli(s)	0	213,674	.00	.00	0	80,215	.00
29 Hernia	0	213,674	.00	.00	0	80,215	.00
30 Foreign object in body orifice	0	213,674	.00	.00	0	80,215	.00
31 Avulsion (tooth)	3	213,674	.01	.01	0	80,215	.00
32 Overuse	0	213,674	.00	.00	0	80,215	.00
99 Other	21	213,674	.10	.10	16	80,215	20
TOTALS	412	213,674	1 93	1 93	479	80,215	5 97
21. Bleeding occurred as part of injury?							
1 Yes	23	213,674	.11	.11	43	80,215	.54
2 No	390	213,674	1 83	1 83	438	80,215	5 46
99 Other	0	213,674	.00	.00	0	80,215	.00
TOTALS	413	213,674	1 93	1 93	481	80,215	6 00
22. Did this injury require surgery?							
1 Yes, in-season	25	213,674	.12	.12	26	80,215	.32
2 Yes, post-season	9	213,674	.04	.04	17	80,215	.21
3 No	368	213,674	1 72	1 72	426	80,215	5 31
TOTALS	402	213,674	1 88	1 88	469	80,215	5 85

23. Describe the joint surgery

	# of INJ.	PRACTICE TOTALS			# of INJ	GAME TOTALS		
		# of EXP	INJ	RATE		# of EXP	INJ	RATE
1 Arthroctomy	5	213,674	02	5	80,215	06		
2 Diagnostic arthroscopy	1	213,674	00	1	80,215	01		
3. Operative arthroscopy	14	213,674	07	21	80,215	26		
4 No joint surgery	305	213,674	1 43	300	80,215	3 74		
99 Other	10	213,674	05	9	80,215	11		
TOTALS	335	213,674	1 57	336	80,215	4 19		

24 Injury diagnosis (best diagnostic procedure)

1. Clinical exam by athletics trainer	239	213,674	1 12	237	80,215	2 95
2. Clinical exam by M D / D.D S	84	213,674	.39	98	80,215	1 22
3 X-ray	41	213,674	.19	88	80,215	1 10
4 MRI	27	213,674	.13	32	80,215	.40
5 Other imagery techniques	6	213,674	.03	9	80,215	.11
6 Surgery	4	213,674	.02	7	80,215	.09
7 Blood work/lab test	0	213,674	.00	1	80,215	.01
99 Other	2	213,674	.01	4	80,215	.05
TOTALS	403	213,674	1 89	476	80,215	5 93

25 Field surface

1 Natural grass	152	124,957	1 22	254	76,172	3 33
2 Artificial grass	23	14,444	1.59	14	3,847	3 64
3 Infield or basepath dirt	62	0	.00	200	0	.00
4 Non-grass surfaces (l e. gym floors, etc)	146	74,273	1 97	7	0	.00
99 Other	18	0	.00	6	0	.00
TOTALS	401	213,674	1 88	481	80,019	6 01

26 Position played at time of injury

1 Batter	40	0	.00	77	0	.00
2 Base runner	41	0	.00	109	0	.00
3 Pitcher	131	0	.00	101	0	.00
4 Catcher	33	0	.00	39	0	.00
5 First base	9	0	.00	22	0	.00
6. Second base	17	0	.00	22	0	.00
7 Shortstop	13	0	.00	29	0	.00
8 Third base	15	0	.00	21	0	.00
9. Left field	20	0	.00	13	0	.00
10 Center field	21	0	.00	17	0	.00
11 Right field	8	0	.00	21	0	.00
12. Non-positional/conditioning drill	54	0	.00	5	0	.00
13 Coach	0	0	.00	0	0	.00
99. Other	9	0	.00	6	0	.00
TOTALS:	411	213,674	1 92	482	80,215	6 01

FOR ACADEMIC YEAR 1999-2000
TOTAL OF ALL SCHOOLS

27 Did injury involve the player sliding into a base

1 Yes, head first
2 Yes, feet first
3 No

	# of INJ	PRACTICE TOTALS		RATE	# of INJ	GAME TOTALS	
		# of EXP.	INJ			# of EXP	INJ
TOTALS	412	213,674	1	.93	477	80,215	5
	6	0	0	.00	39	0	00
	8	0	0	.00	29	0	00
	398	0	0	.00	409	0	00

28 Injury was caused by

- 1 Being hit by a pitch
- 2 Contact with thrown ball (nonpitch)
- 3 Contact with boundary walls, railing, dugout
- 4 Contact with opposing player
- 5 Contact with teammate
- 6 Contact with ground
- 7 Contact with fixed base
- 8 Contact with breakaway base
- 9 Throwing (pitching)
- 10 Throwing (non-pitching)
- 11 No apparent contact (non-throwing)
- 12 Hit by batted ball
- 99 Other

	# of INJ	PRACTICE TOTALS		RATE	# of INJ	GAME TOTALS	
		# of EXP.	INJ			# of EXP	INJ
TOTALS	413	213,674	1	.93	482	80,215	6
	21	213,674	10	.00	47	80,215	59
	13	0	02	.00	17	0	00
	4	213,674	02	.02	10	80,215	12
	10	213,674	.05	.05	46	80,215	57
	9	213,674	.04	.04	16	80,215	20
	39	213,674	18	.08	53	80,215	66
	13	213,674	06	.06	41	80,215	51
	3	213,674	.01	.01	1	80,215	01
	98	213,674	.46	.46	71	80,215	.89
	50	213,674	23	.23	25	80,215	31
	93	213,674	44	.44	72	80,215	90
	19	213,674	09	.09	52	80,215	65
	41	213,674	19	.19	31	80,215	39

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FAX COVER SHEET

Date: 11-28-00

Time: 1 PM

To: MR Rahn

From: Bill Thurston
Former NCAA Olympic Rules Editor

Number of pages including cover page:

Message: JACK MCKAY told me that you needed the results of our February survey for 98, 99, and 2000. Enclosed are the results from 98 + 99, but the NCAA refused to give me the 2000 results, or the raw data as they did in previous years.

I've included some other information that I believe you'll find pertinent.

Bill Thurston

1998 - PITCHER HIT BY A BATTED BALL INJURY SURVEY

To: Baseball Rules Committee

98 Study

Bill Thurston
NCAA Baseball Rules Editor

6-15-98

This survey was sent to 273 Division I baseball trainers. As of May 22;

72 of 273 institutions reported - only 26%

*This was later updated by
Randy Dick (NCAA) with 30 to 40
more institutions*

There were 173 strikes reported by 72 institutions equaling 2.4 hits per reporting institution.

3 institutions reported 7 pitchers hit by batted balls

1	"	"	6	"	"	"	"
2	"	"	5	"	"	"	"
9	"	"	4	"	"	"	"
10	"	"	3	"	"	"	"
21	"	"	2	"	"	"	"
25	"	"	1	"	"	"	"
1	"	"	0	"	"	"	"

*Projected - Estimated that 375 pitchers
were hit in Div I alone.*

Of course we do not know, at this time, how many pitchers were hit by batted balls from those 201 institutions which did not report.

Most of the strikes did not cause serious injury, but there were a number of hits to the head, face, neck, arms and body, (even one broken knee esp) which were serious injuries. Also, all of us have seen close-calls hit right past the pitcher's head on which the pitchers did not have time enough to react and protect themselves. If more experienced major league pitchers are being hit by line drives off wood bats, (which are often hit 10-15% slower than off aluminum) then we have to recognize we have even a greater safety problem.

The question should not be, is baseball a safer sport than other team sports, but is baseball as safe when played with the present high performance aluminum bats as it would be played with bats that perform more like wood? I think all college coaches know the answer to that question.

I will also bring you copies of the survey which I did in New England with Division II and III institutions only.

1998 5 pitchers were hit in the head by direct line drives in 1998
2 in the ribs
2 in the arm (1 fractured)

I am enclosing a copy of the NCAA's injury report of the Division I institutions who did take part in the survey (26%). I am also enclosing a copy of a letter from the ASTM dated 10-30-95 stating "I am convinced that the "reaction time problem" associated with current bat and ball standards development has caught the attention of all of us, and it is clearly a safety issue we cannot ignore". This statement was written in 1995. Certainly, bat performance has increased every year since then. The SGMA had agreed to partially fund the publication of the report measuring human reaction time which had previously been completed, but not published by Brandt. I don't believe the results of this report was ever made public.

I realize that you Committee members are not involved with the bat issue on a day to day basis as I have been, but it is now a major problem for the NCAA and our Committee. I personally believe we need to take steps to control the bat performance race and bring the bats back more in line with wood performance starting in 1999. In a separate paper, I am recommending an interim course of action.

Sincerely,

Bill Thurston
Bill Thurston

P1

**1999 DIVISION I BASEBALL INJURY SURVEY
PITCHER'S STRUCK BY A BATTED BALL
(DIVISION I ONLY)**

*Report Compiled by
Bill Swanson
1313 Parker Station*

<u>INSTITUTION REPORTING</u>	<u># OF PITCHER'S HIT</u>	<u># OF FRACTURES OR CONCUSSIONS</u>
U. of Arkon	3	
Ala - Birmingham	6	
Appalachian State	7	
U. of Arizona	3	
Arizona State Univ.	3	
U. of Arkansas	6	
Austin Peay	4	
Bethune-Cookman	3	1 hand
Bowling Green Univ.	1	
Butler Univ.	3	
U. of Calif Santa Barbara	2	1 toe
Cal. Fullerton	1	
Cal. Northridge	2	1 head
Campbell	1	
Central Conn. St. Univ.	3	
Central Florida	3	
U. of Cincinnati	2	
Ciudad	1	
U. of Connecticut	2	
Duke	3	
East Carolina	5	
Eastern Kentucky	3	1 hand
Eastern Michigan	1	
Fairfield Univ.	2	
Purdue Univ.	3	
George Mason Univ.	2	
U. of Georgia	2	
Georgia State Univ.	2	
U. of Hartford	1	
U. of Hawaii	1	
U. of Illinois	3	
Illinois State	4	
Iowa State	3	
James Madison	3	
U. of Kansas	1	
Lafayette	1	
Lamar	5	2 face 1 BP 1 Scrim.
LaSalle	3	
Long Beach St.	1	
LSU	2	
Marist College	2	1 ribs
U. of Maryland	1	1 face
U. of Md. Coll. County	3	
Mercer Univ.	1	
Michigan State	2	

1999 Division I Injury Survey (continued)

- 2 -

Middle Tennessee State	2	
U. of Minnesota	2	
Monmouth Univ.	2	
Murray State	1	
U. of Nebraska	1	
UNLV	1	
New Mexico State Univ.	2	
U. of New Orleans	1	
New York Tech.	1	
Nichols State	8	
U. North Carolina-Wilmington	2	
Northeastern	1	
Northern Illinois	1	
Ohio Univ	2	
Oklahoma State Univ.	4	
Old Dominion	6	
Penn State Univ.	3	
Pepperdine	4	
Radford Univ.	1	
U. of Richmond	1	
Rider Univ.	1	
Sain Houston State	1	
San Diego State Univ.	1	
San Jose State	2	
Santa Clara Univ.	1	
Siena College	1	
South Carolina	6	
South Florida	2	
Southern Illinois U.	3	
Southern Mississippi	1	
Southwest Missouri State	7	
Southwest Texas State	1	
St. John's Univ.	6	
St. Mary's Coll. (Calif.)	1	
Stanford Univ.	3	
Stratton Univ.	1	
Tenn. Knoxville	1	
Tenn. Tech	1	
Texas A & M	3	
Texas Tech	3	
U. of Texas -- Arlington	1	Concussion
U. of Texas -- Austin	1	
U. of Texas -- San Antonio	6	
Texas Christian Univ.	2	
Towson Univ.	2	
Troy State	1	
Tulane	1	1 leg

P3

1999 Division I Baseball Injury Survey (continued)

- 3 -

UCLA	9	I face, I jaw
Valparaiso	4	
Vanderbilt Univ.	1	
U. of Vermont	3	
Virginia Commonwealth	6	
Wagner College	2	
Wake Forest	5	
Washington State Univ.	3	
Western Carolina	2	
Western Kentucky	2	
Wichita State	7	
U. of Wisconsin-Milwaukee	5	I wrist
Youngstown State	2	

106 of 274 Division I Institutions participated in this 1999 study = 39% participation

- There were a total of 274 injuries to pitchers, with 14 injuries during practice situations (one was a facial fracture).
- There were 260 pitchers struck by batted balls in a game or scrimmage situation for an average of 2.45 pitchers struck per reporting institution.

98% of the injuries from a batted ball were hit off an aluminum bat.

of fractures or concussions

Face	3, plus one in batting practice
Head	2, plus one concussion
Hand	2
Wrist	1
Ribs	1
Leg	1
Toe	1
	11, plus 1 concussion, 1 fracture in batting practice

Only ¹¹ of the top 25 ranked programs ^{in 1999} participated in this survey.

BY REPORTING INSTITUTION--NUMBER OF PITCHERS STRUCK BY BATTED BALLS

<u>Number of Strikes</u>	<u>Number Institution Reporting</u>	<u>Total #</u>
0	0	0
1	38	38
2	25	50
3	22	66
4	5	20
5	4	20
6	7	42
7	3	21
8	1	8
9	1	9
	<u>106</u>	<u>274</u>



JAPAN HIGH SCHOOL BASEBALL FEDERATION

c/o NAKAZAWA & SAEKI MEMORIAL BASEBALL HALL

22-25, EDOBORI 1CHOME, NISHIKU.

OSAKA, JAPAN 〒550

TEL (816) 443-4661 FAX (816) 443-7593

*Letter to Bill Thurston
from JH Rules Editor.*

P. S.

X This is my reply to your question about the two pitchers who were killed by batted balls and one pitcher who were seriously injured. *X*
was

date distance age experience
in Hi school

<i>Practice Soccer</i>	Nov. 91	15 meters (49.2 feet)	16ys 8 month <i>57-58 feet</i>	<u>practice</u> day time	regular ground
<i>Practice Soccer</i>	Mar. 98	15.4 M (50.5 F)	16ys 11 M <i>57-58 feet</i>	<u>practice</u> day time	regular ground

(above were killed)

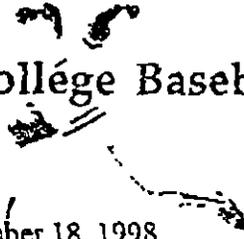
	Aug. 98	15.64 M (51.28 F)	<u>18ys</u> 3years	<u>Game</u> day time	Koshien stadium
--	---------	----------------------	--------------------	-------------------------	-----------------

(seriously injured)

In this case, we measured batted ball speed to the pitcher. Batted ball speed was 39.6 m/s (0.0246 mile per second) and ball reached to the pitcher by 0.399 second.

X note: Batted ball hit cheek and broken bone that sustain a severe injury which will take three months to heal completely. This happened in the national championship game.

Experience of a baseball before high school is unknown.



Amherst College Baseball

Coach Bill Thurston
Office Tel. 413-542-2291
Home Tel. 413-663-4026
Office Fax. 413-542-2026

Athletic Dept.
Amherst College
Amherst, Mass. 01002

December 18, 1998

To: Mr Greg Curtner 212-704-4410 (734-663-8624)
Mrs Elsa Cole 913-339-0030

From: Bill Thurston, NCAA Baseball Rules Editor

Subj: Non-wood Bat Issue

As the baseball rules editor, I am very concerned about the dilemma that the NCAA Executive Committee must resolve in the very near future. Whatever the decision, and none of the options are very appealing due to time restraints, I hope the decision on the bat will apply to all Division I, II, III, and J C programs for championship play.

If the Executive Committee decides to implement the recommendation of the Division I Championship Cabinet, as a temporary stop-gap compromise measure for 1999 only, and if they can get all bat manufacturers to guarantee in writing that they will reduce bat performance by increasing barrel wall thickness, this could be an effective and safe compromise.

My recommendations for New Specs for the 1999 season only:

1. -- Reduce bat diameter to 2 5/8 inches.
2. -- Reduce wt. - length ratio to minus 3 units, without the grip.
3. -- Increase barrel wall thickness of the alloy to a minimum of 125. (They have to add weight anyway, and adding it to the hitting area will increase durability as well as decrease the trampoline effect and the performance level.)

If the NCAA accepts only enforcing the diameter and weight-length specs, I personally believe this compromise position will also compromise the safety of the student-athlete. These two changes will reduce batting averages and power stats for the smaller and weaker hitters, (I'd estimate by 10-20%), but the stronger more talented hitter may actually generate more batted ball exit speed because the heavier the bat will bring more mass to the bat-ball collision. (Bat manufacturers have used this same argument when resisting adding weight.)

What I am recommending to the Committee is get a guarantee that the 1999 bat will perform under the level of bats which were manufactured from 1996-98. Manufacturers originally made this agreement in 1995 (to go back to the 1994 level) which they never did. We have documentation of that, and of course offensive stats increased to all time highs from 1996 through 1998.

- 2 -

Another point, if this recommendation is adopted, all bats will need a **visible certification mark** which umpires and opponents can readily observe that the bat is approved for 1999 competition. Otherwise there will be claims of illegal bats being used.

The other issue that needs to be agreed to in writing, is protection from liability in case of injury from a batted ball. If manufacturers agree to indemnify coaches and institutions from lawsuits due to batted ball injuries, it has to be all coaches and institutions who buy and use their bat, not just indemnity for coaches or programs under bat contracts. Otherwise, 80% college coaches and institutions would be left unprotected.

I personally believe that the NCAA's options are limited at this time because of the urgency of getting bats to institutions for the 1999 season. As I analyze the present situation, the NCAA Executive Committee could consider some of the following options

1. Continue the course which was recommended by the Rules Committee (July), and the Division I, II and III Championship Committees in November and December. Bats have to meet all 3 specs, (including exit-ball speed). This means that wood or wood composites might have to be used for championship play in 1999.
2. Follow the Division I Cabinet recommendation, but mandate all divisions play under the same rules, not only Division I.
3. Delay any change until August 1, 1999. This means the high performance bats of 1998, and even higher performing bats scheduled to be sold for 99 could be used. (Not a safe option!)

I don't believe any of these options are good. I think what I recommended earlier is the best alternative as a stop-gap measure and would ensure a safer and more balanced game.

I found it interesting, but not surprising, that once bat manufacturers learned that programs were going to wood composites for 1999, they suddenly could supply aluminum bats that met two of the recommended specifications, but yet did not control the performance level, or the safety, durability and cost issues.

I hope you find these concerns and suggestions helpful.

Sincerely,



Bill Thurston
NCAA Baseball Rules Editor

**Easton Study
July 1995**

Time to pitcher

BLACK MAGIC @1.02 BPF

<u>Mit speed</u>	<u>FPS</u>	<u>sec/ft</u>	<u>ft. pitcher</u>	
			<u>58</u>	<u>60</u>
20.0	117.3	0.009	0.494	0.511
50.0	132.0	0.006	0.430	0.455
100.0	146.7	0.007	0.365	0.409
110.0	161.3	0.005	0.300	0.372
120.0	176.0	0.006	0.330	0.341
130.0	160.7	0.005	0.304	0.315
140.0	205.3	0.005	0.282	0.292

REFLEX C-40S @1.07 BPF

<u>Hrt speed</u>	<u>FPS</u>	<u>sec/ft</u>	<u>ft. pitcher</u>	
			<u>58</u>	<u>60</u>
84.0	123.2	0.006	0.471	0.487
94.5	138.6	0.007	0.418	0.433
105.0	154.0	0.006	0.377	0.390
115.5	169.4	0.006	0.342	0.354
126.0	184.8	0.005	0.314	0.326
136.5	200.2	0.005	0.290	0.300
147.0	215.6	0.005	0.269	0.278

Automatic reaction times are measured at 20-30 ms

At a 110 mph hit to the pitcher, standing at 58 ft. from the plate, there is a 18 ms difference between the two b/s. This equates to a distance of 2.9 ft. or about one step.

Pitcher's reaction time should be tested at a distance of 52-53 feet not 58 & 60 feet

Reflex BPF is 1.15 to 1.17, not 1.07

EXHIBITS TO

**COMMENTS OF HILLERICH & BRADSBY CO. WITH RESPECT TO
PETITION CP 00-1, PETITION ON BASEBALL BATS**

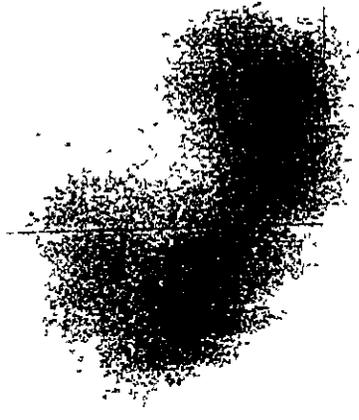
LIST OF EXHIBITS TO
COMMENTS OF HILLERICH & BRADSBY CO. WITH RESPECT TO
PETITION CP 00-1, PETITION ON BASEBALL BATS

<u>Exhibit</u>	<u>Description</u>
1	Complaint.
2	Special Verdict.
3	Order of Contempt.
4	U.S. Consumer Product Safety Commission ("CPSC") letter to J.W. MacKay, Jr., dated May 23, 2000.
5	Verification of Publishing - "MEN AT WORK: The Craft of Baseball" by George F. Will, including page 197.
6	Copy of Article - "Metal vs. Wood," by Dave Destler (<i>On the Mound</i> , Junior League Baseball, p.6, July/August 1998).
7	Subpoena To Produce Documents to the Custodian of Records for Mississippi State University; served August 21, 1998 with attached transcript; resumé of Jack W. MacKay, Jr.
8	NCAA News Release, dated July 12, 2000. "NCAA Baseball Rules Committee Recommends No Immediate Change In Equipment Rules."
9	Fax from Steve Baum to University of Mass at Lowell Research Foundation, dated January 18, 2000.
10	Little League Baseball Statement on Non-Wood Bats, 2000.
11	Letter, dated January 8, 1999 from Creighton J. Hale, Senior Advisor to Little League Baseball Inc., to Hillerich & Bradsby Co. and enclosed table reporting decrease in the number of pitchers hit by a batted ball in Little League Baseball for the years 1992-1997.
12	Copy of Article - "Sports Injuries: An Important Cause of Morbidity in Urban Youth (PEDIATRICS Vol 105 No.3, March 2000).
13	NFHS Press Release, dated July 29, 1999 - "Change in Bat Rule Proposed in High School Baseball."

Exhibit

Description

- 14 Baseball Coaches Association Memorandum from Jerry Miles, Executive Director, to NFHS Board of Directors regarding Proposed Bat Rule Changes, dated August 11, 1999.
- 15 Article - "Traumatic Brain Injury in High School Athletes." Authors: J.W. Powell and K.D. Barber-Foss. (JAMA, September 3, 1999-Vol 282. No 10).
- 16 Online Article - National Center for Catastrophic Sport Injury Research. Sixteenth Annual report, Fall 1982 - Spring 1998. Last updated September 8, 1999.
- 17 NCAA Baseball Injury Surveillance System for Academic Year 1998-1999 Total of all Schools, and prior years.
- 18 Transcript dated January 15, 1999 of rebroadcast of teleconference to announce the decision of the NCAA's Executive Committee regarding specifications for bats to be used in the 1999 NCAA baseball championships.
- 19 Professional Baseball Athletic Trainers Society On-Line Article - "Bat Survey - "Up The Middle Hits" And Their Relation To Injuries To Pitchers: Wood vs. Metal Bats, by Kent Biggerstaff.
- 20 Article - "Epidemiology of Collegiate Baseball Injuries" by E.G. McFarland and M. Wasik (*Clinical Journal of Sport Medicine* 1998).
- 21 "Baby Boomer Sports Injuries," dated April 2000, Consumer Product Safety Commission.
- 22 CPSC News Release - "CPSC Releases Study of Protective Equipment for Baseball," dated June 4, 1996.
- 23 Online Article - "Getting to the Heart of the Softer-Baseball Debate," (The Physician and Sportsmedicine. Vol. 27, No.9. September 1999).
- 24 Letter dated January 20, 1999 from Ronald Tellefsen, President, Babe Ruth League, Inc., to Hillerich & Bradsby Co.
- 25 Article - "Tigers take celebration to Assembly Center today" by Scott Rabalais, dated June 18, 2000. (The Baton Rouge Sunday Advocate: Sports).
- 26 Article - "COLLEGE BASEBALL: LSU's Bertman Retiring After Season," dated July 19, 2000. (The Atlanta Journal and Constitution: Sports Section).



~~Amended by Filing
3/2/98~~

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
TEXARKANA DIVISION**

HILLERICH & BRADSBY Co., §
PLAINTIFF NO. 1, §
v. §
JACK W. MACKAY, JR., §
DEFENDANT NO. 1, §
DELORES KAYE MACKAY §
DEFENDANT NO. 2, §
J.W. (TRIPP) MACKAY, III, §
DEFENDANT NO. 3, §
DAVID BINGHAM, §
DEFENDANT NO. 4, §
MICHAEL G. CLARK, §
DEFENDANT NO. 5, §
MICHAEL G. CLARK, INC., §
DEFENDANT NO. 6, AND §
RAWLINGS SPORTING GOODS COMPANY, INC., §
DEFENDANT NO. 7. §

CONSOLIDATED CIVIL ACTION
No. 5:97-CV-244
HON. DAVID FOLSOM

HILLERICH & BRADSBY'S FIRST AMENDED CONSOLIDATED COMPLAINT

For Hillerich & Bradsby Co.'s ("H&B") First Amended Consolidated Complaint, it states as follows:

Nature of the Case

1. This is a civil action for misappropriation of trade secrets and common law misappropriation of proprietary information, unfair competition, unfair business practices, diversion of corporate opportunity, breach of contractual and fiduciary duties, conversion, tortious interference with actual and prospective contracts and business relations, unjust enrichment, quantum meruit, indemnity, conspiracy, negligent misrepresentation, mail and wire fraud, interstate transportation of stolen money, money laundering, engagement in monetary transactions in property derived from specified unlawful activities, and violation of

the Racketeer Influenced and Corrupt Organizations Act ("RICO"). Plaintiff H&B seeks injunctive and declaratory relief, treble damages, punitive damages, attorney fees, and costs.

The Parties

2. Plaintiff H&B is a Kentucky corporation with its principal place of business located at 800 West Main Street, Louisville, Kentucky 40202.

3. The Defendants Jack W. MacKay, Jr. ("Jack MacKay") and Delores Kaye MacKay ("Kaye MacKay") are husband and wife, and reside in Mount Pleasant, Texas. J.W. (Tripp) MacKay, III ("Tripp MacKay") is the adult son of Jack MacKay; upon information and belief Tripp MacKay resides in Mount Pleasant, Texas. Jack, Kaye, and Tripp MacKay are hereinafter sometimes referred to as the "MacKays." Each of the MacKays has made an appearance herein.

4. David Bingham ("David Bingham") is an individual who resides at 4108 Wimbledon Drive, Lawrence, Kansas. Mr. Bingham has been served but has not yet appeared herein. Dave Bingham Baseball Enterprises, Inc. ("Baseball Enterprises") is a Kansas corporation which may be served at its principal place of business located at 4108 Wimbledon Drive, Lawrence, Kansas. Unless otherwise noted, David Bingham and Baseball Enterprises are hereinafter collectively referred to as "Bingham."

5. Michael G. Clark ("Michael G. Clark") is an individual who resides in Mount Pleasant, Texas. Mr. Clark has made an appearance herein. Michael G. Clark, Inc. ("Michael G. Clark, Inc.") is a Texas corporation with its principal place of business located at 501 Walnut Street, Mount Pleasant, Texas. Michael G. Clark, Inc. has made an appearance herein. Unless otherwise noted, Michael G. Clark and Michael G. Clark, Inc. are hereinafter collectively referred to as "Clark."

5-1-83

6. Rawlings Sporting Goods Company, Inc. ("Rawlings") is a Delaware corporation with its principal place of business located at 1859 Intertech Drive, Fenton, Missouri. Rawlings has made an appearance herein.

Jurisdiction and Venue

7. With the exception of Bingham, each of the Defendants has made an appearance and has therefore submitted to the jurisdiction of this Court.

8. This Court may exercise personal jurisdiction over Bingham pursuant to TEX. CIV. PRAC. & REM. CODE § 17.041, *et seq.*, because Bingham does business in the State of Texas and because he has established sufficient contacts with the state that the exercise of jurisdiction over him would be consistent with traditional notions of fair play and substantial justice. This Court also has jurisdiction over Bingham under RICO because Bingham resides in the United States and exercising jurisdiction over him would be fundamentally fair.

9. This Court has subject matter jurisdiction under 18 U.S.C. § 1964(a) and 28 U.S.C. §§ 1331, 1338 and 1367. In addition, this Court has jurisdiction under 28 U.S.C. § 1332 because there is diversity of citizenship between Plaintiff and Defendants and the amount in dispute exceeds \$75,000.

10. Pursuant to 28 U.S.C. § 1367, this Court has supplemental jurisdiction over all claims that are so related to the RICO claims that they form part of the same case or controversy.

11. The parties, with the exception of Bingham, have agreed that venue is proper in this Court. With respect to Bingham, venue is proper in this Court because a substantial part of the events or omissions giving rise to the claims against Bingham occurred within this District.

Background Facts

12. H&B is a well known sporting goods company that engages in the business of developing, manufacturing, promoting, distributing, and selling sporting good products, including baseball, softball, hockey, and golf equipment and products throughout the world. Over many years, H&B has invested substantial time, effort, and money in the research and development of such equipment and products, in the development of its promotional programs and goodwill, and in the development of its relationships with coaches and athletes who use its products at both the professional and collegiate levels.

13. In or about 1990, for valuable consideration, H&B and Jack MacKay entered into a consulting agreement. In or about 1992, for valuable consideration, H&B and Jack MacKay amended and restated the consulting agreement, entering into an Amended and Restated Consulting Agreement dated as of July 1, 1992 (the "Agreement").

14. Under the terms of the Agreement, services to be provided to H&B by Jack MacKay included: (a) product research and development; (b) promotion of H&B products to high schools and colleges; (c) evaluation of H&B products with respect to competitor's products; (d) services regarding H&B's collegiate baseball and softball advisory programs; and (e) other services regarding H&B's products.

15. Because of the competitive nature of the sporting goods business, H&B's research and development projects, and the terms of its collegiate baseball and softball contracts, are confidential, proprietary and trade secret information. The confidential, proprietary and trade secret nature of H&B's research and development projects and its baseball and softball contracts were made known to Jack MacKay and made a part of his Agreement with H&B.

16. Pursuant to the Agreement, Jack MacKay has been actively involved in the research, development, promotion and distribution of H&B's products and has had access to and possesses confidential and proprietary information and trade secrets of H&B.

17. In consideration for his contractual obligations, Jack MacKay has received hundreds of thousands of dollars and other valuable support and consideration from H&B. Under the terms of the Agreement, Jack MacKay was to be paid three thousand dollars per month during the contract term and was to be reimbursed for certain expenses. From November 1993 through September 1994 Jack MacKay was paid \$4,000 per month and an additional \$13,917 per month for certain expenses. Since October of 1994 of the contract term, H&B paid Jack MacKay \$8,333.33 per month, plus the additional \$13,917 per month for certain expenses. In addition, H&B continued to reimburse Jack MacKay for certain other expenses. H&B duly exercised its option to keep the Agreement in place through June 30, 1998. The Agreement contains further options whereby H&B can extend it for four additional years.

18. The Agreement contains a non-competition covenant prohibiting Jack MacKay from directly or indirectly competing against H&B during the term of the Agreement and for a period of 24 months thereafter. The Agreement also provides that upon the termination of the term of the Agreement, Jack MacKay shall promptly deliver to H&B all "Company Products," as defined in the Agreement, information, records, data, and materials in his possession or control related to Company Products or Jack MacKay's services under the Agreement. The Agreement further provides that Jack MacKay will use his best efforts to promote the interests of H&B and perform his services in accordance with applicable laws and policies.

19. Jack MacKay's Agreement with H&B provides that all "Ideas, Designs and Patents" (which includes without limitation ideas and inventions regarding baseball and softball bats and golf clubs that Jack MacKay conceived or made individually or with others) shall be and remain the sole property of H&B. Jack MacKay's Agreement with H&B also provides that all research and development services conducted by Jack MacKay individually or with others were for the benefit of H&B.

20. The Agreement also requires Jack MacKay not to divulge, furnish or make accessible to third persons any information pertaining to: (i) the research and development activities of H&B; (ii) information with respect to H&B's operations, finances, customers, plans, "Ideas, Designs and Patents," records, products, or Jack MacKay's services under the Agreement which is not generally made available by H&B to the public; or (iii) any trade secrets, confidential or other proprietary information of H&B.

21. Kaye MacKay, the wife of Jack MacKay, also served in a position of trust and confidence and in a fiduciary and contractual role with H&B. She actively and in concert with Jack MacKay assisted him with his services to H&B, including but not limited to H&B's collegiate contracts, promotions and relationships with baseball and softball coaches and universities. Since October 1994, she has been paid \$2,500 per month by H&B for these services. For numerous months prior to October 1994, she was paid \$1,366.67 per month by H&B. Kaye MacKay was also reimbursed by H&B for certain expenses related to these services. Kaye MacKay also has had access to and possesses confidential and proprietary information and trade secrets of H&B. In connection with Kaye MacKay's relationship with and performance of her functions for H&B, she was exposed to many aspects of H&B confidential and proprietary business.

22. Both Jack and Kaye MacKay were entrusted with significant and substantial responsibilities for H&B, in addition to being entrusted with H&B confidential and trade secret information. The special confidence placed in each of them required the MacKays, both in equity and in good conscience, to act in good faith and with due regard to the interests of H&B.

23. In her position of trust and confidence and fiduciary and contractual capacity, Kaye MacKay was actively involved in the negotiation and administration of H&B's collegiate softball contracts across the country. The contracts contain a confidentiality provision which prohibits the release of any information or terms of the contract to anyone other than designated third parties. Kaye MacKay understood these contracts to be confidential information of H&B.

24. While engaged by H&B, Jack MacKay and Kaye MacKay both had direct and indirect access to H&B's trade secrets and proprietary and confidential information, including but not limited to proprietary product information, H&B's methods, plans, devices, and processes, the details of H&B's collegiate baseball and softball programs, H&B's business records, inventions, technologies, manufacturing processes, data, trademark information, and lists and other compilations of customer and marketing information. These trade secrets and proprietary and confidential information of H&B were developed and arose through the substantial expenditure of H&B's time, money and business development efforts.

25. H&B's trade secrets and other confidential and proprietary information have enabled H&B to obtain the fair and lawful competitive advantage it enjoys over competitors, including Rawlings, who did not know or have the right to use the trade secrets and other confidential and proprietary information of H&B.

26. In connection with Jack MacKay's research and development work for H&B, a patent application for an invention involving an air bladder for a baseball bat was filed with the U.S. Patent and Trademark Office (hereafter "Bat Patent"). The invention has been incorporated into a line of H&B bats and is marketed under the trademark "Air Attack." The MacKays contend that Jack MacKay's wife, Kaye MacKay, and son, Tripp MacKay, were co-inventors of the Bat Patent. Despite H&B's ownership of all "Ideas, Designs and Patents" under the Agreement (which includes, without limitation, ideas and inventions regarding baseball and softball bats that Jack MacKay conceived or made individually or with others) and Jack MacKay's obligation under the Agreement to assign all patent applications pertaining to his work to H&B, the names of Kaye MacKay and Tripp MacKay were surreptitiously included on the patent application as co-inventors without H&B's knowledge or consent and without an assignment to H&B.

27. H&B would show that to the extent that Kaye and Tripp MacKay are or were in possession of information pertaining to the research and development being done by H&B on the Bat Patent, they received such information improperly from Jack MacKay, in violation of his contractual and common law duties not to disclose such trade secret and highly proprietary information. H&B would also show that to the extent that such confidential and proprietary information was received by Kaye and Tripp Jack MacKay, each of them knew it to be proprietary to H&B and the sole and exclusive property of H&B, pursuant to the Agreement between Jack MacKay and H&B.

28. Despite their awareness of the confidential and proprietary nature of the information they received concerning the Bat Patent, Kaye and Tripp MacKay nevertheless attempted to use confidential, proprietary and secret H&B information for their personal use, benefit and economic advantage, to the extreme detriment and harm of H&B.

29. Kaye MacKay and Tripp MacKay were aware that the information they used in connection with the Bat Patent was confidential and proprietary to H&B. Kaye and Tripp MacKay were also aware that Jack MacKay had both contractual and fiduciary obligations to hold such information secret. Despite their knowledge of these facts, Kaye and Tripp MacKay attempted to claim individual rights to the Bat Patent, instead of recognizing their obligations not to wrongfully receive such proprietary information from Jack MacKay, or alternatively, their obligations to assign any rights they claimed to the Bat Patent to H&B.

30. Tripp MacKay had no relationship with H&B permitting him access to any of H&B's confidential or proprietary information. As a result, to the extent that he claims any rights to the Bat Patent, such conduct constitutes an unlawful conversion of the exclusive property of H&B.

31. Without H&B's knowledge or consent, both Kaye MacKay and Tripp MacKay were named as "co-inventors" on the Bat Patent application filed in the U.S. Patent and Trademark Office. Both Kaye MacKay and Tripp MacKay stood silent as the Bat Patent application was fully paid for by H&B. The MacKays knew that all patents developed by Jack MacKay, individually or with others, were required to be assigned to H&B and that H&B would pay for those patent applications. Neither Kaye MacKay nor Tripp MacKay took any action to suggest to H&B that the Bat Patent was to be treated any differently than any other patents of H&B, and H&B relied to its detriment on such action, or lack of action by Tripp and Kaye MacKay.

32. H&B would show that all information received and used by Kaye and Tripp MacKay in connection with the Bat Patent was received by improper means. Neither Kaye MacKay nor Tripp MacKay has any right to use the information, or the patents or products derived therefrom, for their own benefit or for the benefit of any third party.

33. On information and belief, Kaye MacKay and/or Tripp MacKay have attempted to sell or enter into licensing agreements related to the Bat Patent and disclose proprietary and confidential information with respect thereto.

34. Another product of Jack MacKay and H&B's research and development efforts concerned a novel invention for golf clubs. This invention is reflected in a patent application filed in the U.S. Patent and Trademark Office (hereafter "Golf Club Patent").

35. Jack MacKay represented, warranted and covenanted to H&B in the Agreement that none of the "Ideas, Designs, and Patents" as defined in the Agreement (including without limitation the Golf Club Patent application) would violate any ownership or other right of any third party.

36. In connection with the assignment to H&B of the Golf Club Patent application, Jack MacKay covenanted and agreed with H&B in a sworn written instrument on August 29, 1997 that Jack MacKay and George Manning were the lawful owners of the complete right, title and interest in and to the Golf Club Patent application and the invention thereof. Kaye MacKay has now asserted an ownership interest in the Golf Club Patent application.

37. During the summer of 1997, H&B learned that Jack MacKay was engaging in one or more unlawful schemes designed to improperly convert property belonging to H&B to his own benefit, to divert to himself and to others corporate opportunities belonging to H&B, and to take other actions detrimental to H&B's interests.

38. Jack MacKay has wrongfully converted and sold H&B products for his own account. Jack MacKay has also schemed with third parties, including Defendants Clark and Bingham, to sell H&B equipment without authorization, launder the money, and convert the proceeds to his personal benefit and to the benefit of third parties. In addition, Jack MacKay

has falsified and improperly tendered invoices to H&B for payment of personal items not related to H&B's business, or which are not H&B's obligation.

39. By letters postmarked and faxed August 29, 1997, Jack MacKay and Kaye MacKay notified H&B that they were "terminating" their services to H&B, despite the fact that Jack MacKay was under contract to H&B through June 30, 1998, with an additional four years at the option of H&B.

40. Jack MacKay and his wife and others have conspired to deny H&B its rights, possession, and access to its inventions, as well as its real and personal property. The MacKays are in possession of, using, and/or attempting to sell H&B property, inventions, and confidential and proprietary information and trade secrets, in violation of their duties to H&B and to the detriment of H&B.

41. Prior to notifying H&B that they were terminating their services to H&B, the MacKays met with Rawlings, one of H&B's major competitors. The MacKays arranged for Rawlings' president and CEO, and vice president of marketing who is also in charge of Rawlings' research and development, to tour H&B's research and development facility in Mount Pleasant, Texas. The MacKays further offered to assist Rawlings in developing certain products and programs identical to those of H&B. The foregoing was in furtherance of a conspiracy to divert H&B's confidential and proprietary information and trade secrets to their benefit.

42. Upon information and belief, knowing that Jack and Kaye MacKay were still contractually bound to H&B, Rawlings met with them at the H&B facility in Mount Pleasant and discussed confidential and proprietary information of H&B and its business. They further discussed what Jack and Kaye MacKay could bring to Rawlings. Jack and Kaye

MacKay disclosed, and have threatened to disclose, H&B's confidential and proprietary information and trade secrets to Rawlings.

43. In addition, while still engaged by H&B to represent H&B in its collegiate promotion programs, Jack and Kaye MacKay covertly met with Rawlings to negotiate an agreement wherein Kaye MacKay has agreed to develop a collegiate advisory program in direct competition with H&B.

44. Jack MacKay actively participated in these negotiations with Rawlings and has arranged to compete with H&B through the covert agreement between Rawlings and Kaye MacKay. The day after the covert agreement between Kaye MacKay and Rawlings was signed, and after entering into a "Memorandum of Agreement" with Rawlings regarding his own services, Jack MacKay wrongfully terminated his Agreement with H&B in furtherance of this conspiracy.

45. The agreement between Kaye MacKay and Rawlings wrongfully calls for Kaye MacKay to use H&B's facilities in Mount Pleasant to perform services for Rawlings. The facilities are further to be made available to Rawlings, despite the fact that the facilities are the property of H&B. In spite of H&B's request that possession of the facilities be returned, Jack and Kaye MacKay have wrongfully denied H&B possession of the facilities.

46. Jack MacKay's contacts with Rawlings directly violate his non-competition, non-disclosure, and fiduciary duties under the Agreement with H&B. Upon information and belief, Jack MacKay is wrongfully using his wife as an agent and co-conspirator to avoid his contractual obligations to H&B. Kaye MacKay's activities with Rawlings are as an agent for Jack MacKay, who is the principal, and Rawlings has knowingly acquiesced in or induced such activities.

47. Kaye MacKay's activities with Rawlings also violate her contractual and fiduciary duties to H&B. Her activities further threaten the disclosure of H&B's confidential and proprietary information and trade secrets including, but not limited to, the confidential provisions of H&B's collegiate contracts. The purported agreement between Rawlings and Kaye MacKay, whereby she has agreed to develop a collegiate softball program like the one she administered for H&B, would put Kaye MacKay in a position where her use and disclosure of H&B's confidential information would be inevitable.

48. On information and belief, on behalf of Rawlings, Kaye MacKay contacted coaches whom she knew were under contract with H&B in order to induce such coaches to terminate their contracts with H&B. At the time of her contacts with these coaches on behalf of Rawlings, these coaches were under contract with H&B. There was also a reasonable probability that they would continue to contract with H&B in the future, but for the actions and conduct of Kaye MacKay.

49. H&B would show that Kaye MacKay's actions in this regard were with malice, and with the intent to prevent H&B's relationships with these coaches from continuing, as well as with the purpose of causing harm to H&B and its coaching relationships and contracts.

50. These actions by Kaye MacKay were without privilege or justification and actual harm has occurred and will continue to occur to H&B unless she is permanently restrained and enjoined from any further actions or conduct in this regard.

51. Rawlings is aware that the MacKays: (a) have H&B confidential and proprietary contracts, records, and trade secrets; (b) are refusing to return such information and property to H&B; (c) are wrongfully denying H&B possession of its research facility; and (d) have contractual and fiduciary commitments to H&B. Nevertheless, Rawlings has engaged in unlawful dealings with the MacKays, to the detriment of H&B.

52. The information in the possession and control of the MacKays has taken H&B years to develop at great financial risk and expense, and is not readily ascertainable through public sources. The disclosure of such information to Rawlings, or any other competitor, would seriously damage H&B's market position and competitive advantage in the industry and would cause irreparable injury to H&B. Jack MacKay has also threatened to disclose such information to other competitors.

53. In connection with their services to H&B, Jack MacKay and Kaye MacKay provided photographs to H&B for use in its catalogs. Jack MacKay and Kaye MacKay supplied H&B and/or its representatives with what H&B believes to be a photograph of Tripp MacKay for use in H&B's 1997 catalog. Jack and Kaye MacKay represented to H&B and its representatives that use of this photograph of their son, Tripp, in H&B's 1997 catalog was with the authorization, approval or consent of Tripp MacKay.

**COUNT I: VIOLATION OF TRADE SECRET LAW AND COMMON LAW
MISAPPROPRIATION OF PROPRIETARY INFORMATION
(JACK MACKAY, KAYE MACKAY, TRIPP MACKAY, AND RAWLINGS)**

54. H&B incorporates by reference the allegations previously set forth in paragraphs 1- 53.

55. While engaged by H&B, Jack MacKay and Kaye MacKay had direct and indirect access to H&B's trade secrets, including but not limited to proprietary product information, H&B's methods, devices, and processes for coordinating H&B's collegiate baseball and softball programs, H&B's business records, inventions, technologies, manufacturing processes and data, trademark information and compilations of customer and marketing information.

56. Upon information and belief, Tripp MacKay wrongfully had direct and indirect access to H&B trade secret and proprietary information.

57. The claims of inventorship of Kaye MacKay and Tripp MacKay in the Bat Patent application, if any, and of Kaye MacKay in the Golf Club Patent application, if any, are the result of misappropriation of H&B's trade secret information.

58. Such proprietary information, devices, methods and processes derive independent economic value, actual or potential, from not being generally known, and not being readily ascertainable by proper means by other persons, such as Rawlings, who can obtain economic value from their disclosure or use. As such, these devices, methods, proprietary information, and processes constitute "trade secrets." These trade secrets and proprietary and confidential information of H&B were developed through expenditure of H&B's time, money and business development efforts.

59. In addition to the foregoing, Jack MacKay and Kaye MacKay, by virtue of their work in connection with H&B's collegiate advisory programs, possess confidential and proprietary information concerning H&B's contractual relations with various collegiate advisory programs and the contents of H&B's coaches contracts. This information constitutes trade secrets belonging to H&B. Jack MacKay, Kaye MacKay and Rawlings have misappropriated these trade secrets, and improperly sought to convert them to the use and benefit of Rawlings.

60. The trade secrets and other confidential and proprietary information which Jack MacKay, Kaye MacKay and Tripp MacKay have acquired belong to H&B and have enabled H&B to obtain fair and lawful competitive advantages over those, including Rawlings, who did not know or have the right to use the trade secrets and other confidential or proprietary information of H&B.

61. The acts of Jack MacKay, Kaye MacKay, Tripp MacKay and Rawlings constitute violations of applicable trade secret law and principles of common law.