

Transfer, Academic Outcomes and the APR

FARA

November 2007



Contents

- The NCAA Graduation Success Rate (GSR)
- Trends in GSR and federal graduation rates
- Graduation trend comparisons of student-athletes and the student body

Contents

- Transfer frequency in Division I
- Academic impacts of transferring for the student-athlete
- Impact of student-athlete transfer on the APR
- Relationship between the APR's eligibility and retention components and the GSR

NCAA Research Related to Graduation Rates of Division I Student-Athletes 1984-2000

**NCAA Research Staff
November 2007**



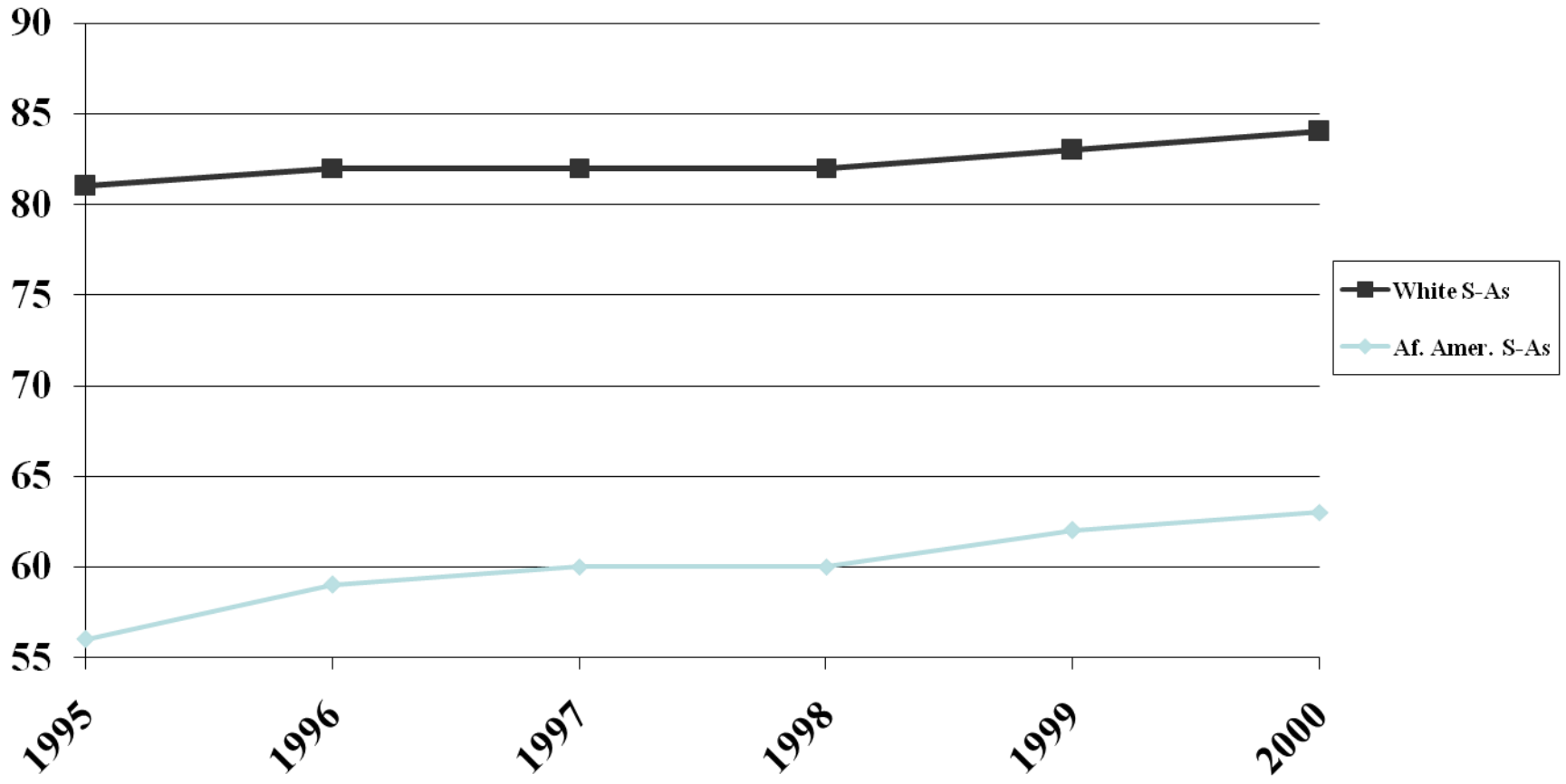
Trends in Graduation Success Rates (GSR)



Comparison of GSR and Federal Graduation Rate Cohorts (1997-2000 Entering Classes)

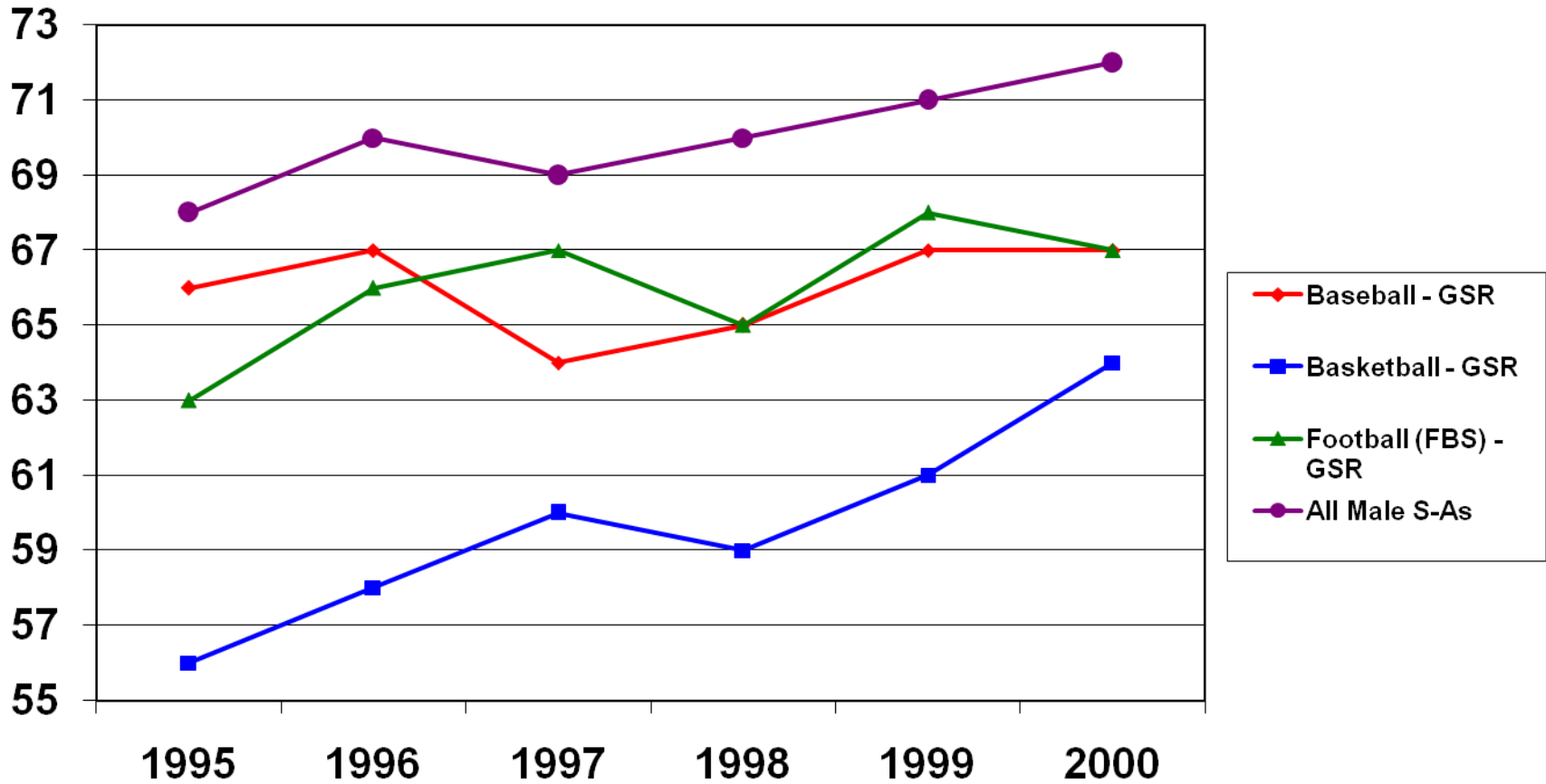
	Federal Rate	GSR
Enrolled (Under Federal Definition)	71,309	71,309
Enrolled as Frosh in January	0	1,717
Two-Year College Transfers	0	9,043
Four-Year College Transfers	0	7,032
Non-Scholarship Athletes (Only at Schools not Offering Aid)	0	8,088
Total Enrolled	71,309	97,189 (+36.3%)
Allowable Exclusions (Death, Military, Church Mission, etc.)	316	392
Left Eligible	0	18,040
Total Denominator	70,993	78,757 (+10.9%)

Graduation Success Rates of All Student-Athletes versus All Students at Division I Institutions by Ethnicity



Six-Year Trends in GSR for Division I Men's Basketball and Baseball, and FBS Football

1995-2000



Comparison of Graduation Success Rates from Entering Classes of 1995* and 2000

Six-Year Trends For Select Groups of Student-Athletes

Student-Athlete Group	1995 GSR	2000 GSR
Overall	74%	78%
White	81%	84%
African-American	56%	63%
White Males	76%	78%
Af.-Amer. Males	51%	58%
White Females	89%	91%
Af.-Amer. Females	71%	75%

*1995 was the last year of the former initial-eligibility rules (known as Prop. 48). It was also the first year in which GSR data were collected.

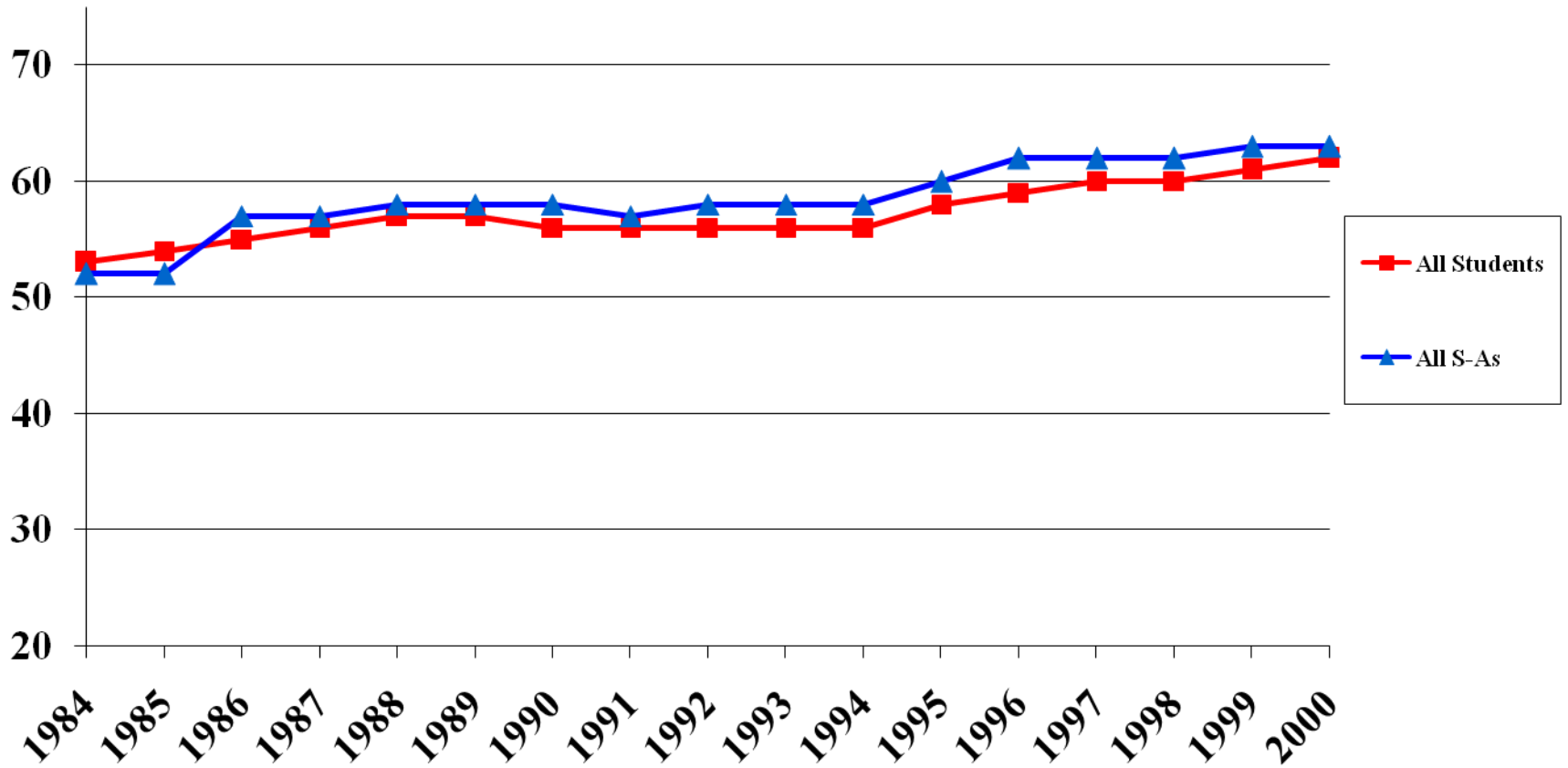
Notes on Total Number of Graduates in Division I (Using GSR Methodology)

- NCAA began collecting GSR data with the entering freshman class of 1995. Latest entering class for which data are available is 2000.
- In the 1995 class, there were 13,411 reported graduates. In 2000, that number was 16,128. This is a difference of approximately 2,700 student-athlete graduates from Division I institutions in that six-year period.
- In analyzing this difference, it appears that approximately 850 of the new graduates are due to increases in the actual graduation rate, and another 1,870 are due to increases in the student-athlete cohort within Division I (due to increases in membership and numbers of athletes on individual campuses).
- When looked at on the institutional level – the average institution reported approximately 42.4 graduates from the 1995 cohort and 50.7 graduates from the 2000 cohort – an increase of over eight graduates per Division I institution.
- In two sports of interest, the numbers in the cohorts have actually decreased, while the number of graduates has increased. Specifically, in men's basketball there were 42 fewer students in the cohort in 2000 but 55 more graduates. Similarly, men's football teams reported 132 fewer students in 2000 but had 35 more graduates.

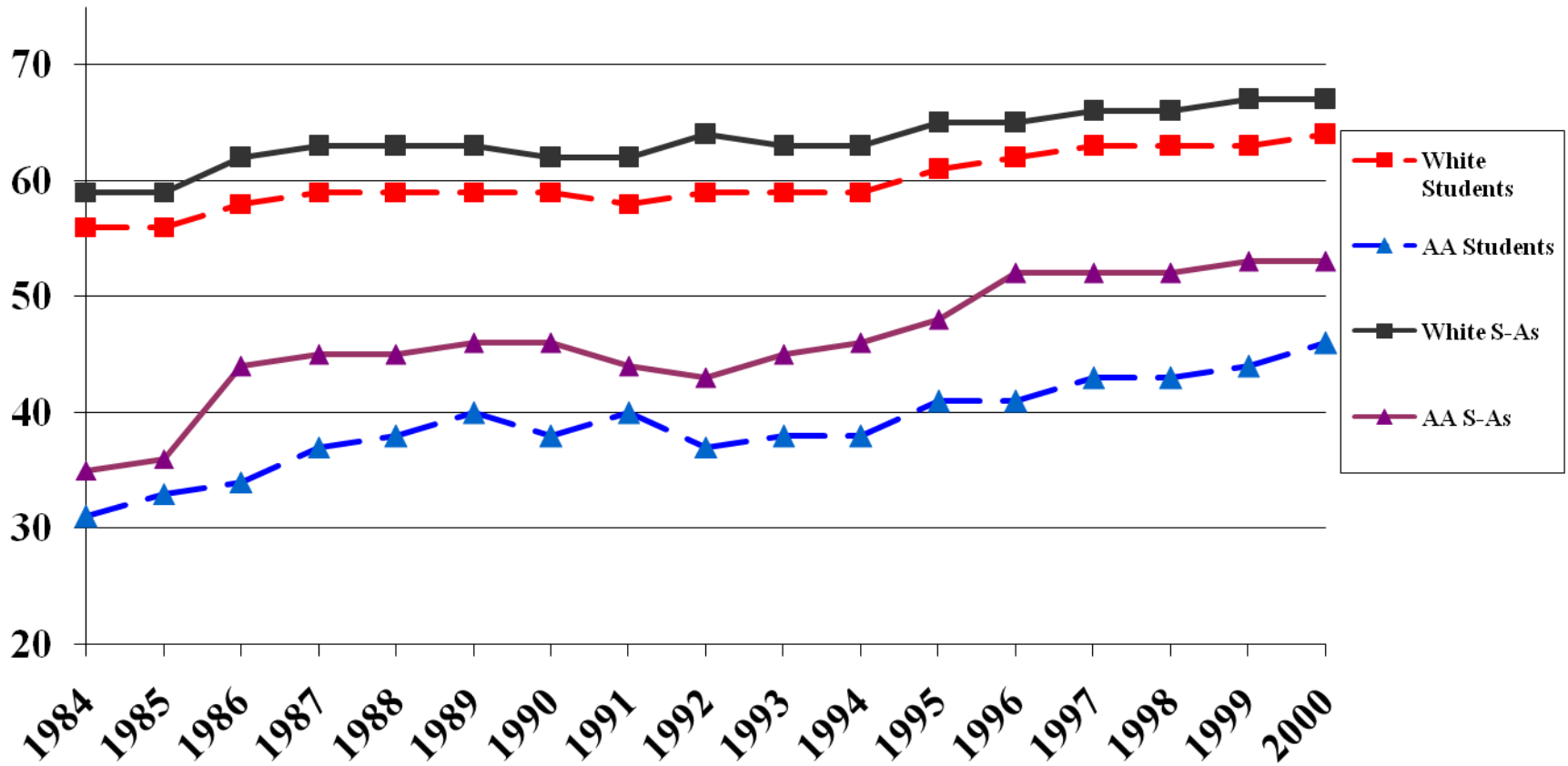
Trends in Federal Graduation Rates



Federal Graduation Rates of All Student-Athletes versus All Students at Division I Institutions



Federal Graduation Rates of All Student-Athletes versus All Students at Division I Institutions by Ethnicity



Comparison of Federal Graduation Rates Between Student-Athletes and Student Body

For Select Groups in 2000 Entering Class

Student-Athlete Group	Student-Athlete Graduation Rate	Student Body Graduation Rate
Overall	63%	62%
White	67%	64%
African-American	53%	46%
White Males	59%	62%
Af.-Amer. Males	49%	39%
White Females	74%	66%
Af.-Amer. Females	63%	50%

Summary of Federal Graduation Rate Differences Between Student-Athletes and Student Body 2000 Cohort

- Overall, student-athletes in the entering class of 2000 at Division I institutions graduated at a slightly higher rate than the general student body (63 percent versus 62 percent).
- When looked at by subgroups based on gender and ethnicity, there is only one major category in which student-athletes trail their counterparts in the student body – white males. In all other major categories the student-athletes outpace the corresponding group within the general student population. Of note:
 - African-American male student-athletes graduate at a ten percentage point higher rate than African-American males in the student body (49 percent to 39 percent).
 - African-American female student-athletes outpace their student body counterparts by 13 percentage points (63 percent to 50 percent).
- In the sports of men's basketball and FBS football, the overall rates lag behind the rates of males in the general student body. However, the rates for the African-Americans in those sports are higher than African-American males in the student body.

Summary of Federal Graduation Rate Trends

- There were few notable differences in federal graduation rate between the 1999 and 2000 cohorts. Some sport groups moved up or down by two or three percent, but none of these changes was outside the statistical margin of error.
- Between 1995 and 2000, there were some changes of note:
 - The overall rate increased from 60 percent to 63 percent.
 - The rate for African-American male student-athletes increased five percentage points over that time period, and the African-American females increased by three percentage points.
 - In men's basketball, the overall rate increased by three percentage points. The federal rate for white men's basketball student-athletes dropped by one point over that period, while the rate for African-Americans increased by eight percentage points.
 - Football at the FBS level saw similar changes to men's basketball. The overall rate increased by two percent. The rate for white student-athletes dropped by a point, but the rate for African-Americans in that sport increased by six percentage points.

Demographic Issues in Graduation Rates Data



Comparison of Gender/Ethnicity Breakdown of Federal Student-Athlete Cohort Versus Student Body Cohort 2000-01 Entering Classes

Student-Athlete Demographics				Student Body Demographics			
Ethnicity	Male Percent	Female Percent	Total Percent	Ethnicity	Male Percent	Female Percent	Total Percent
African-American	15.2%	6.8%	22.0%	African-American	2.7%	5.3%	8.0%
American Indian	0.3%	0.2%	0.5%	American Indian	0.2%	0.3%	0.5%
Asian/ Pac. Isl.	0.8%	0.9%	1.7%	Asian/ Pac. Isl.	3.7%	4.5%	8.2%
Hispanic	1.8%	1.2%	3.0%	Hispanic	2.1%	3.3%	5.4%
White	30.6%	33.0%	63.6%	White	32.0%	40.4%	72.4%
Non-Res. Alien	2.9%	3.2%	6.1%	Non-Res. Alien	1.1%	0.8%	1.9%
Unknown	1.7%	1.6%	3.3%	Unknown	1.5%	2.0%	3.5%
Total	53.3%	46.9%	100%	Total	43.3%	56.6%	100%

Comparison of Federal Graduation Rates for Gender/Ethnic Groups for the Student-Athlete Cohort Versus Student Body Cohort (2000-01 Class)

Student-Athlete Graduation Rates			
Ethnicity	Males	Females	Total
African-American	48%	63%	53%
American Indian	29%	61%	43%
Asian/Pac. Isl.	51%	75%	65%
Hispanic	50%	66%	56%
White	59%	74%	67%
Non-Res. Alien	59%	62%	60%
Unknown	49%	64%	57%
Total	55%	71%	63%

Student Body Graduation Rates			
Ethnicity	Male Percent	Female Percent	Total Percent
African-American	39%	50%	46%
American Indian	44%	51%	48%
Asian/Pac. Isl.	66%	73%	70%
Hispanic	49%	58%	54%
White	62%	67%	64%
Non-Res. Alien	62%	68%	64%
Unknown	59%	66%	63%
Total	59%	64%	62%

Federal Graduation Rate Differences Between Student-Athletes and Student Body

- Differences in the demographic make-up of the cohorts and the graduation rates of the various gender/ethnicity subgroups can make a difference in the overall aggregated graduation rates. The sub-group graduation rates for student-athletes can be weighted by the demographic proportions in the student body population to estimate what the overall graduation rates would be, given the same population demographics. Such a weighting provides the adjusted rates in the table below:

	Student Body Rate	Unadjusted Student-Athlete Rate	Demographic -Adjusted Student-Athlete Rate
Federal Rate	61.8%	62.5%	65.4%
GSR	N/A	78.2%	82.2%

- Thus, given the same demographic characteristics, the student-athlete graduation rate would be approximately four percent higher than the rate for the general student body.

Division I Student-Athlete Transfer Frequency



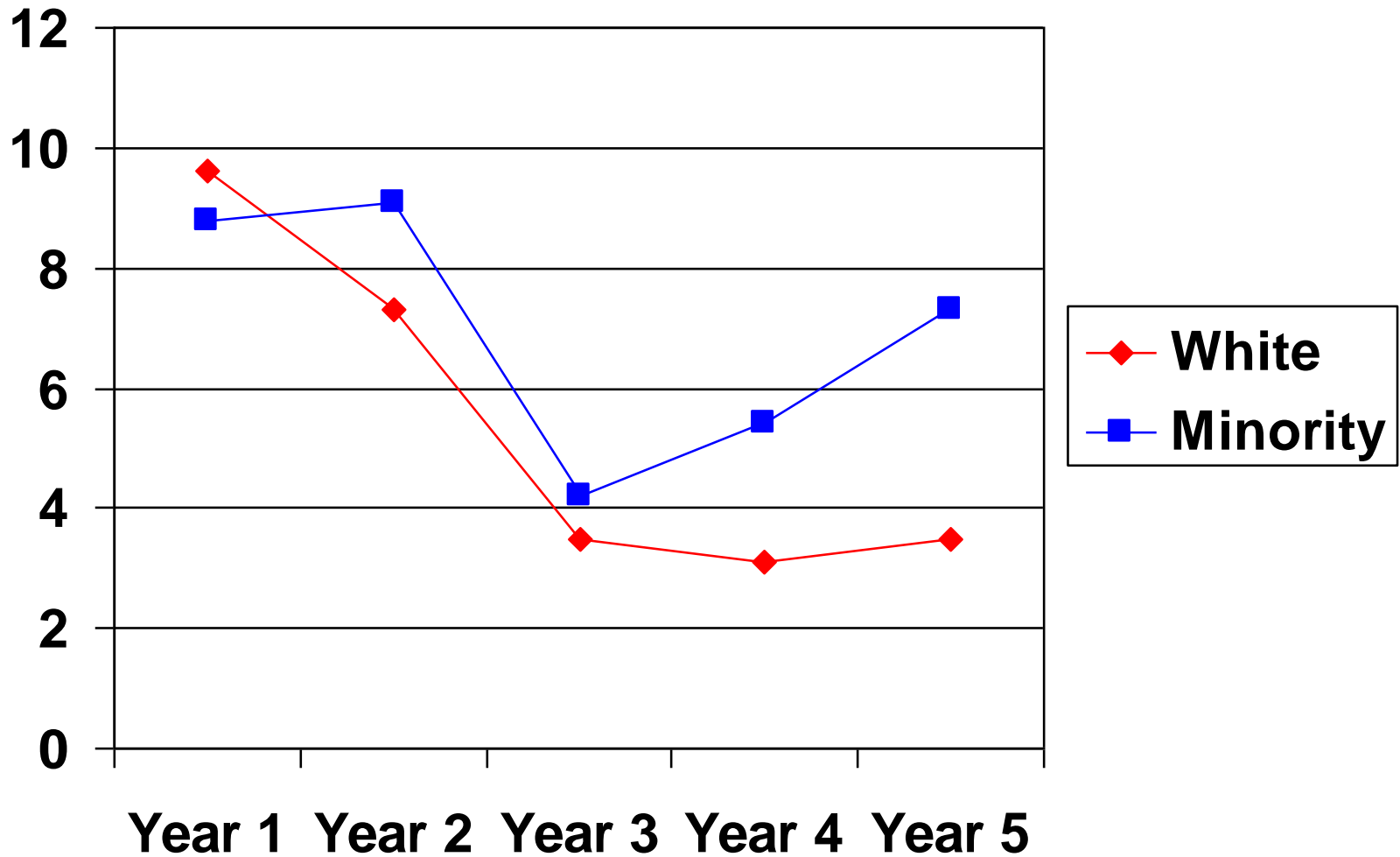
Transfer Frequency into Division I

- Approximately 13% of the student-athletes in Division I transferred into their current school. Just under half of these transfers (46%) entered Division I from a 2-year college.
- More than one-quarter of current baseball and men's basketball players transferred into Division I. Two-thirds of the transfers in those sports arrived from a 2-year college.
- In baseball, football, men's basketball and women's basketball a majority of transfers (57%-67% in those four sports) are 2-4 transfers. Across all other sports, less than 30% of transfers are 2-4 transfers.
- Division I schools vary significantly in their use of transfer student-athletes. The range in the proportion of transfers-in among all student-athletes is 0% to 43%. Nearly one-quarter of Division I institutions have student-athlete populations that are comprised of at least 10% 2-year transfers (range of 0% to 27%).

Transfers Out of Division I

- Through the Division I APR data collection we know whether a student-athlete was a transfer-in from a 2-year or 4-year school. However, Division I schools are not asked to track students who are not retained and may have transferred out. For our analyses of transfer-out we make the assumption that all student-athletes who leave their Division I school in good academic standing are likely transfers. Student-athletes leaving in poor academic standing are assumed not to have transferred.
- Whereas about 13% of Division I student-athletes transferred into their schools, only 6% of student-athletes are leaving while in good academic standing each year.
- An annual transfer rate of 6.4% corresponds with a 23% 4-year transfer rate for an entering cohort of student-athletes. This is similar to the Division I transfer rate (26%) obtained in the SCORE study of former Division I student-athletes.

Percentage of Eligible Student-Athletes Not Retained as a Function of Year in School (2005-06 APR Cohort – SAs Entered Current School as Freshmen)



Academic Outcomes of Transfers into Division I

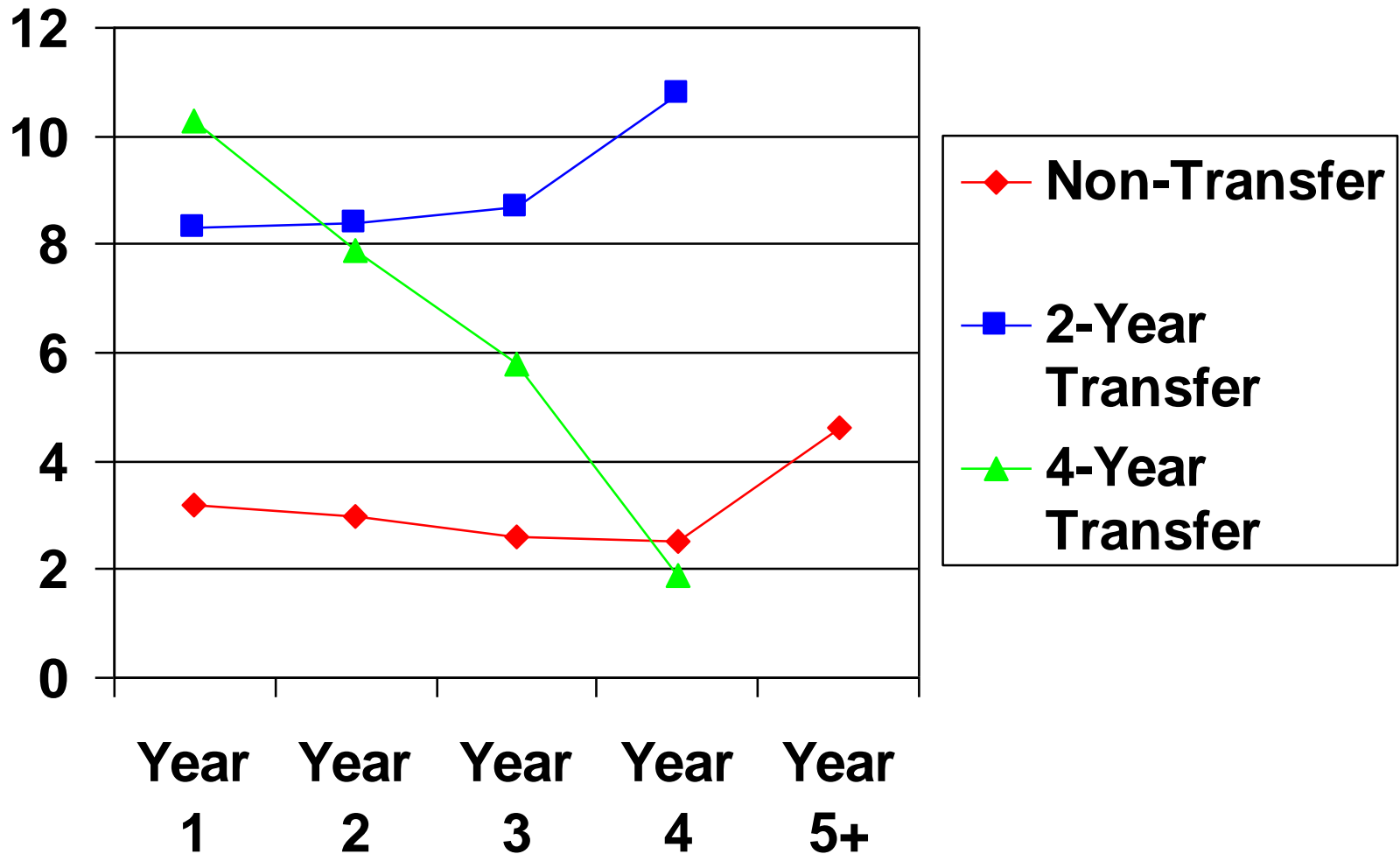


Trends in Number of 0/2s by Transfer Status

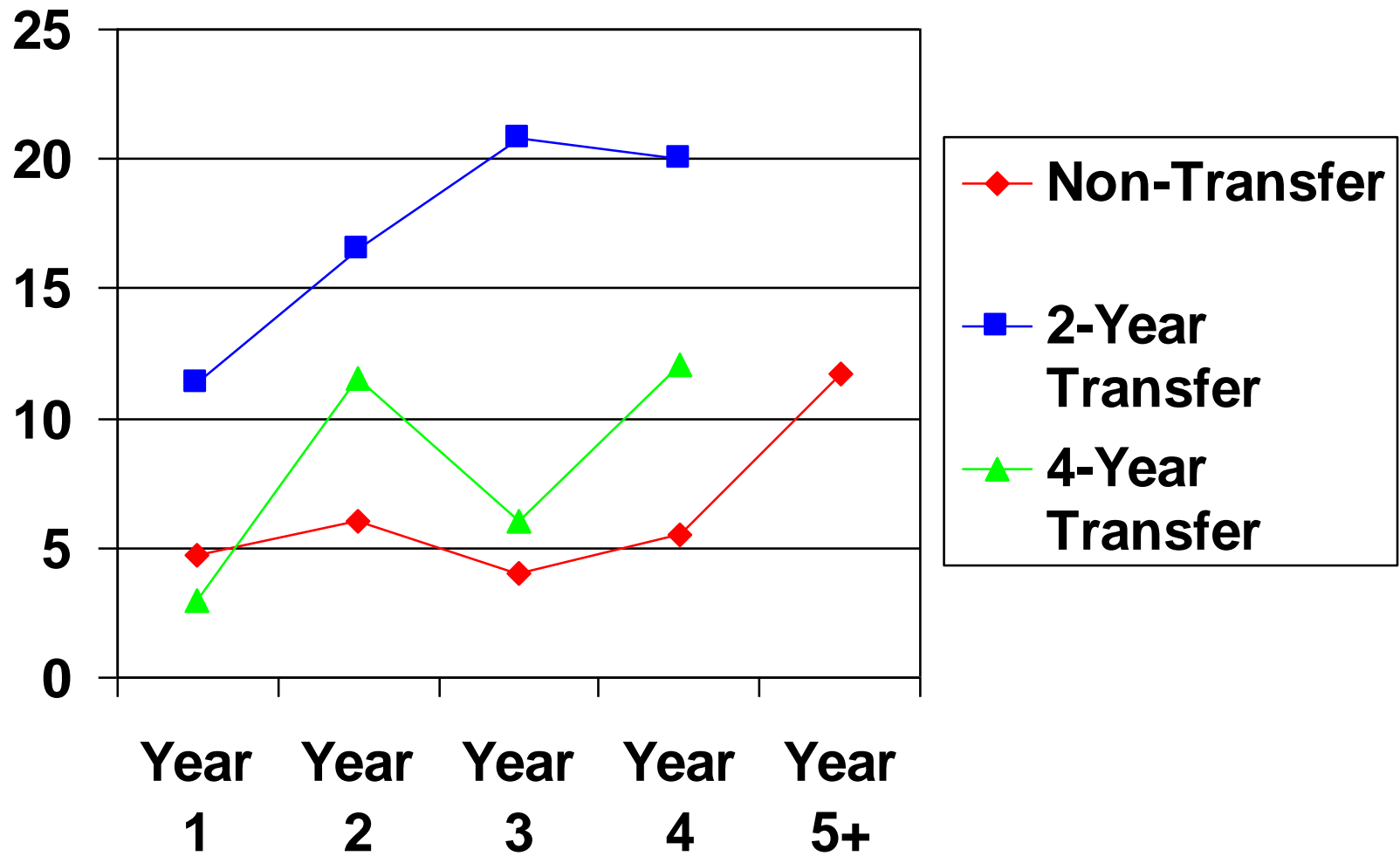
	2003-04	2004-05	2005-06
Non-Transfer	2,878 (3.1%)	2,942 (3.1%)	2,758 (2.8%)
2-Year Transfer	664 (10.1%)	603 (9.3%)	582 (9.3%)
4-Year Transfer	387 (5.0%)	383 (4.9%)	397 (5.1%)

% = Percentage of individuals in transfer status grouping who were 0/2s in that academic year.

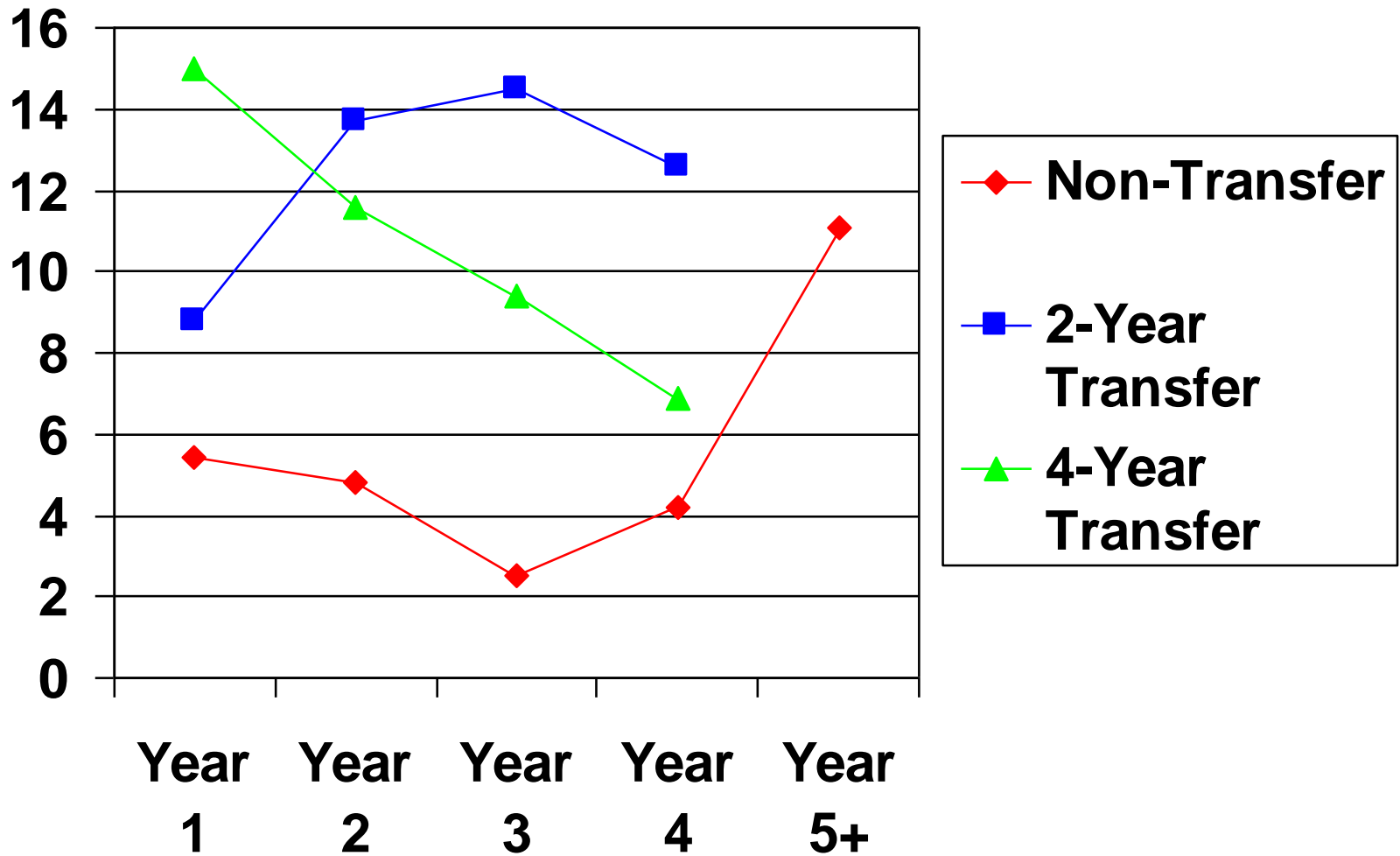
Percentage of 0/2s by Year in School as a Function of Transfer Status for Baseball (2005-06)



Percentage of 0/2s by Year in School as a Function of Transfer Status for Men's Basketball (2005-06)



Percentage of 0/2s by Year in School as a Function of Transfer Status for Football (2005-06)



Percentage of 0/2 Departures Among All Student-Athletes Exhausting their Athletics Eligibility in 2005-06

SPORT	Overall	Non-Transfers Only	2-Year Transfers	4-Year Transfers
Baseball	6.4%	3.6%	9.2%	10.4%
Men's Basketball	11.9%	8.2%	18.7%	12.6%
Football	11.9%	9.8%	19.3%	19.6%
Men's Ice Hockey	6.0%	6.7%	0.0%	0.0%
Men's Soccer	5.3%	4.1%	8.6%	8.5%
Men's Track (Outdoor)	2.7%	2.2%	4.3%	4.0%
Wrestling	6.0%	5.0%	15.0%	7.1%
Women's Basketball	3.5%	2.3%	8.4%	4.4%

Number of 0-for-2s in a Sport as a Function of Academic and Demographic Characteristics

- Statistical analysis shows that the following variables are independently predictive of eventual 0/2 status:
 - Lower HS grades
 - Lower HS test score
 - Having transferred from either a 2-year or a 4-year school.
 - Being male
 - Being from a racial / ethnic minority group
- This analysis indicates that even after we control for academic characteristics and a limited set of demographic variables, transfers into a school are more likely to leave the new school as 0/2s. This effect is similar for 2-4 and 4-4 transfers.
- The analysis shows that the high number of 0/2s in men's basketball are expected given the academic backgrounds, transfer frequency and demographics of the student-athletes in the sport. These 0/2 rates are slightly higher in baseball and football than expected after controlling for these factors.

Summary on Academic Success of Transfers into Division I

- In general, 2-year transfers perform less well academically in college than either non-transfers or 4-year transfers.
- However, it is difficult to gauge the effect of the act of transferring on academic success as non-transfers, 2-year transfers, and 4-year transfers present different academic qualifications in aggregate.
- The statistical model presented controls for these group differences in academic preparation and shows that coming in as a transfer student is related to an increased risk of failing out of school as an APR 0/2. The effect was similar for 2-year and 4-year transfers.

Research on the Academic Effects of Transferring among Division I Student-Athletes

Dr. Jack McArdle
Univ. of Southern California



Distribution of Time to Degree for Student-Athletes Transferring vs. Others

Years to BA/BS	SA Overall (100%)	SA who stayed in one school (73.7%)	SA who transferred (26.3%)
1-3 years	1.6	1.5	1.8
4 years	58.6	64.8	38.8*
5 years	32.6	29.1	43.6*
6 years	4.7	2.8	10.7*
7 years	1.8	1.1	4.2*
Overall Graduation Rate	88.2%	91.3%	79.7%

Notes: Weighted number of Student-Athletes ~ 3,952 from SCORE-2006 Survey, asterisk indicated comparison significant at $\alpha=.05$

Graduation Rates Based on First Year GPA for Student-Athletes Transfers vs. Non-Transfers

First Year GPA	SA Overall (100%)	SA who stayed in one school (73.7%)	SA who transferred (26.3%)	Difference (Non-Transfers – Transfers)
≤ 1.60	54.8%	65.8%	43.7%	22.1%
≤ 1.80	67.6%	71.2%	61.1%	10.1%
≤ 2.00	78.0%	83.1%	63.6%	19.5%
≤ 2.20	77.3%	82.4%	65.4%	17.0%
≤ 2.40	87.3%	88.9%	82.0%	6.9%
≤ 2.60	90.7%	92.9%	83.7%	9.2%
≤ 2.80	94.1%	95.5%	90.1%	5.4%
≤ 3.00	93.6%	94.2%	91.0%	3.2%
> 3.00	95.6%	96.1%	93.7%	2.4%

Notes: Weighted number of Student-Athletes ~ 3,952 from SCORE-2006 Survey.

Impact of Student-Athlete Transfer on the APR



Retention Losses vs. 0/2 Losses among Squads Below APR Benchmarks

- All retention point losses were examined among squads with a 3-year APR below the 925 benchmark. 51% of all retention point losses over the 3-year period for those 800+ squads were the result of students leaving as 0/2s.
- R-point losses that were due to 0/2 losses totaled 51% among men's basketball teams that were below the 925 cut and 60% among football teams below that benchmark.
- Among squads with 3-year APR at or above the 925 benchmark, only 33% of retention losses resulted from student-athletes leaving as 0/2s.

Summary of Impacts of Current APR and Four Alternatives

Model	Impacts -- All Teams (N=6,110)		Projected GSR (Fed Rate)	
	Below 925	Below 900	925	900
Current 3-Year APR	815 (13.3%)	320 (5.2%)	59% (40%)	45% (29%)
Alt. Model 1: APR with E = 1.8*E	823 (13.5%)	370 (6.1%)	59% (40%)	47% (29%)
Alt. Model 2: E Only Model	916 (15.0%)	470 (7.7%)	60% (42%)	50% (33%)
Alt. Model 3: All R loss adjusted	390 (6.4%)	156 (2.6%)	48% (30%)	38% (19%)
Alt. Model 4: Below Cut on E,R	450 (7.4%)	166 (2.7%)		

Model	Impacts -- Basketball Teams		Impacts -- Football Teams	
	Below 925	Below 900	Below 925	Below 900
Current 3-Year APR	142 (43.6%)	72 (22.1%)	93 (39.6%)	35 (14.9%)
Alt. Model 1: APR with E = 1.8*E	137 (42.0%)	75 (23.0%)	97 (41.3%)	43 (18.3%)
Alt. Model 2: E Only Model	120 (36.8%)	73 (22.4%)	116 (49.4%)	57 (24.3%)
Alt. Model 3: All R loss adjusted	75 (23.0%)	27 (8.3%)	52 (22.1%)	23 (9.8%)
Alt. Model 4: Below Cut on E,R	100 (30.7%)	53 (16.3%)	66 (28.1%)	15 (6.4%)

Definitions:

Current 3-Year APR: Raw 3-Year APR (no squad size adjustment)

Alt. Model 1: Optimized combination of E,R based on predictive modeling of GSR (weights E * 1.8)

Alt. Model 2: Teams judged solely on eligibility rate

Alt. Model 3: Current APR formula but with all R losses not associated with 0/2s adjusted

Alt. Model 4: Squads considered to be below benchmark if both eligibility and retention rates fall below the listed cut score

APR Predictions of Graduation Rates -- Pilot

- Previous analyses had indicated that retention and eligibility were both statistically significant predictors of a squad's federal graduation rate. Retention was a stronger predictor, but eligibility added to the accuracy of the predictions.
- However, those predictions were based solely on pilot APR data, and were limited to predicting the federal graduation rate because Graduation Success Rate (GSR) data had yet to be collected.
- Current data allow us to use the first three years of APR data to predict both federal graduation rates and GSRs for all Division I teams.

Prediction of GSR from Eligibility and Retention -- Current

- Current analyses used three-year APR data and the most recent four-cohort federal graduation rate and GSR data. Initial results:
 - When predicting GSR, both eligibility and retention are statistically significant contributors to the prediction. Eligibility is a stronger predictor, but retention does increase the statistical accuracy of the prediction.
 - When predicting federal graduation rate, the findings are the same as they were in the pilot study. Specifically, both elements are significant but retention is a stronger individual predictor.
 - The APR and its components (eligibility and retention) appear to provide a slightly more accurate prediction of the GSR than they do of the federal graduation rate for these athletics teams.
 - Raw eligibility and retention rates taken together actually provide a slightly better prediction of GSR and the federal graduation rate than does APR. This is likely due to the inclusion of graduation bonus points within the APR formula.

Correlation between APR and Models Differentially Accounting for Transfers

APR Model	GSR	Federal Rate
APR (current)	.478	.433
APR (transfer with >3.0 cumulative GPA excused)	.482	.408
APR (transfer with >2.8 cumulative GPA excused)	.483	.403
APR (transfer with >2.6 cumulative GPA excused)	.476	.392
APR (transfer with >2.4 cumulative GPA excused)	.466	.380
APR (all transfer excused)	.456	.367

Executive Summary – Key Research Points

1. In aggregate, the frequency of transfer into Division I schools is much greater than the frequency of transfer out.
2. The academic performance of transfers into a school has a larger impact on APR than the retention point loss of transfers out.
3. Two recent studies of student-athletes support the conclusion that in aggregate transferring leads to:
 - a) a lower probability of student-athlete graduation
 - b) longer time to degree among those who graduate
 - c) a higher likelihood of dropout at the destination college.

Given these effects of transferring on the typical student-athlete, this research supports the loss of an APR retention point for a transferring student.

Executive Summary – Key Research Points

4. The negative impacts of transferring appear to be much lower among academically high-performing student-athletes. This finding provides support for treating some transfers differently than others in APR calculations.
5. Alternative APR models that excuse retention losses among these high-performing transfers are being examined.
6. Statistical analyses indicate that both eligibility and retention are important predictors of graduation success rate (GSR). These analyses do not show any statistical benefit of removing or substantially discounting retention from the APR formula. Giving credit to some transfers as a function of their likelihood to complete a bachelor's degree at the next college can be supported statistically and would not appear to negatively impact the APR metric.