

# Results from the 2008 NCAA Study on Collegiate Wagering

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## 2008 Study on Collegiate Wagering

- This is the NCAA's second national study on the wagering behavior of U.S. college student-athletes.
- The 2008 study is a replication of the original 2004 study proposed by the NCAA Sports Wagering Task Force.
- Study authors are Dr. Thomas Paskus, Todd Petr and Roberto Vicente from NCAA Research, in collaboration with Dr. Jeffrey Derevensky, McGill University.



## Primary Goals of Current Study for NCAA Staff and Membership

- Provide information on changes in the prevalence of various wagering behaviors among student-athletes (2008 vs. 2004).
- Examine differences in these behaviors as a function of sport, gender, division, etc.
- Assess student-athlete awareness of NCAA sports wagering rules.
- Determine whether education programs have been successful in moderating gambling behavior and if alternate types of programming may better serve student-athletes.



## Data Source

- Data were collected in a systematic way with the assistance of the Faculty Athletics Representatives (FARs) at NCAA member institutions throughout the U.S.
- All 1000+ NCAA member institutions were approached to participate. Each school was asked to survey student-athletes on one to three teams. As data were submitted anonymously, institutional response rate is not known exactly, but was estimated to be >60 percent.
- The 2008 survey instrument was significantly modified and streamlined, removing many items related to other risky youth behaviors (e.g., substance use, criminal behavior).



## Survey Administration

- The teams surveyed on each campus were selected by the NCAA based upon a stratified sampling protocol designed to provide sufficiently large and representative samples within sports/divisions.
- The FAR (Faculty Athletics Representative) at each institution was contacted to help in the administration of the study.
- A specific protocol/script was provided to each FAR. The script emphasized that participation was voluntary and the protocol was designed to maximize the anonymity of participating student-athletes and schools.
- FARs were instructed to survey members of a sampled team at the same time without coaches or other athletics personnel present. The FAR was also instructed not to handle any completed survey and to allow a student-athlete participant to seal the collection package for delivery to the third-party vendor that compiled the data.



## Data Cleaning

- Since many of the items being studied are low-baserate events, which in some cases may be appealing for insincere respondents to endorse, a high data cleaning standard was applied.
- Data were reviewed extensively via a series of validity checks and Item Response Theory (IRT) techniques to identify questionable patterns of response.
- Cases were excluded from analyses if strong evidence existed of insincere response (e.g., respondent appears to be a non-gambler in the first half of the survey and a heavy gambler in the second half; respondent endorses a combination of items with a statistical likelihood of close to zero).
- The data cleaning standards applied to the 2008 data were also applied retroactively to the data from the 2004 study.



## Comparing 2004 and 2008 Responses

- Because the survey was modified significantly for 2008, including the addition of a number of new items, comparisons are not available across sample for all items.
- Since sampling strategies were somewhat different in 2004 and 2008, several steps were taken to equate results as best possible:
  - Comparisons were limited to 22 sports (11 men's sports and 11 women's sports) that were adequately sampled in each NCAA division within each year.
  - Sample data for both 2004 and 2008 were weighted in comparison to 2008 national participation rates within the 22 sports. The weighting functions developed and applied to these data effectively account for differences in sampling proportions within each cohort and then scale results from both years in relation to current national participation figures.
- In total, comparative data are available for 19,354 student-athletes from 2004 and 19,371 student-athletes from 2008.



## Study Definitions – Gambling Frequency

- Social gambling: Self-reported participation in a particular gambling activity on one or more occasion during the past year.
- Frequent gambling: Self-reported participation in a particular gambling activity once per month or more during the past year.
- Heavy gambling: Self-reported participation in a particular gambling activity once per week or more during the past year.



# Results – Part 1:

## Gambling Behaviors



### Summary of Findings on Gambling Behaviors

1. In aggregate, for most gambling behaviors, we have seen levels of social and frequent participation decrease in 2008 compared to 2004.
2. The primary exceptions to this decrease are (a) the participation of males in casino-style gambling on the Internet for money and (b) social levels of sports wagering.
3. Although more student-athletes might be termed “non-gamblers” in 2008, the number of student-athletes who could be considered problem gamblers is similar to what was seen in 2004.
4. As in the general population, males are much more likely to be social and frequent participants in all gambling activities.



## Wagering Behaviors among Male Student-Athletes (2004 vs. 2008)

	2004 Study			2008 Study		
	Past Year	1 x / mo+	1 x / wk+	Past Year	1 x / mo+	1 x / wk+
Played cards for money	46.8%	20.6%	8.4%	45.9%	14.3%	3.9%
Bet horses, dogs	9.8%	2.0%	0.5%	8.5%	1.4%	0.4%
Games personal skill	39.7%	16.3%	5.8%	33.1%	13.0%	4.4%
Dice, craps	13.4%	4.3%	1.5%	11.7%	3.9%	1.2%
Slots	19.8%	3.6%	0.9%	15.1%	2.0%	0.3%
Lottery tickets	36.2%	11.1%	3.0%	31.4%	9.1%	2.1%
Played stock market	10.2%	4.7%	2.2%	9.2%	4.5%	2.1%
Commercial bingo	6.5%	0.9%	0.3%	6.9%	1.1%	0.4%
Gambled in casino				22.9%	3.8%	0.6%

Note: Percentages displayed are cumulative rather than independent. A student-athlete reporting having wagered 'once/week or more' is also included in the 'once/month or more' and 'past year' figures.

## Wagering Behaviors among Male Student-Athletes (2004 vs. 2008)

	2004 Study			2008 Study		
	Past Year	1 x / mo+	1 x / wk+	Past Year	1 x / mo+	1 x / wk+
Casino games on Internet for money	6.8%	2.8%	1.4%	12.3%	4.7%	2.0%
Bet on sports	23.5%	9.6%	4.7%	29.5%	9.6%	2.7%

Note: Percentages displayed are cumulative rather than independent. A student-athlete reporting having wagered 'once/week or more' is also included in the 'once/month or more' and 'past year' figures.

## Wagering Behaviors among Female Student-Athletes (2004 vs. 2008)

	2004 Study			2008 Study		
	Past Year	1 x / mo+	1 x / wk+	Past Year	1 x / mo+	1 x / wk+
Played cards for money	19.0%	4.4%	1.3%	10.7%	1.3%	0.3%
Bet horses, dogs	4.8%	0.4%	0.1%	3.2%	0.1%	0.0%
Games personal skill	14.1%	3.2%	0.7%	7.2%	1.2%	0.1%
Dice, craps	3.5%	0.7%	0.3%	2.2%	0.3%	0.0%
Slots	14.3%	1.3%	0.2%	9.9%	0.5%	0.1%
Lottery tickets	29.7%	5.4%	1.2%	24.0%	3.5%	0.7%
Played stock market	3.5%	1.3%	0.6%	2.1%	0.6%	0.2%
Commercial bingo	7.3%	0.8%	0.0%	6.8%	0.8%	0.1%
Gambled in casino				11.0%	0.6%	0.0%

Note: Percentages displayed are cumulative rather than independent. A student-athlete reporting having wagered 'once/week or more' is also included in the 'once/month or more' and 'past year' figures.

## Wagering Behaviors among Female Student-Athletes (2004 vs. 2008)

	2004 Study			2008 Study		
	Past Year	1 x / mo+	1 x / wk+	Past Year	1 x / mo+	1 x / wk+
Casino games on Internet for money	2.1%	0.8%	0.4%	1.9%	0.2%	0.0%
Bet on sports	6.7%	1.5%	0.6%	6.6%	0.8%	0.2%

Note: Percentages displayed are cumulative rather than independent. A student-athlete reporting having wagered 'once/week or more' is also included in the 'once/month or more' and 'past year' figures.

## DSM Gambling Screen (2004 vs. 2008)

<b>Males</b>	<b>2004 Study</b>	<b>2008 Study</b>
Non-gambler	29.3%	33.8%
Social gambler	64.0%	60.8%
At-risk gambler	4.6%	2.5%
Probable pathological gambler	2.1%	2.9%

  

<b>Females</b>	<b>2004 Study</b>	<b>2008 Study</b>
Non-gambler	51.1%	61.5%
Social gambler	48.1%	37.6%
At-risk gambler	0.7%	0.3%
Probable pathological gambler	0.1%	0.6%

## Results – Part 2: Sports Wagering

## Summary of Findings on Sports Wagering

1. Social sports wagering (defined here as having gambled on sports once or more in the past year) is generally higher for male student-athletes in 2008. Frequent sports wagering (defined here as gambling on sports once/month or more) is similar for males in 2008 vs. 2004. Heavy sports wagering (defined here as wagering once/week or more) decreased in 2008.
2. Among females, the level of social sports wagering is similar in 2004 and 2008 but frequent and heavy sports wagering decreased in the 2008 sample.
3. As in 2004, sports wagering is much more prevalent in Divisions II and III than in Division I.



### Percentage of Male Student-Athletes Reporting That They Wager on Sports (by NCAA Division)

<b>Social</b>	<b>2004 Study</b>	<b>2008 Study</b>
<b>At all in past year</b>		
Division I	17.1%	22.4%
Division II	20.6%	27.9%
Division III	30.7%	36.9%

<b>Frequent</b>	<b>2004 Study</b>	<b>2008 Study</b>
<b>Once per month+</b>		
Division I	6.6%	6.8%
Division II	8.7%	9.4%
Division III	12.8%	12.1%

<b>Heavy</b>	<b>2004 Study</b>	<b>2008 Study</b>
<b>Once per week+</b>		
Division I	2.8%	1.9%
Division II	4.1%	2.9%
Division III	6.7%	3.2%

Note: Percentages displayed are cumulative rather than independent. A student-athlete reporting having wagered 'once/week or more' is also included in the 'once/month or more' and 'past year' figures.



### Percentage of Female Student-Athletes Reporting That They Wager on Sports (by NCAA Division)

<b>Social</b>	<b>2004 Study</b>	<b>2008 Study</b>
<b>At all in past year</b>		
Division I	4.6%	4.1%
Division II	7.9%	6.2%
Division III	8.1%	9.1%

<b>Frequent</b>	<b>2004 Study</b>	<b>2008 Study</b>
<b>Once per month+</b>		
Division I	0.9%	0.6%
Division II	2.1%	0.7%
Division III	1.7%	1.0%

<b>Heavy</b>	<b>2004 Study</b>	<b>2008 Study</b>
<b>Once per week+</b>		
Division I	0.3%	0.1%
Division II	1.0%	0.1%
Division III	0.7%	0.2%

Note: Percentages displayed are cumulative rather than independent. A student-athlete reporting having wagered 'once/week or more' is also included in the 'once/month or more' and 'past year' figures.

### Summary of Findings on Sports Wagering

4. Viewed across division, frequent sports wagering in baseball, men's basketball and football is similar in 2008 to what it was in 2004.
5. Men's golf (across division) stands out as having a high proportion of its student-athletes engaging frequently in sports wagering (20 percent in 2008 vs. 14 percent in 2004). In the 2008 study, men's golfers also stand out as the most pervasive gamblers across almost every type of gambling behavior studied.
6. Men's basketball players in Division I showed a decrease in frequent sports wagering in 2008. Frequent wagering was reported by a lower percentage of participants in that sport than all but two Division I men's sports.

**Percentage of Student-Athletes Reporting That They Wager on Sports at Least Once/Month**  
(Divisions Combined within Sports)

<b>Men's Sports</b>	<b>2004 Study</b>	<b>2008 Study</b>	<b>Women's Sports</b>	<b>2004 Study</b>	<b>2008 Study</b>
Baseball	12.3%	12.7%	Basketball	1.4%	1.2%
Basketball	9.9%	10.0%	Field Hockey	1.1%	0.2%
Football	8.6%	9.0%	Golf	2.1%	1.3%
Golf	14.2%	19.6%	Gymnastics	0.0%	0.5%
Ice Hockey	12.1%	7.6%	Lacrosse	3.6%	0.3%
Lacrosse	13.9%	10.1%	Softball	1.7%	1.2%
Soccer	10.9%	10.6%	Soccer	1.7%	0.6%
Swimming	5.7%	4.3%	Swimming	0.7%	0.9%
Tennis	8.8%	8.4%	Tennis	2.2%	0.8%
Track / Cross Country	4.9%	5.4%	Track / Cross Country	1.1%	0.6%
Wrestling	12.4%	6.2%	Volleyball	1.0%	0.4%

**Percentage of Division I Student-Athletes Reporting That They Wager on Sports at Least Once/Month**

<b>Men's Sports Division I only</b>	<b>2004 Study</b>	<b>2008 Study</b>	<b>Women's Sports Division I only</b>	<b>2004 Study</b>	<b>2008 Study</b>
Baseball	8.2%	9.5%	Basketball	0.9%	0.5%
Basketball	6.1%	4.5%	Field Hockey	0.9%	0.0%
Football	5.4%	6.0%	Golf	0.7%	1.7%
Golf	14.4%	20.5%	Gymnastics	0.0%	0.0%
Ice Hockey	9.2%	4.2%	Lacrosse	1.2%	0.0%
Lacrosse	9.7%	5.6%	Softball	0.3%	1.1%
Soccer	6.5%	6.9%	Soccer	0.9%	0.2%
Swimming	4.1%	3.4%	Swimming	1.2%	0.6%
Tennis	9.9%	6.7%	Tennis	1.2%	0.8%
Track / Cross Country	4.6%	5.3%	Track / Cross Country	1.3%	0.7%
Wrestling	8.5%	6.4%	Volleyball	0.7%	0.0%

## Summary of Findings on Sports Wagering

7. Among those males in 2008 who reported having wagered on sports, they were just as likely to wager on college sports as professional sports. Females were slightly more likely to bet on professional sports than college sports. The favorite wagering targets in both groups were the NFL and the NCAA men's basketball tournament.
8. Whereas male and female student-athletes were most likely to bet with friends, many male student-athletes also placed sports bets through modalities such as the internet and their cell phone/PDA.
9. Frequent sports gamblers may use any of a number of methods for placing bets. They also are more likely to place a variety of types of bets (e.g., point spread, over/under).



## Wagering Targets of Student-Athletes who Reported Sports Wagering in Past 12 Months

<b>2008 Study</b>	<b>Males</b>	<b>Females</b>
<b>Pro Sports (Any)</b>	<b>76.4%</b>	<b>67.6%</b>
NFL	69.2%	59.4%
NBA	31.0%	20.0%
MLB	29.0%	20.3%
Auto Racing	7.5%	5.2%
Other pro	30.1%	14.5%
<b>College Sports (Any)</b>	<b>74.1%</b>	<b>54.9%</b>
Football	48.4%	27.8%
Basketball (season)	37.5%	19.4%
Basketball (tourney)	62.6%	41.6%
Other college	19.1%	11.1%



## Methods Used for Placing Sports Bets (2008 Study)

<b>Wagered on sports at all during past year</b>	<b>Males</b>	<b>Females</b>
Bet with friends	92.7%	83.4%
Bet with a student bookie	7.8%	2.3%
Bet with an off-campus bookie	7.5%	2.4%
Bet via the Internet	22.3%	6.9%
Bet via telephone, cell phone, PDA	9.4%	6.0%
Bet at casino, sports book, lottery	18.5%	10.3%
Bet through an intermediary	6.7%	4.2%

<b>Wager on sports once per month+</b>	<b>Males</b>
Bet with friends	93.6%
Bet with a student bookie	15.3%
Bet with an off-campus bookie	16.0%
Bet via the Internet	40.4%
Bet via telephone, cell phone, PDA	20.0%
Bet at casino, sports book, lottery	28.6%
Bet through an intermediary	13.3%

% = Used that method at all during past year  
 N of frequent sports gamblers too small among females for analysis.

## Type of Sports Bets Placed (2008 Study)

<b>Wagered on sports at all during past year</b>	<b>Males</b>	<b>Females</b>
Win/lose	82.3%	73.3%
Over/under	24.3%	7.4%
Pools	33.6%	35.1%
Point spread	37.6%	23.7%
Proposition bets	4.9%	1.8%
Other	6.3%	5.9%

<b>Wager on sports once per month+</b>	<b>Males</b>
Win/lose	87.1%
Over/under	42.9%
Pools	38.8%
Point spread	56.2%
Proposition bets	10.3%
Other	8.3%

N of frequent sports gamblers too small among females for analysis.

## Results – Part 3:

# Internet Wagering



### Summary of Findings on Internet Wagering

1. While the playing of free casino-style games on the Internet decreased among student-athletes from 2004 to 2008, playing such games for money on the Internet increased among males in 2008.
2. The number of student-athletes placing a sports bet over the Internet nearly doubled from 2004 to 2008.
3. Student-athletes reported paying for Internet sports wagering using any of a number of methods.



## Casino Games on the Internet

- At the same time that we have seen increases in internet gambling for money among males, the percentage of student-athletes engaging in free casino-style games on the Internet has decreased:
  - Males: 47 percent ever played in 2004 vs. 41 percent in 2008;
  - Females: 31 percent ever played in 2004 vs. 17 percent in 2008.



## Internet Sports Wagering

- Among those student-athletes who wagered on sports at least once in the prior 12 months:
  - 2004:
    - 10.9 percent of males reported placing a sports bet over the Internet
    - 3.3 percent of females reported placing a sports bet over the Internet
  - 2008:
    - 18.8 percent of males reported placing a sports bet over the Internet
    - 5.5 percent of females reported placing a sports bet over the Internet



## Method of Payment among those Student-Athletes Who Have Ever Wagered on Sports over the Internet

<b>2008 Study</b>	<b>Males Ever Wagered over Internet</b>	<b>Males Wagering on Sports 1/mo+</b>
Electronic funds transfer to third party company	18.1%	18.8%
Wire transfer	3.9%	5.1%
International debit card	4.4%	5.6%
PayPal	20.3%	17.5%
Credit card	49.3%	51.6%
Other	21.5%	21.6%

## Results – Part 4: Fantasy Sports Participation

## Summary of Findings on Fantasy Sports Participation

1. Fantasy sports participation among student-athletes is generally higher in 2008 than 2004.
2. The primary fantasy sport of interest is the NFL but a substantial number of student-athletes reported participating in collegiate fantasy sports.



## Participation in Fantasy Sports (2004 vs. 2008)

<b>Males</b>	<b>2004 Study</b>	<b>2008 Study</b>
Participated in free fantasy league	37.6%	50.0%
Participated in fantasy league with entry fee and prize money	15.5%	17.0%

<b>Females</b>	<b>2004 Study</b>	<b>2008 Study</b>
Participated in free fantasy league	5.5%	8.4%
Participated in fantasy league with entry fee and prize money	2.7%	2.4%

### Fantasy Sports Played by Student-Athletes who Reported Fantasy League Participation in Past 12 Months

<b>2008 Study</b>	<b>Males</b>	<b>Females</b>
NFL	64.4%	33.6%
NBA	20.9%	15.7%
MLB	35.9%	19.0%
PGA	3.7%	1.6%
NASCAR	2.7%	1.5%
College Football	8.4%	8.0%
College Basketball	21.0%	38.7%
Other	12.7%	10.7%

### Additional Findings on Fantasy Sports Participation

3. Only 34 percent of males and 38 percent of females currently consider it gambling to participate in a fantasy league with an entry fee and prize.
4. Of those student-athletes participating in fantasy sports in the past year, 7.2 percent of males and 1.8 percent of females played in a league with an entry fee of \$50 or more. 2.1 percent of males and 0.7 percent of females played in a league with an entry fee of \$150 or higher.
5. Among student-athletes playing fantasy sports in the past year, 54 percent of males and 33 percent of females participated in more than one league.
6. 48 percent of males and 13 percent of females have participated in free sports-related contests on the Internet.

## Results – Part 5:

### Genesis, Companions and Reasons for Gambling



### Genesis of Gambling Behaviors

- In the 2008 study, male student-athletes generally reported starting gambling earlier than females:
  - Males = 25.5 percent prior to H.S.; 66.3 percent in H.S.; 8.2 percent in college
  - Females = 13.5 percent prior to H.S.; 63.0 percent in H.S.; 23.5 percent in college
- No differences in regular sports wagering behavior was seen as a function of year in college.
- The entry point for male student-athletes was most typically card playing for money among friends.
- Female student-athletes did not show a common entry point.



## Gambling Companions

- When asked about their most likely gambling partners, males most frequently cited teammates or other student-athletes. Frequent sports gamblers were even more likely to cite teammates or others in athletics as their primary gambling companions.
- Females reported being most likely to gamble with their significant other or a family member. Relatively few reported gambling primarily with teammates or other student-athletes.
- Less than 10 percent of males, females or frequent sports gamblers reported being most likely to gamble alone. Very few student-athletes said their primary gambling companions were people with whom they did not normally interact.



### Gambling Companions of Student-Athletes who Reported any Gambling Behavior in Past 12 Months

2008 Study	Males	Females
Teammates, other student-athletes or other students involved in athletics program	34.5%	10.6%
Other friends or co-workers	29.3%	22.5%
Significant other or family	13.0%	52.2%
Other students in residence hall or apartment	10.7%	5.4%
Alone (including online)	8.5%	7.9%
Fraternity/sorority members	2.3%	0.5%
People specific to gambling	1.8%	0.9%



## Gambling Companions of Male Student-Athletes who Reported Wagering on Sports Frequently in Past 12 Months

2008 Study	Males Wagering on Sports 1/mo+
Teammates, other student-athletes or other students involved in athletics program	42.4%
Other friends or co-workers	23.5%
Significant other or family	8.2%
Other students in residence hall or apartment	12.3%
Alone (including online)	8.6%
Fraternity/sorority members	2.2%
People specific to gambling	2.8%

## Reasons to Gamble

- Males reported gambling primarily for fun (67 percent), to win money (42 percent), for the excitement (35 percent) or for the competition (29 percent).
- Females overwhelmingly reported gambling to have fun (75 percent), with smaller percentages citing winning money (26 percent), excitement (22 percent) or for the competition (14 percent).
- Males who wagered on sports once/month or more were slightly less likely to report gambling for fun (61 percent) and more likely to cite gambling to win money (62 percent), for the excitement (54 percent) or for the competition (44 percent).

### Self-Reported Reasons for Gambling among Student-Athletes who Reported any Gambling Behavior in Past 12 Months

<b>2008 Study</b>	<b>Males</b>	<b>Females</b>
For fun	66.6%	75.1%
Win money	41.5%	26.4%
Excitement	35.1%	22.3%
Competition	28.9%	14.3%
Relieve boredom	16.8%	10.7%
Relaxation	8.3%	3.5%
Be part of my peer group	4.0%	2.1%
Escape school/family situation	2.0%	0.7%
Find new friends	1.2%	0.7%
Escape depression	1.0%	0.6%
See self in more positive light	0.5%	0.2%

### Self-Reported Reasons for Gambling among Male Student-Athletes who Reported Wagering on Sports Frequently in Past 12 Months

<b>2008 Study</b>	<b>Males Wagering on Sports 1/mo+</b>
For fun	60.8%
Win money	62.4%
Excitement	53.6%
Competition	43.9%
Relieve boredom	21.8%
Relaxation	11.7%
Be part of my peer group	4.6%
Escape school/family situation	3.3%
Find new friends	2.2%
Escape depression	1.9%
See self in more positive light	1.2%

## Results – Part 6:

# Money for Gambling



### Summary of Findings on Money Issues

1. Although most frequent sports gamblers reported using personal savings to gamble, a number also reported reliance on credit, family or friends, sale of personal property or other sources.
2. 3.8 percent of male student-athletes who have gambled at all in the past year reported a one-day loss of \$500 or more. 4.9 percent of frequent sports bettors reported a single-day sports wagering loss of \$500 or more.
3. Similar numbers of student-athletes reported carrying credit card balances in 2008 vs. 2004. However, among those carrying a balance, more SAs reported high balances on those cards. Frequent sports gamblers appeared to carry higher debts on those cards than other student-athletes.



**Self-Reported Sources of Gambling Funds among Male Student-Athletes who Reported Wagering on Sports Frequently in Past 12 Months**

<b>2008 Study</b>	<b>Males Wagering on Sports 1/mo+</b>
Personal savings	65.8%
Cash withdrawals from credit/bank cards	38.3%
Family, significant others, friends	25.0%
Household money	23.6%
Sale of personal property	9.7%
Schools loans, grants (non-athletic)	6.4%
Credit line with bookie	6.2%
Illegal activities	6.2%
Athletic scholarship money	4.6%
Bank loans	3.6%
Boosters/alumni, loan sharks, bad checks, credit line with casino	~2% each

**Largest One-Day Gambling Win/Loss among Student-Athletes who Reported any Gambling Behavior in Past 12 Months**

<b>2008 Study</b>	<b>Males</b>		<b>Females</b>	
	Win	Loss	Win	Loss
None	5.8%	6.5%	19.1%	22.4%
Less than \$10	10.7%	22.3%	28.3%	44.0%
\$10 - \$24	16.8%	26.1%	19.9%	19.4%
\$25 - \$99	27.1%	24.6%	19.0%	10.3%
\$100 - \$299	21.0%	13.3%	9.1%	2.7%
\$300 - \$499	8.3%	3.4%	2.5%	0.4%
\$500 - \$999	6.0%	2.0%	1.2%	0.3%
\$1,000 - \$4,999	3.3%	1.2%	0.7%	0.3%
\$5,000 or more	1.1%	0.6%	0.2%	0.1%

**Largest One-Day Sports Betting Win/Loss among Student-Athletes  
who Reported Gambling on Sports in Past 12 Months**

2008 Study	Males		Females	
	Win	Loss	Win	Loss
None	9.8%	10.0%	22.9%	21.6%
Less than \$10	10.9%	25.7%	22.8%	48.1%
\$10 - \$24	23.2%	31.0%	21.9%	20.9%
\$25 - \$99	27.7%	21.0%	21.2%	7.6%
\$100 - \$299	17.5%	7.8%	6.6%	1.3%
\$300 - \$499	4.6%	2.1%	2.6%	0.3%
\$500 - \$999	3.9%	1.7%	1.3%	0.0%
\$1,000 - \$4,999	1.5%	0.4%	0.5%	0.3%
\$5,000 or more	0.9%	0.5%	0.3%	0.0%

**Largest One-Day Sports Betting Win/Loss among Male Student-Athletes who  
Reported Wagering on Sports Frequently in Past 12 Months**

2008 Study	Males Wagering on Sports 1/mo+	
	Win	Loss
None	4.0%	5.6%
Less than \$10	6.0%	15.8%
\$10 - \$24	17.0%	28.2%
\$25 - \$99	27.7%	27.4%
\$100 - \$299	24.2%	13.8%
\$300 - \$499	8.7%	4.2%
\$500 - \$999	7.9%	3.4%
\$1,000 - \$4,999	3.2%	0.9%
\$5,000 or more	1.3%	0.6%

## Credit Card Use/Debt

- More student-athletes reported owning/using credit cards in 2008 (58.2 percent) than in 2004 (39.9 percent).
- Although similar percentages of student-athletes were carrying a monthly credit card balance in 2008 (14.4 percent) vs. 2004 (13.8 percent), the size of these debts was higher in 2008:
  - Eight percent carrying debt of \$500 or more in 2008 vs. 5.6 percent in 2004.
  - The number of student-athletes with \$2,000 or more of credit card debt nearly doubled from 1.4 percent in 2004 to 2.7 percent in 2008.
  - One percent of the 2008 cohort reported having \$5,000 or more of credit card debt.



## Credit Card Use/Debt among Frequent Sports Gamblers

- Although credit card use rates are only slightly higher among student-athletes who wager on sports once per month or more (63.3 percent) compared to other student-athletes (57.9 percent), frequent sports gamblers are more likely to report high credit card debt:
  - 6.3 percent of frequent sports gamblers reported \$1,000 or more of credit card debt;
  - 3.5 percent reported carrying \$2,000 or more debt;
  - 1.7 percent reported a credit card balance of \$5,000 or more.
- As with student-athletes in aggregate, those who wagered frequently on sports were more likely to carry high debt in 2008 vs. 2004 (e.g., 3.5 percent reporting \$2,000 or more debt in 2008 vs. 2.1 percent in 2004).



## Credit Card Debt

<b>Overall</b>	<b>2004 Study</b>	<b>2008 Study</b>
No credit card or pay off monthly	86.2%	85.6%
\$1 - \$499	8.3%	6.4%
\$500 - \$999	2.3%	2.7%
\$1,000 - \$1,999	1.9%	2.6%
\$2,000+	1.4%	2.7%

  

<b>Wager on sports once per month+</b>	<b>2004 Study</b>	<b>2008 Study</b>
No credit card or pay off monthly	82.8%	82.7%
\$1 - \$499	8.7%	8.0%
\$500 - \$999	4.1%	2.9%
\$1,000 - \$1,999	2.3%	2.8%
\$2,000+	2.1%	3.5%

## Results – Part 7: Behavior Related to Contest Fairness

## Notes on Analysis of Low-Baserate Behaviors

- The study authors stress that the items described in this section, which ask student-athletes directly about contest fairness, be judged within a rigorous statistical context due to the difficulty in obtaining statistically reliable results from questions of this nature. In our judgment, factors that could lead to imprecise national estimates appear to push in both directions:
  - Content/phrasing of these questions may invite insincere response;
  - Despite lengths taken to ensure participant anonymity, persons engaging in illegal or eligibility-jeopardizing activity may still perceive an extreme risk in honestly answering certain questions.
- Any population estimate for a question with an extremely low baserate (e.g., only one to two percent of student-athletes endorsing) can easily be incorrect by a large relative margin due to the factors described above or to other research/statistical confounds.
- Determining whether a rate is truly different from zero (or some other meaningful baseline) or whether a change has occurred from 2004 to 2008 should be assessed using appropriate tests of statistical significance.



## Notes on Analysis of Low-Baserate Behaviors

- The following tables show endorsement of behaviors related to contest fairness among student-athletes in Division I men's basketball and football. As a comparison, similar self-report rates are shown for all other males in aggregate (all males in Divisions I, II and III outside of Division I men's basketball and football).
- This baseline group of males highlights that even employing extensive methodologies for identifying insincere responses on these items, a certain percentage of college males will indicate their contests are unfair even when it is clear that is unlikely (e.g., unlikely a Division III swimmer is being asked to change the outcome of a contest).
- Examination of rates for Division I men's basketball and football in comparison to such a baseline group may tell a more meaningful story than evaluating whether the rates are statistically different than zero.
- Effects meeting standard criteria for statistical significance are delineated below each table.



## Summary of Findings on Behaviors Related to Contest Fairness

1. It is difficult, if not impossible, to get a true point-estimate of the percentage of Division I men's basketball and football players involved in behaviors such as providing inside information, betting on their team's own games or altering play for wagering purposes.
2. That said, there are several differences in the 2004 and 2008 numbers that may be seen as intriguing.



## Summary of Findings on Behaviors Related to Contest Fairness

3. There is some indication that student-athletes in Division I men's basketball and football were being contacted more frequently in 2008 by outside sources seeking inside information.
4. At the same time, student-athletes in those sports generally reported less sharing of such information with outside sources in 2008 vs. 2004.
5. Concurrently, Division I men's basketball and football players taken in aggregate reported being asked to influence contest outcomes less often in 2008 than 2004.



## Percentage of Division I Men's Basketball and Football Players Reporting Having Been Contacted by Outside Sources to Share Inside Information

	2004 Study	2008 Study
<b>Division I Men's Basketball</b>	1.2%	3.8%
<b>Division I Football (FBS or FCS)</b>	2.0%	3.5%
Percent of all males outside MBB1 and MFB1 endorsing (all divisions)	0.6%	1.4%

**Statistical Findings:**

1. Percentages for 2008 were significantly higher as judged by standard statistical criteria than the 2004 percentages for each of the three groups (MBB1, MFB1, other males).
2. Percentages for Division I football and men's basketball in 2008 were significantly higher than the baseline rate for all other males.

## Percentage of Division I Men's Basketball and Football Players Claiming to Have Provided Inside Information to Outside Sources

	2004 Study	2008 Study
<b>Division I Men's Basketball</b>	1.2%	0.9%
<b>Division I Football (FBS or FCS)</b>	2.5%	1.1%
Percent of all males outside MBB1 and MFB1 endorsing (all divisions)	0.8%	0.7%

**Statistical Findings:**

1. Percentages for football were significantly lower in 2008 than in 2004 as determined by standard statistical criteria.
2. Although the rate for football was significantly higher than for all other males in 2004, it was not statistically different in 2008 vs. the baseline rate for all other males.
3. The men's basketball percentage was not statistically different than the baseline of other males in either 2004 or 2008.

## Percentage of Division I Men's Basketball and Football Players Reporting Having Been Asked to Influence the Outcome of a Game

	2004 Study	2008 Study
<b>Division I Men's Basketball</b>	2.4%	1.6%
<b>Division I Football (FBS or FCS)</b>	2.3%	1.2%
Percent of all males outside MBB1 and MFB1 endorsing (all divisions)	1.0%	1.1%

### Statistical Findings:

1. Although the percentages for men's basketball and football were significantly higher than the baseline group in 2004, neither was statistically different from the baseline group in 2008.
2. The percentage decrease for football in 2008 was statistically significant by standard criteria. The decrease for men's basketball was not statistically significant.

## Summary of Findings on Behaviors Related to Contest Fairness

6. Although not reaching levels of statistical significance, Division I men's basketball and football players may be reporting fewer instances of betting on their own team in 2008 vs. 2004. In 2008, they did not report betting on their team at a rate higher than a baseline-adjusted zero.
7. Fewer instances of student-athletes betting on other teams at their schools were self-reported in 2008.
8. Student-athletes are less likely to know of a teammate who is a bookie in 2008 vs. 2004.
9. Division I men's basketball and football players reported regularly checking sport point spreads at a much lower rate than Division II or III men's basketball or football SAs.

### Percentage of Division I Men's Basketball and Football Players Reporting Having Bet on Their Own Team

	<b>2004 Study</b>	<b>2008 Study</b>
<b>Division I Men's Basketball</b>	2.7%	2.0%
<b>Division I Football (FBS or FCS)</b>	2.9%	2.2%
Percent of all males outside MBB1 and MFB1 endorsing (all divisions)	1.7%	2.2%

**Statistical Findings:**

1. The percentages reporting having bet on their own team were no different in football and men's basketball in 2008 than those seen among all other males across division (baseline group).
2. The percentage decreases in men's basketball and football from 2004 to 2008 were not statistically significant.

### Percentage of Division I Men's Basketball and Football Players Reporting Having Bet on Another Team at Their School

	<b>2004 Study</b>	<b>2008 Study</b>
<b>Division I Men's Basketball</b>	1.8%	1.4%
<b>Division I Football (FBS or FCS)</b>	4.9%	3.4%
Percent of all males outside MBB1 and MFB1 endorsing (all divisions)	4.1%	2.6%

**Statistical Findings:**

1. Statistically significant decreases in the percentage of football players and males in the baseline group reporting betting on another team at their school were seen in 2008.
2. The 2008 percentages for men's basketball and football were not statistically different than the reported rate in the baseline group.

## Percentage of Division I Men's Basketball and Football Players Reporting Having Known of a Teammate who was a Student Bookie

	2004 Study	2008 Study
Division I Men's Basketball	1.8%	0.6%
Division I Football (FBS or FCS)	1.3%	0.8%
Percent of all males outside MBB1 and MFB1 endorsing (all divisions)	3.0%	1.5%

### Statistical Findings:

1. Although decreases in the rates for men's basketball and football were not statistically significant, the decrease for all males in aggregate was statistically significant.
2. Division I men's basketball and football players taken in aggregate report being significantly less likely to know of a teammate who is a bookie than males in other sport groups.

## Familiarity with Point Spreads

- Division I men's basketball and football players reported being much less likely to regularly check point spreads generally (question not asked specific to their sport) than Division II and III student-athletes in those same sports:
  - Men's Basketball
    - Division I – 7.7 percent
    - Division II – 17.3 percent
    - Division III – 19.4 percent
  - Football
    - Division I – 12.6 percent
    - Division II – 19.0 percent
    - Division III – 23.1 percent
- Similar although less extreme differences seen across division in baseball and women's basketball.

# Results – Part 8:

## Education / Prevention



### Summary of Findings on Education and Prevention

1. Division I student-athletes were more likely to report having received information on NCAA gambling rules than SAs in Divisions II or III.
2. Student-athletes across divisions generally agreed that information/educational interventions originating from the NCAA deter SA gambling.
3. However, SAs who wager on sports frequently believe that educational materials are less impactful than do SAs who are not regularly gambling on sports.
4. Educational efforts may have more impact on wagering behaviors than on beliefs about wagering. Those groups most targeted for education/intervention (e.g., Division I football and men's basketball) are almost as likely to believe that sports wagering is a harmless activity as other student-athletes.
5. Although Division I men's basketball and football players reported the lowest Division I rates of having received information on NCAA gambling rules, decreases in wagering behaviors in these sports seem to contradict the assertion that they have not received such information.



## Summary of Findings on Education and Prevention

5. Student-athletes generally (and more so among frequent sports gamblers) believe that the threat of NCAA penalties is a less effective sports wagering deterrent than education.
6. Student-athletes overwhelmingly agreed that local intervention, particularly involving coaches, teammates and athletics department personnel, would be more effective in discouraging sports wagering than educational materials coming from the NCAA only.
7. At the same time, few student-athletes believe their coaches are aware of whether the members of a team are gambling on sports. They did report that other teammates are much more aware of the presence of gambling issues.



Have you received information on the NCAA rules concerning gambling?

<b>2008 Study</b>	<b>Males</b>	<b>Females</b>
Division I	76.9%	83.4%
Division II	63.0%	67.6%
Division III	62.0%	60.6%



Have you received information on the NCAA rules concerning gambling?

Men's Sports	Div. I	Div. II	Div. III
Baseball	82.5%	61.2%	65.2%
Men's Basketball	69.9%	68.7%	60.8%
Football	71.4%	58.6%	57.9%
Men's Golf	81.3%	66.7%	71.1%
Men's Ice Hockey	76.6%	--	64.0%
Men's Lacrosse	84.4%	79.7%	59.0%
Men's Soccer	77.0%	60.6%	59.9%
Men's Swimming	85.9%	63.2%	59.5%
Men's Tennis	75.8%	60.0%	66.7%
Men's Track / XC	77.1%	67.2%	71.4%
Wrestling	82.9%	79.7%	54.9%
Women's Basketball	82.8%	73.2%	69.7%

Proportion of student-athletes reporting the receipt of information on NCAA rules who agreed that:

“Information and education on the negatives associated with gambling that is provided by my school or the NCAA discourages student-athletes from gambling”

2008 Study	Males	Females
Division I	91.2%	96.2%
Division II	90.9%	95.0%
Division III	89.8%	94.6%

Note: Percentage endorsing “Somewhat agree” or higher (top three scale points on six-point scale).

Proportion of student-athletes reporting the receipt of information on NCAA rules who agreed that:

“Information and education on the negatives associated with gambling that is provided by my school or the NCAA discourages student-athletes from gambling”

2008 Study	Males	Females
Wager on sports once per month or greater	81.6%	--
Wager on sports less than once per month or not at all	91.4%	95.5%

Notes: -- Percentage endorsing “Somewhat agree” or higher (top three scale points on six-point scale);  
 -- Number of females in frequent sports wagering category too small for analysis.

Percentage of Student-Athletes Reporting that the Threat of NCAA penalties Discourages Student-Athletes Generally from Wagering on Sports

2008 Study	Males	Females
Wager on sports once per month or greater	69.4%	--
Wager on sports less than once per month or not at all	83.4%	88.9%

Notes: -- Percentage endorsing “Somewhat agree” or higher (top three scale points on six-point scale);  
 -- Number of females in frequent sports wagering category too small for analysis.

## Percentage of Student-Athletes Reporting that the Threat of NCAA penalties Has Discouraged You from Wagering on Sports

<b>2008 Study</b>	<b>Males</b>	<b>Females</b>
Wager on sports once per month or greater	59.1%	--
Wager on sports less than once per month or not at all	80.0%	85.3%

Notes: -- Percentage endorsing "Somewhat agree" or higher (top three scale points on six-point scale);  
 -- Number of females in frequent sports wagering category too small for analysis.

## Student-Athlete Self-Report of the Most Effective Ways to Influence Student-Athletes not to Wager on Sports

<b>2008 Study Rank</b>	<b>Males – Don't Wager Frequently on Sports</b>	<b>Females – Don't Wager Frequently on Sports</b>	<b>Males Who Wager on Sports Once/Month+</b>
1	Coach (3.98)	Own Values (4.15)	Coach (3.51)
2	Own Values (3.86)	Coach (4.08)	Own Values (3.30)
3	Teammates (3.79)	Teammates (4.02)	Teammates (3.21)
4	Athletics Dept. Presentation (3.65)	Pro Athlete Presentation (3.89)	Athletics Dept. Presentation (3.15)

Notes:

- Number in parentheses represents group average on 0-5 scale (3=somewhat agree, 4=agree).
- Among males who wager on sports 1x/month or more, rank 5=pro athlete presentation (3.09), 6=wouldn't listen (3.07), 7=law enforcement presentation (2.86), 8=former bookie/gambler presentation (2.82), 9=NCAA presentation (2.68), 10=NCAA video (2.50), 11=NCAA website (2.48), 12=NCAA poster (2.47), and 13=NCAA booklet (2.44).

### Self-Reported Personal Beliefs of Student-Athletes about Sports Wagering (Across Division)

2008 Study	Males	Females
Most athletes in college violate NCAA rules regarding sports wagering	54.3%	39.2%
Sports wagering is acceptable so long as you wager on a sport other than the one in which you participate	52.3%	26.8%
No one really gets hurt when athletes violate NCAA rules on sports wagering	44.7%	27.0%
I think sports wagering is a harmless pastime	53.3%	32.5%
People can consistently make a lot of money gambling	51.4%	35.9%

Note: Percentage endorsing "Somewhat agree" or higher (top three scale points on six-point scale).

### Self-Reported Personal Beliefs of Student-Athletes about Sports Wagering (Division I Men's Basketball and Football)

2008 Study	Division I Men's Basketball	Division I Football
Most athletes in college violate NCAA rules regarding sports wagering	47.4%	54.2%
Sports wagering is acceptable so long as you wager on a sport other than the one in which you participate	49.4%	48.6%
No one really gets hurt when athletes violate NCAA rules on sports wagering	42.2%	43.6%
I think sports wagering is a harmless pastime	47.7%	49.5%
People can consistently make a lot of money gambling	58.6%	52.7%

Note: Percentage endorsing "Somewhat agree" or higher (top three scale points on six-point scale).

Perceived belief that coaches are aware if teammates are gambling on sports

2008 Study	Males	Females
Wager on sports once per month or greater	29.1%	--
Wager on sports less than once per month or not at all	38.7%	42.9%

Notes: -- Percentage endorsing "yes" on dichotomous scale;  
 -- Number of females in frequent sports wagering category too small for analysis.

Perceived belief that teammates are aware if a particular teammate is gambling on sports?

2008 Study	Males	Females
Wager on sports once per month or greater	70.4%	--
Wager on sports less than once per month or not at all	73.9%	75.8%

Notes: -- Percentage endorsing "yes" on dichotomous scale;  
 -- Number of females in frequent sports wagering category too small for analysis.

## Research Study – Next Steps

- A written report describing these study results will be published during winter 2010.

