

# **Academic Performance & Athletic Retention within NCAA Division III *Does Institutional Selectivity Matter?***

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NORTHWESTERN  
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# Introduction to the College Sports Project

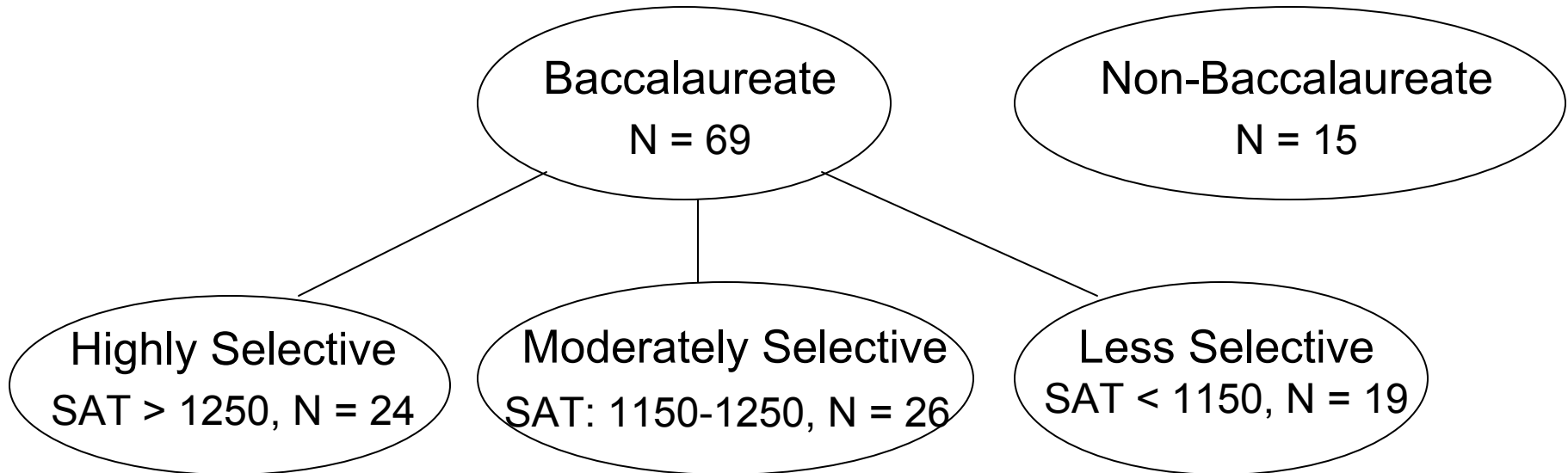
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- The College Sports Project (CSP) is committed to strengthening the alignment between intercollegiate athletics and educational values.
  - Representativeness initiative: athletes representative of student body
  - Integration initiative: bringing together campus personnel around education and athletics
  - Project started in 2005, currently in fourth year of data collection
  - Five-year longitudinal study of > 80 Division III institutions out of a total of 447 Division III institutions
  - Quantitative data submitted annually by institutions

# Institutions and Cohorts

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- Data from 84 institutions



- Selectivity levels are based on average SAT score of incoming class
- Year 1 and Year 2 information on two cohorts:
  - Entering class of 2005-2006 (N = 41,356)
  - Entering class of 2006-2007 (N = 42,372)
- N = 83,728 students

# Demographics of Combined Cohorts

- N = 83,728
- Gender: 43% male, 57% female
  - 84 institutions include 6 Women's Colleges and 2 Men's Colleges
- Race/Ethnicity: 6% Asian, 4% Black, 5% Hispanic, 71% White, 3% Other, 11% Unknown (includes international students)
- Citizenship: 95% US citizen or permanent resident
- Athletic participation categories
  - *Non-Athlete*: never played sport, not recruited for a sport
  - *Recruited Athlete*: was recruited for a sport (may or may not have played)
  - *Walk-on Athlete*: not recruited but played a sport

Athletic Participation	Percentage of Students
Male Non-Athlete	27%
Male Recruited Athlete	11%
Male Walk-On Athlete	5%
Female Non-Athlete	45%
Female Recruited Athlete	8%
Female Walk-On Athlete	5%

# Examining Group Differences

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- Comparison Measures
  - Institutional Selectivity
  - Race/Ethnicity
  - Type of Sport
- Outcome Measures
  - Cumulative college GPA at the end of Year 2
    - Are there differences in average GPAs between athletes and non-athletes?
  - Underperformance
    - What part of GPA differences between athletes and non-athletes cannot be predicted by the explanatory variables (e.g. demographics, high school performance, high school characteristics)?
  - Athletic Retention
    - Did students who played sport in Year 1 return to play in Year 2? (Focus on recruited athletes.)

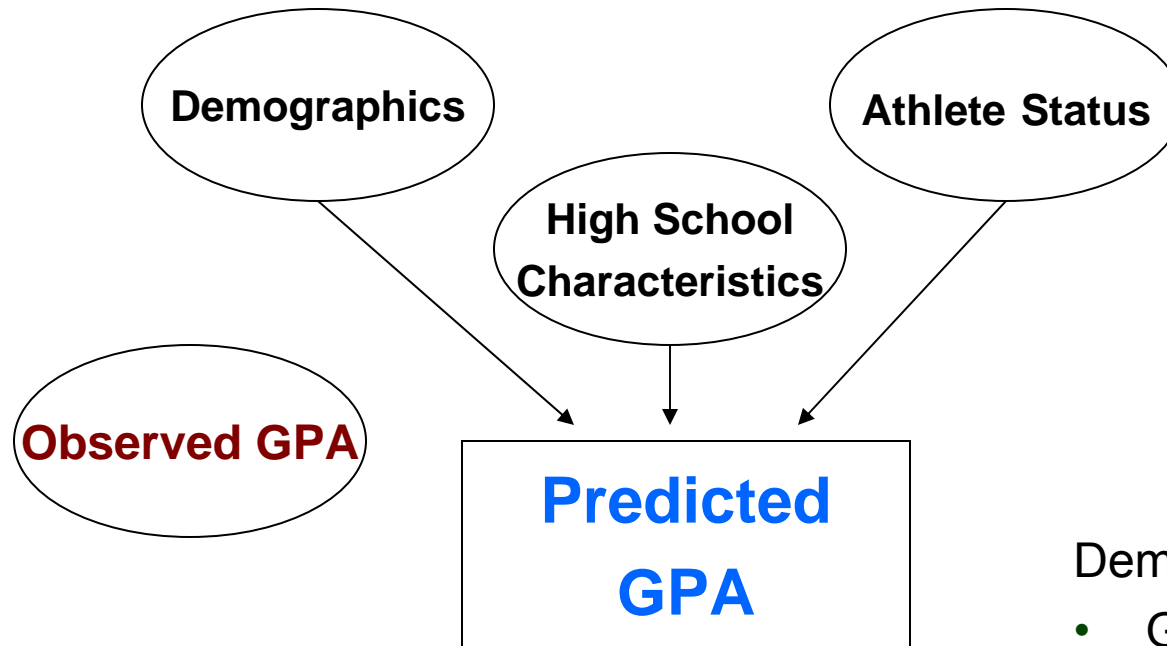
# Main Findings

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- Institutional selectivity highlights diversity of athletic / academic experiences within Division III.
- Being a recruited male or female athlete is related to underperformance at most, but not all Division III institutions in the CSP. The exceptions are often among the less selective institutions.
- At less selective institutions, there is smaller underperformance, but also lower year 2 retention in the sport for male recruited athletes. The opposite is true at highly selective institutions.

# Understanding Underperformance

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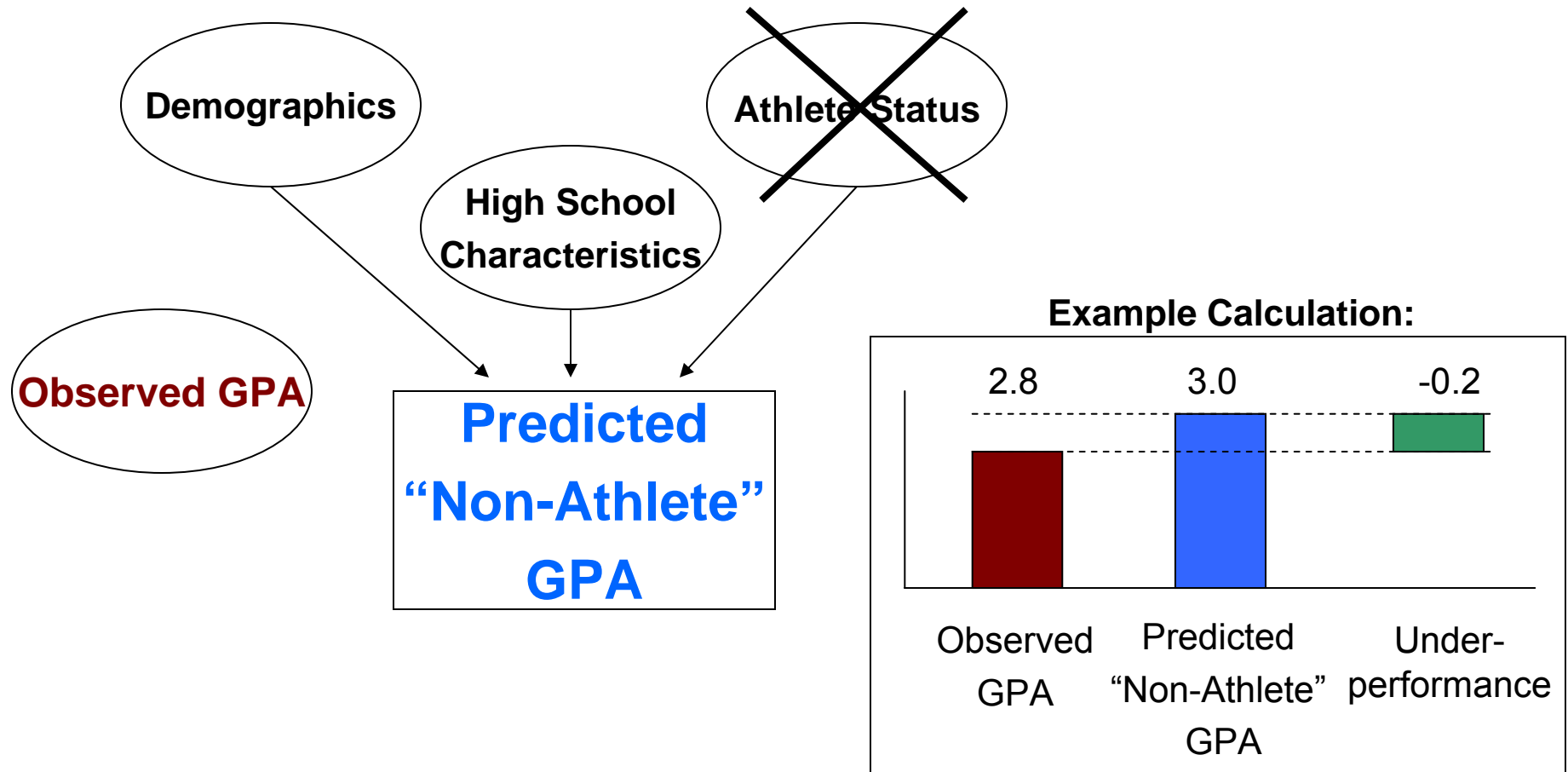
## Demographics:

- Gender
- race/ethnicity
- U.S. citizen

## High School Characteristics:

- Student's SAT score
- High School GPA Rank
- Average SAT of High School

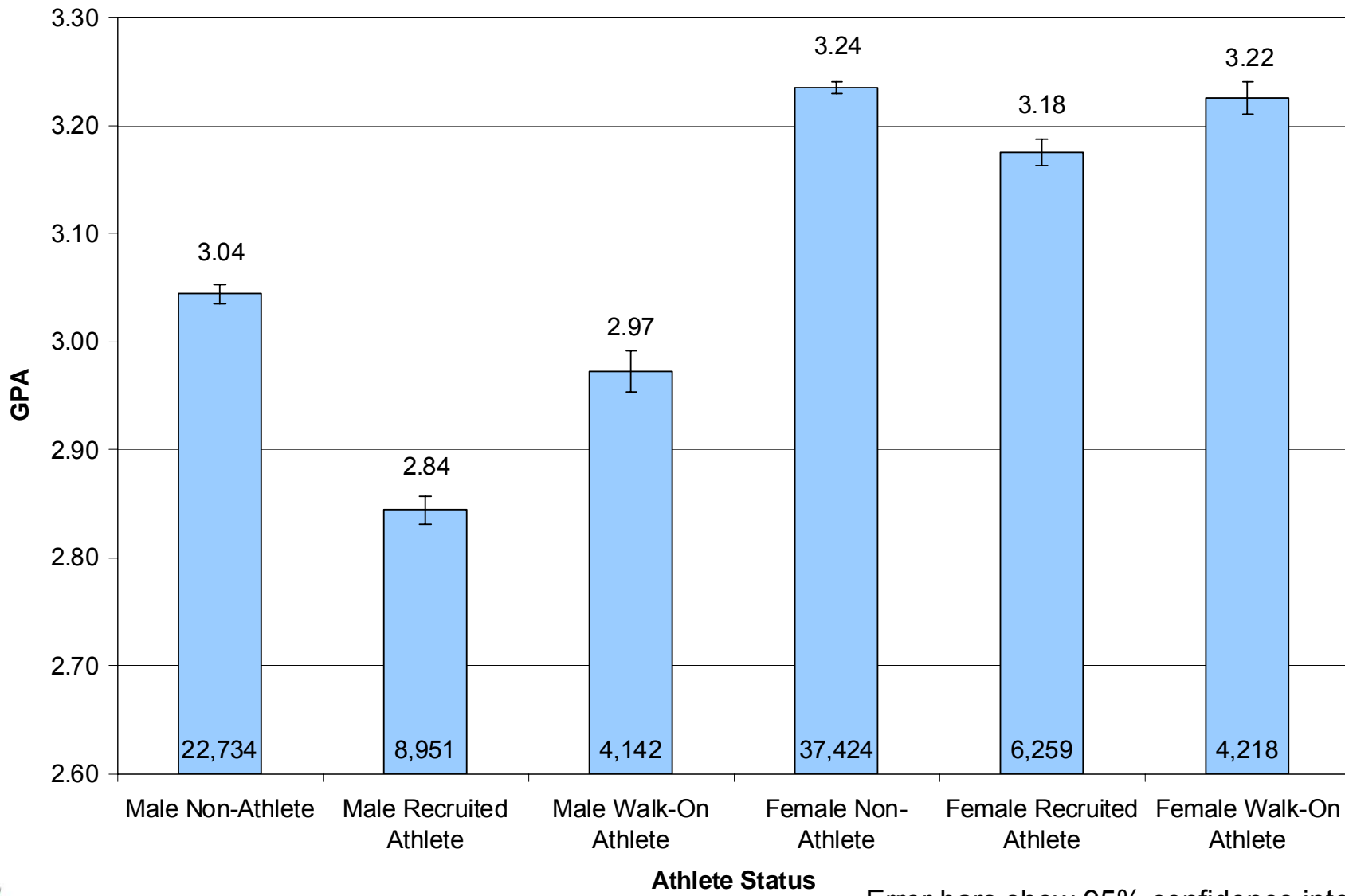
# Understanding Underperformance



$$\text{Observed GPA} - \text{"Non-Athlete GPA"} = \text{Underperformance}$$



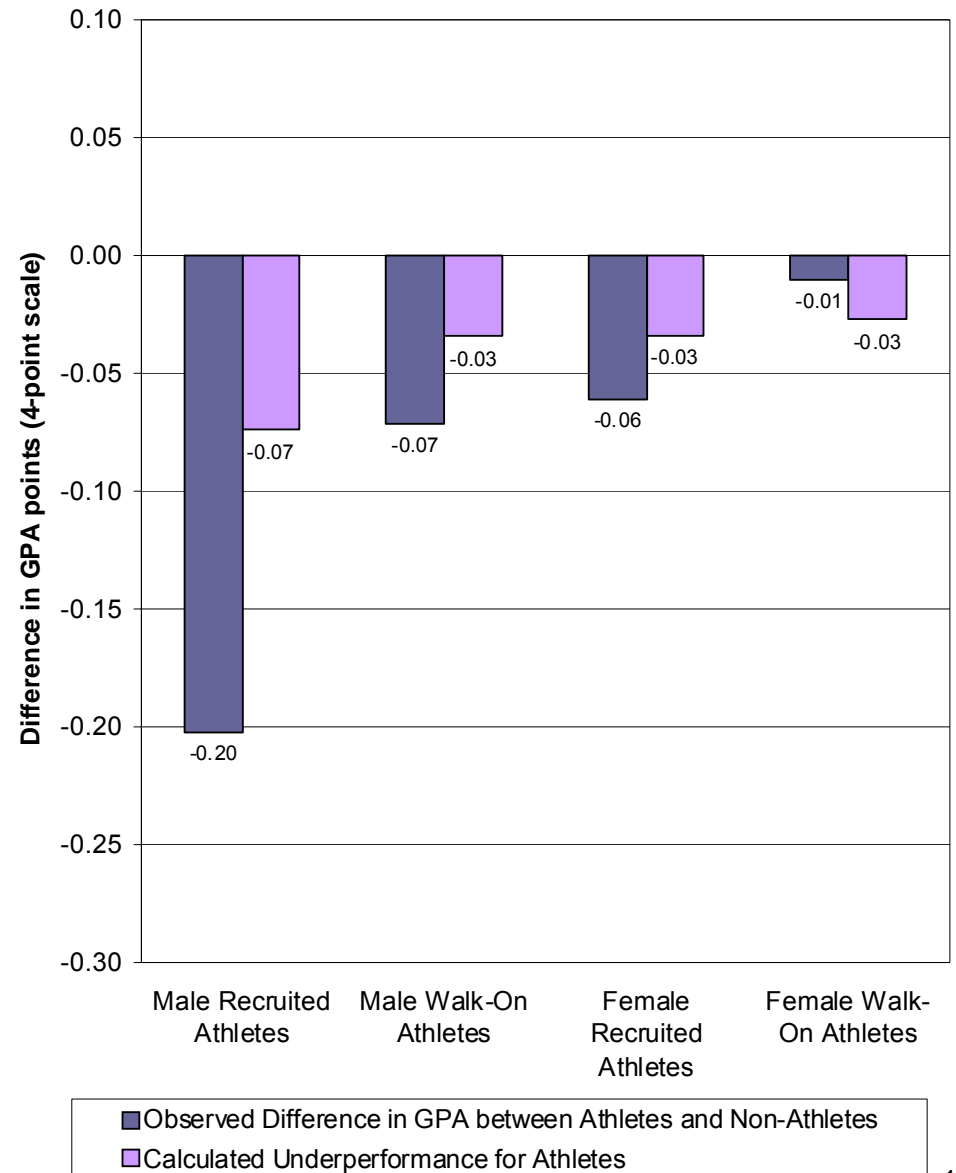
# GPA by Athlete Status



Error bars show 95% confidence interval.  
Numbers at base show sample size.

# GPA Difference and Underperformance

- Each group is compared to non-athletes of the same gender
- For male recruited athletes, about two thirds of the GPA difference can be explained by background variables, rest is labeled “underperformance”
- For male walk-on athletes and female recruited athletes, about half of the GPA difference can be explained by background variables
- Female walk-on athletes have larger underperformance than GPA difference
  - they are not performing as well as expected even though their GPAs are close to non-athletes



# Institutional Selectivity

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**How do performance measures of athletes differ by institutional selectivity?**

# Sample Sizes

## Combined 2005-2006 and 2006-2007 Cohorts

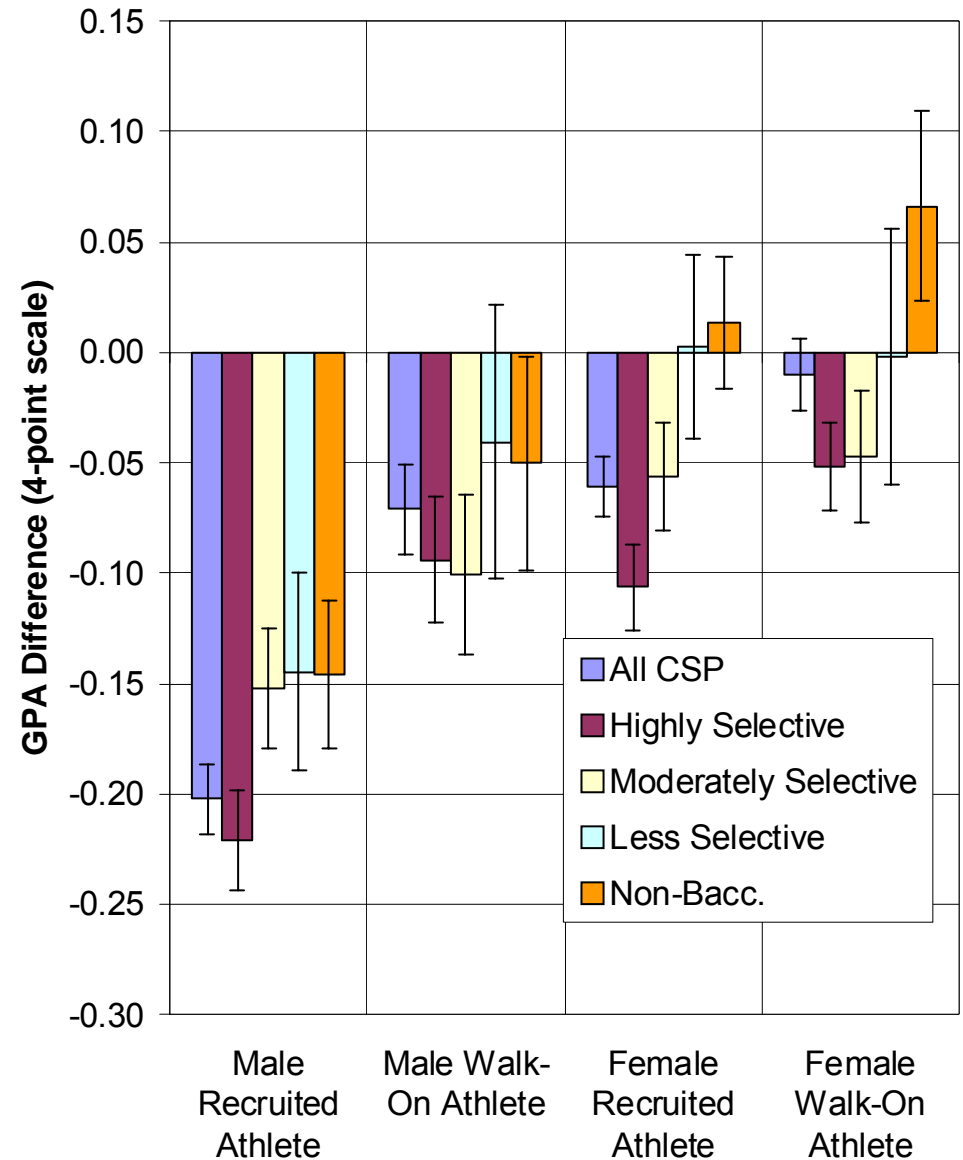
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<b>Athlete Status</b>	<b>Highly Selective</b>	<b>Moderately Selective</b>	<b>Less Selective</b>	<b>Non-Bacc.</b>	<b>Total</b>
<b>Male Non-Athlete</b>	6,288	6,502	2,921	7,023	22,734
<b>Male Recruited Athlete</b>	2,355	2,822	2,127	1,647	8,951
<b>Male Walk-On Athlete</b>	1,452	1,492	617	581	4,142
<b>Female Non-Athlete</b>	12,250	10,006	4,970	10,198	37,424
<b>Female Recruited Athlete</b>	1,936	1,929	1,180	1,214	6,259
<b>Female Walk-On Athlete</b>	1,938	1,262	575	443	4,218
<b>Total</b>	26,219	24,013	12,390	21,106	83,728

Even smallest sample size is > 400

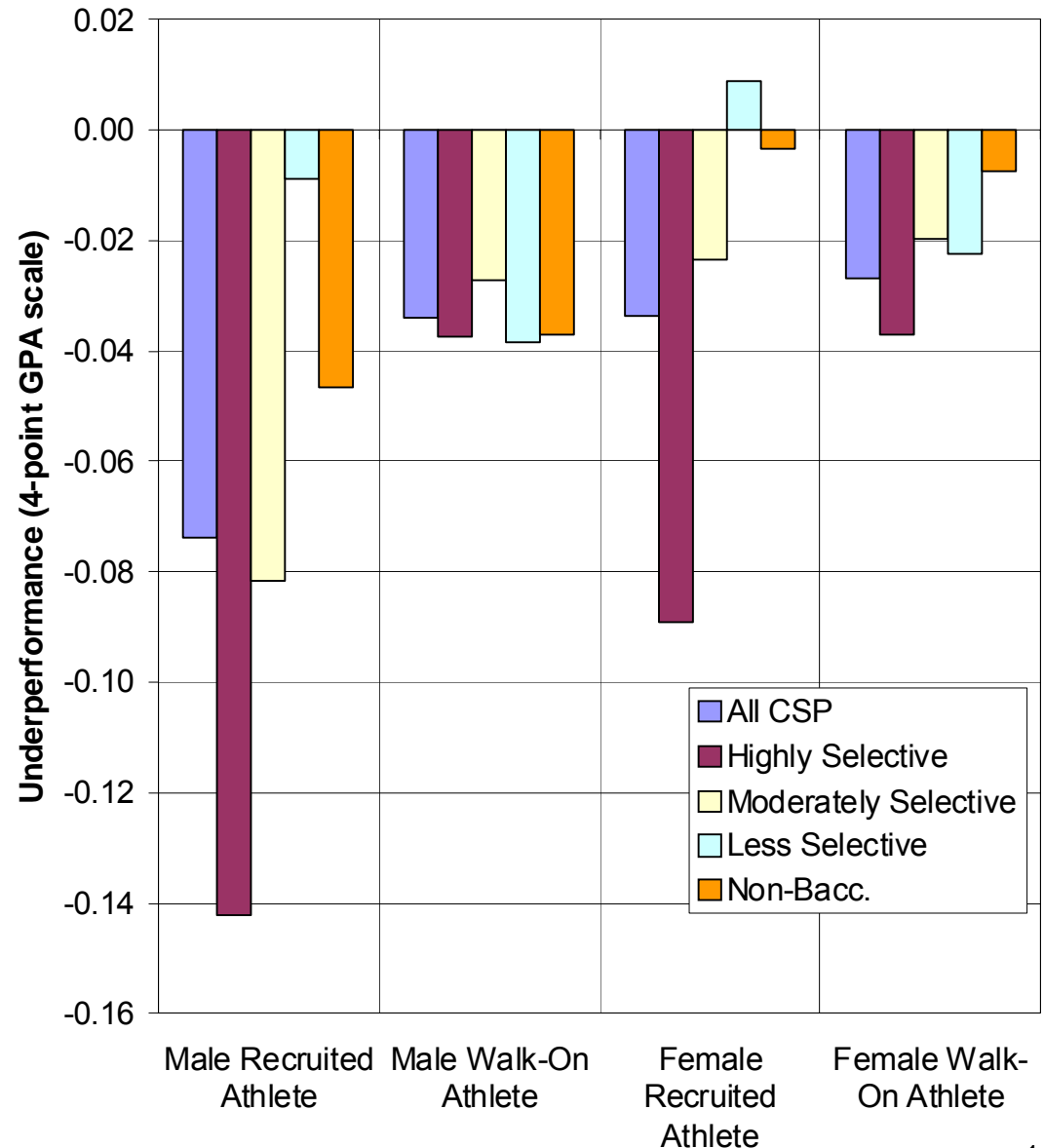
# College GPA Difference by Selectivity

- Each group is compared to non-athletes of the same gender
- Male recruited athletes have greatest negative difference with male non-athletes
- Female walk-on athletes have GPA's closer to non-athletes
- Difference is statistically significant for all athlete groups for highly selective and moderately selective institutions
- All differences may not have practical significance



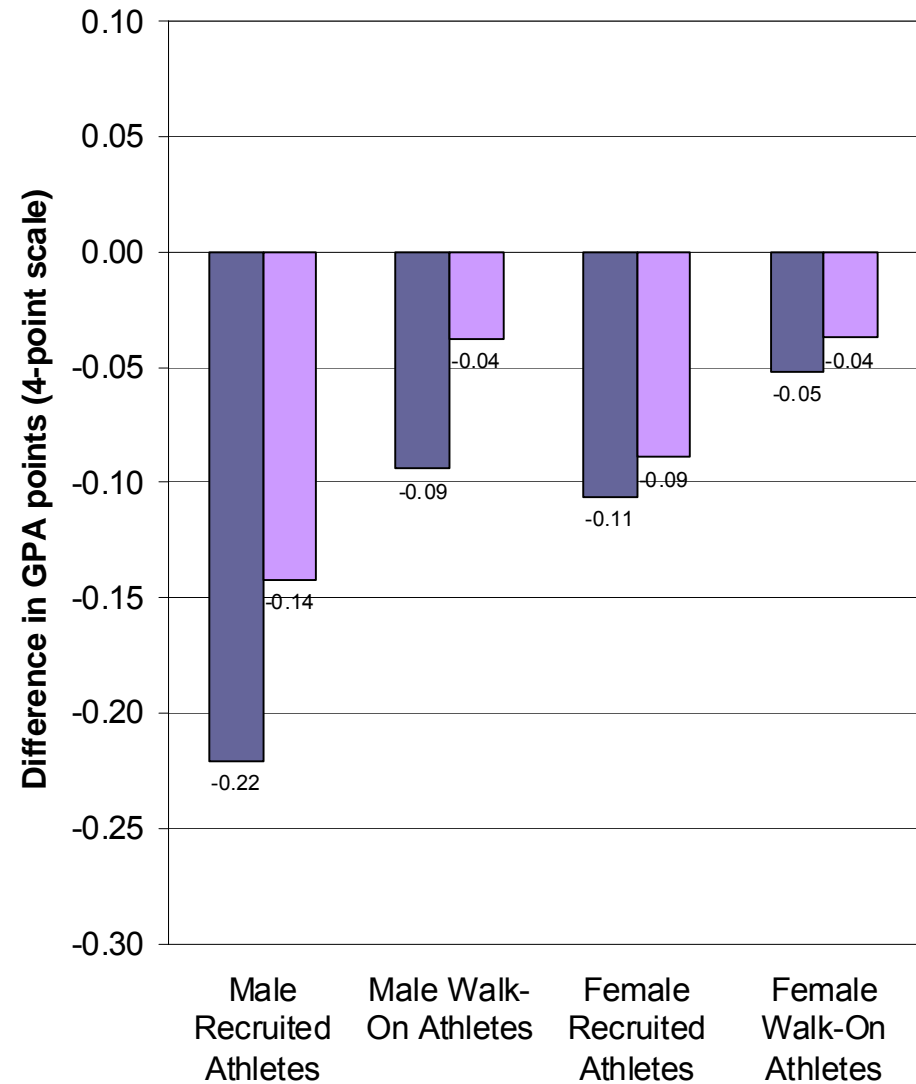
# Underperformance by Selectivity

- Male recruited athletes have greatest underperformance
- Athletes at highly selective institutions have greatest underperformance
- Underperformance is meaningful/important (greater than 0.1) only for male recruited athletes at highly selective institutions
- Underperformance for female athletes (except recruited at highly selective) is small



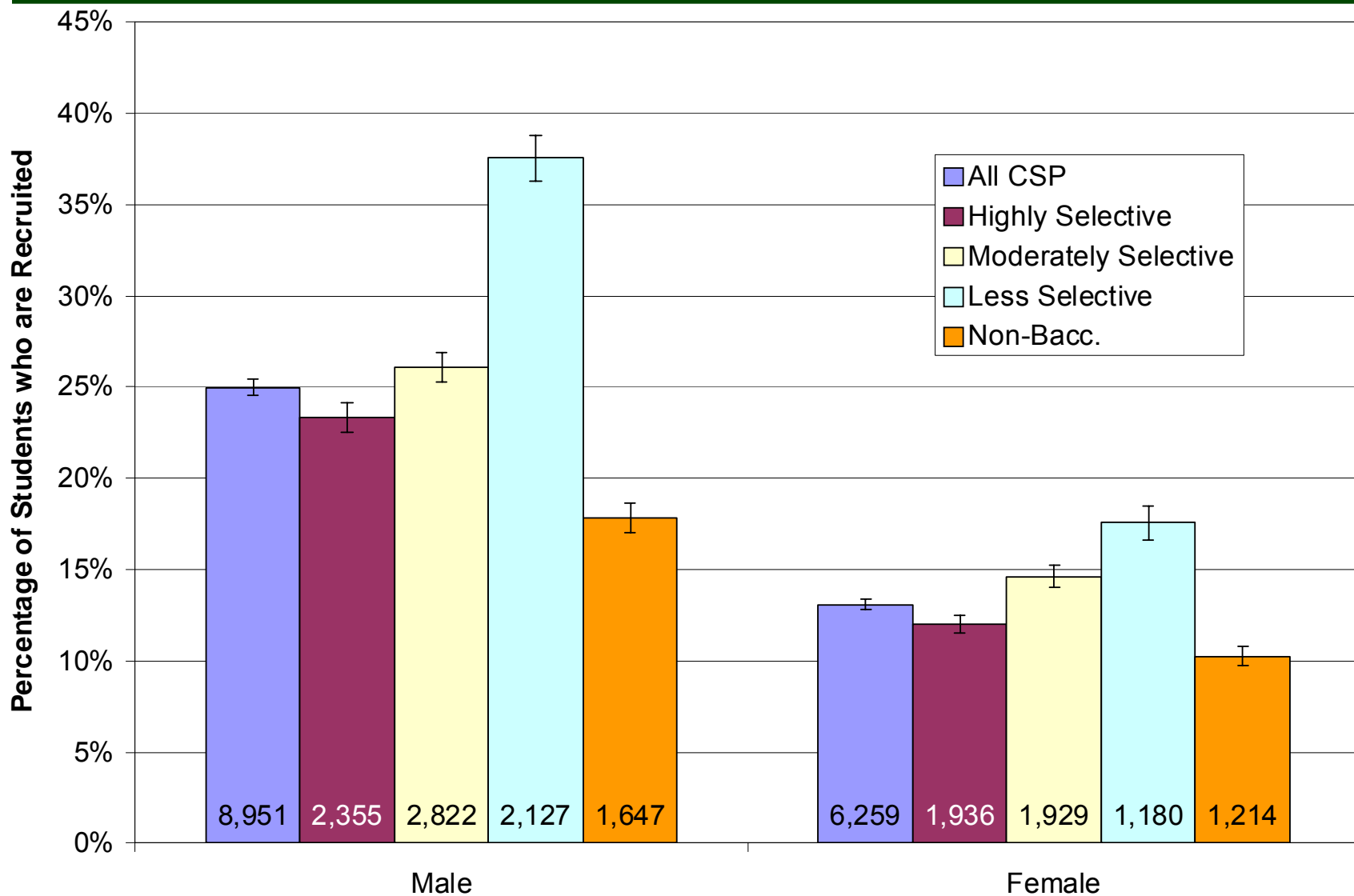
# GPA Difference and Underperformance Highly Selective Institutions

- For recruited athletes, most of GPA difference is underperformance
  - GPA difference is not well explained by differences in incoming characteristics
- Most of GPA difference for female athletes is underperformance
  - There is little in the background characteristic differences between female athletes and non-athletes to explain the GPA difference



■ Observed Difference in GPA between Athletes and Non-Athletes  
■ Calculated Underperformance for Athletes

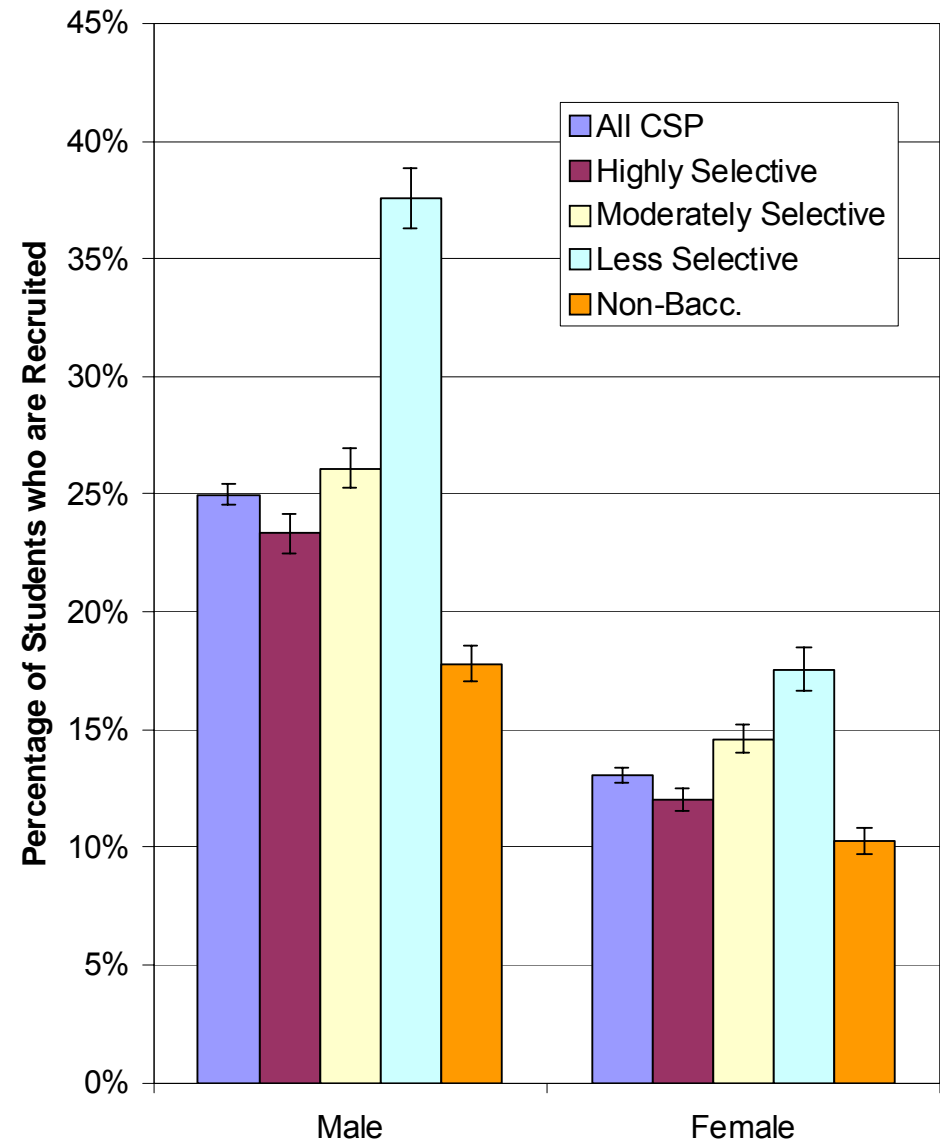
# Athletic Recruitment





# Athletic Recruitment

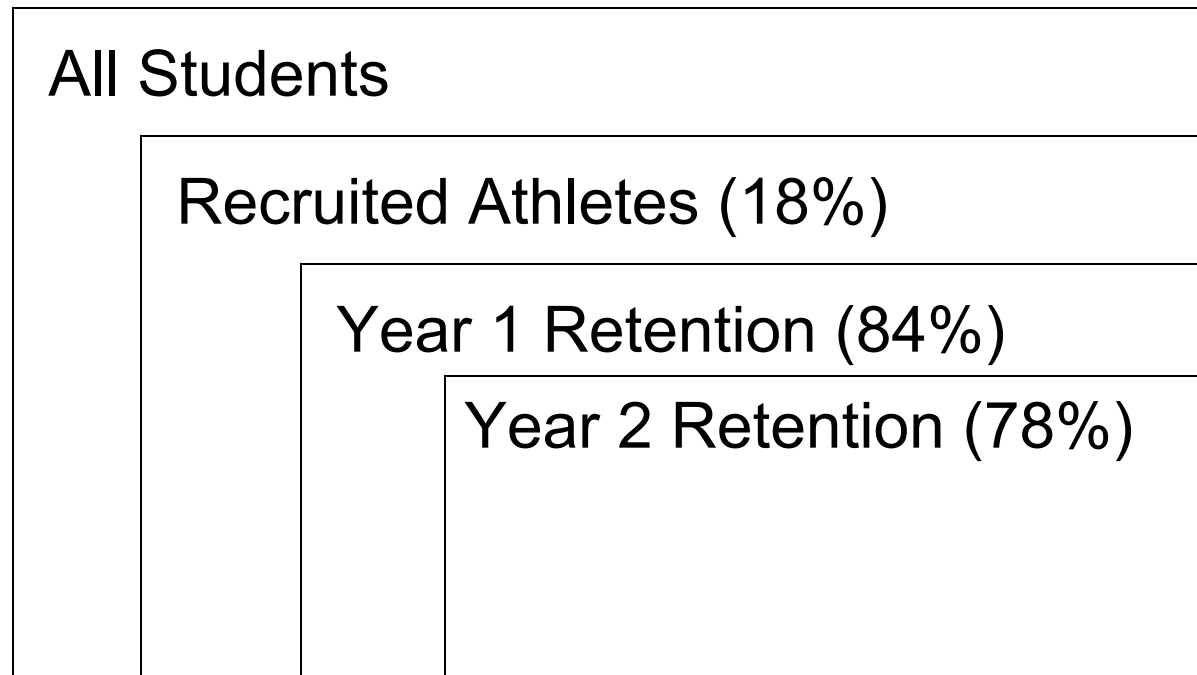
- A greater percentage of male students than female students are recruited for athletics
- Less selective institutions recruit a higher percentage of their students
  - At less selective institutions over a third of the male students are recruited athletes
- Differences in percentage of recruited students between institutional selectivity levels are statistically significant
- Recruited athletes include some students who never played in college



# Athletic Retention

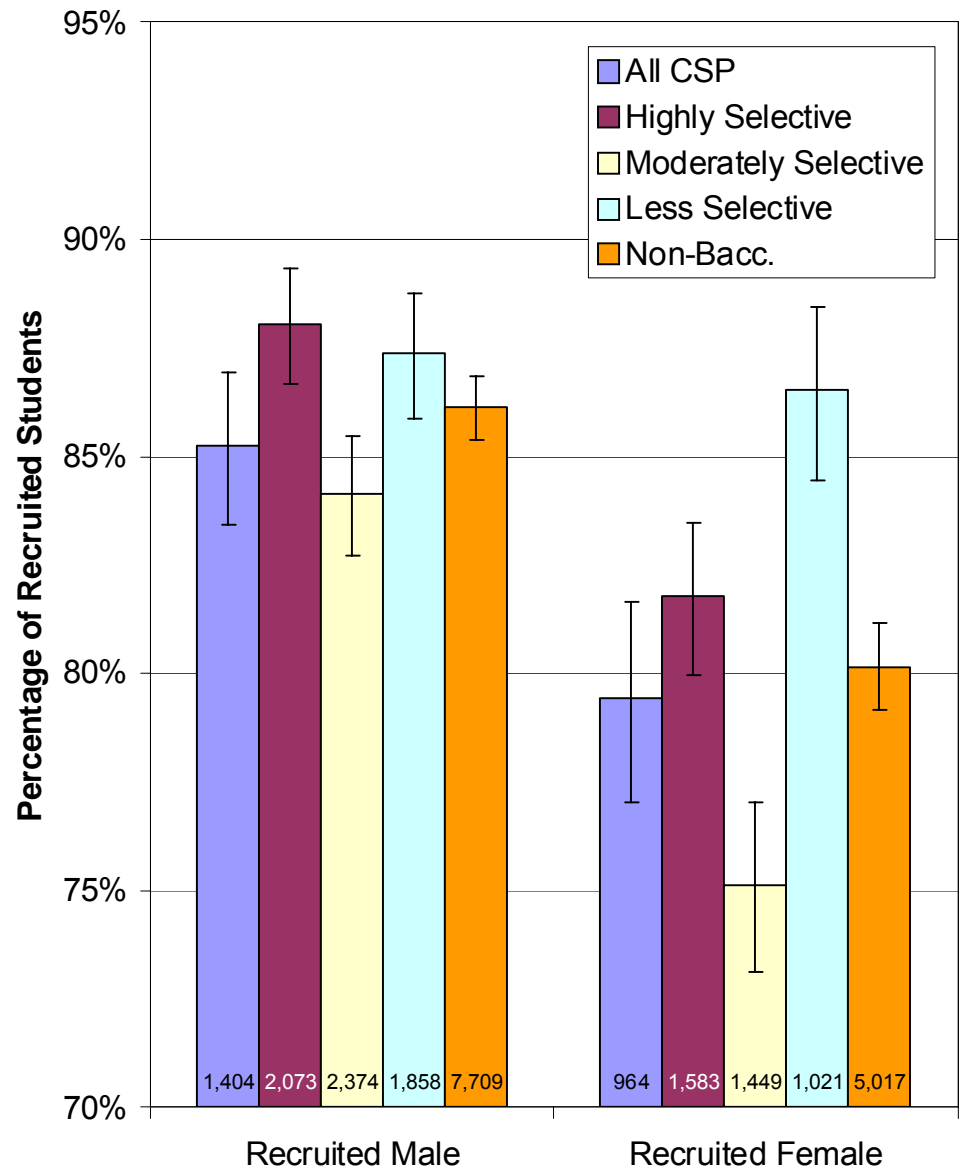
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- **Year 1 Retention:** percentage of recruited students who played the sport for which they were recruited in Year 1
- **Year 2 Retention:** percentage of recruited Year 1 players who also played in Year 2 (sport for which they were recruited)



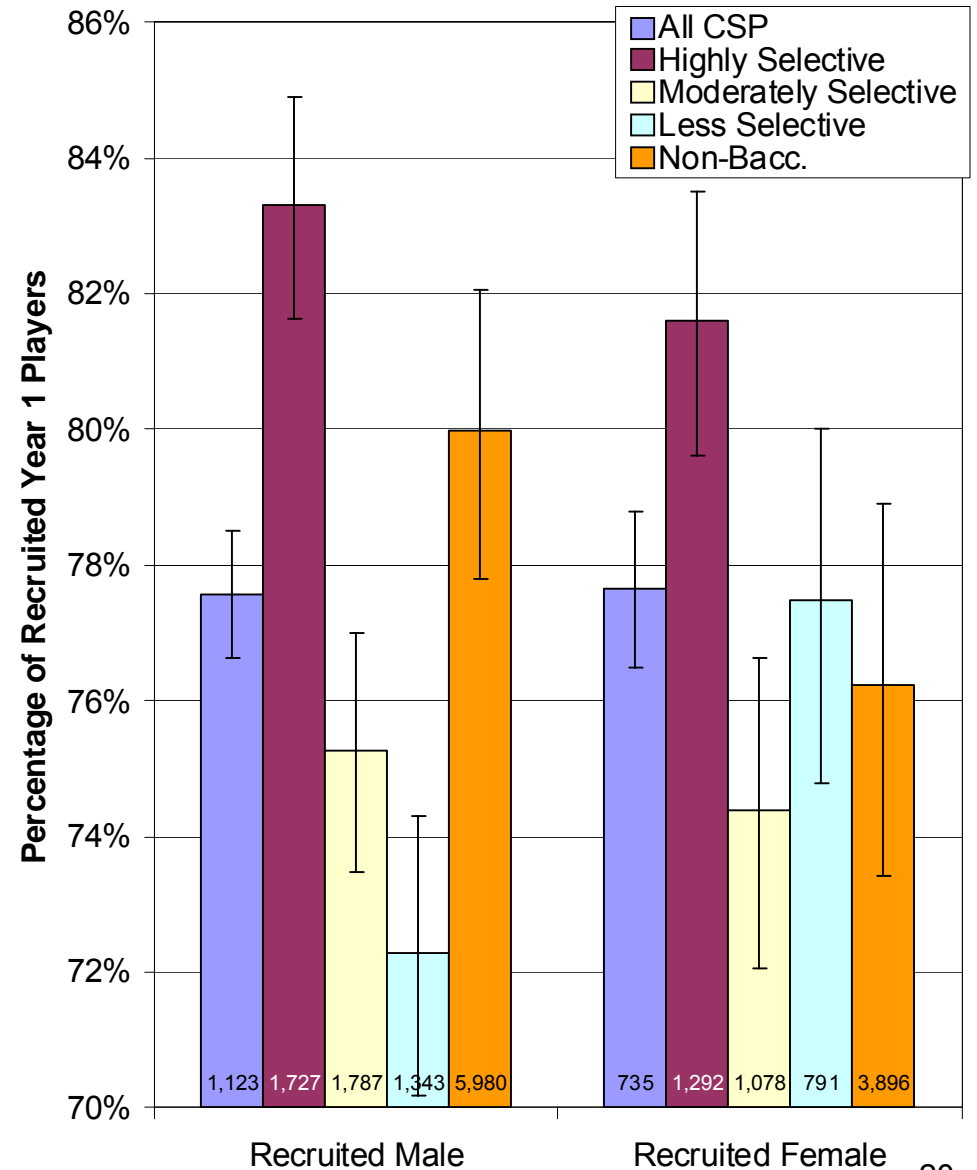
# Year 1 Retention in Recruited Sport

- **Year 1 Retention:** percentage of recruited students who played the sport for which they were recruited in Year 1
- 85% of male recruited students play the sport for which they were recruited in year 1, compared to 79% of women
- Moderately selective institutions have significantly lower year 1 athletic retention than other institutions



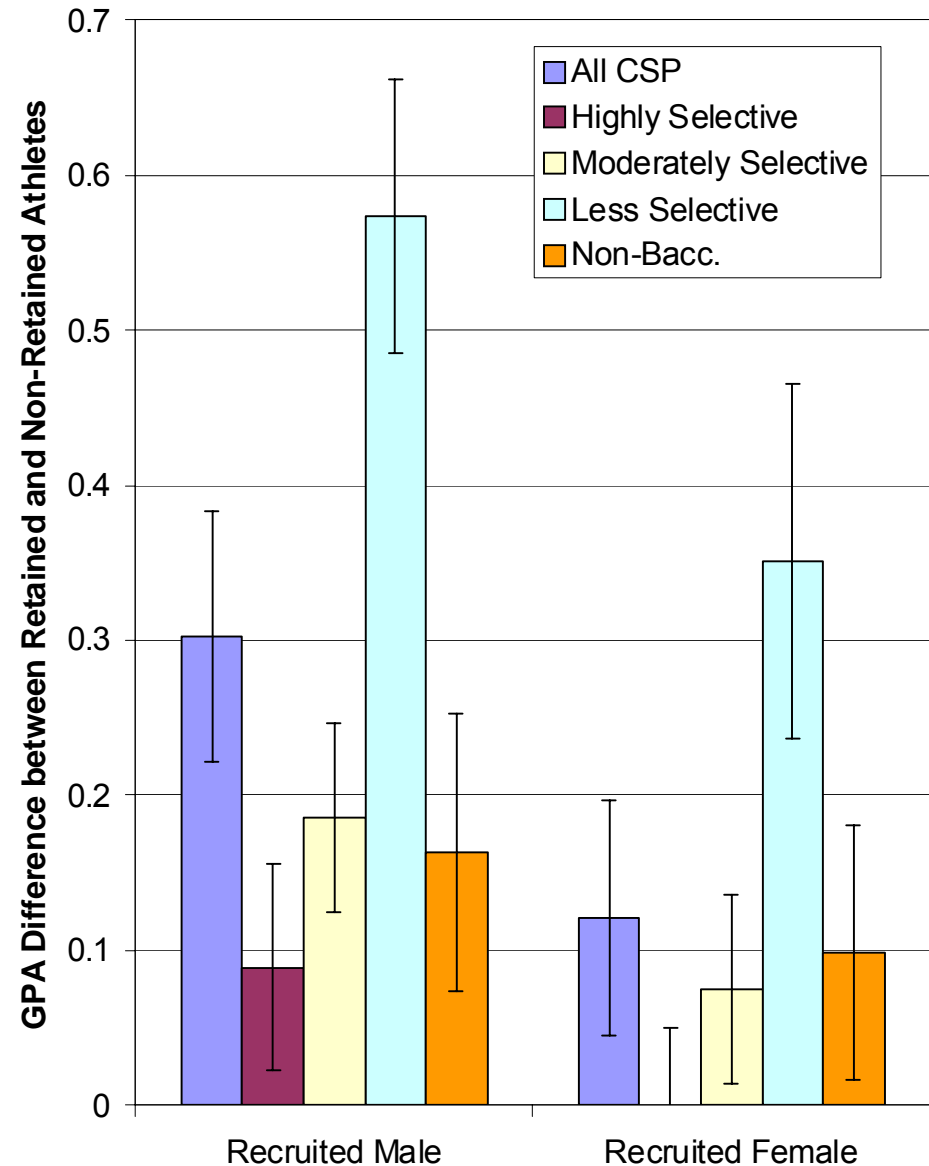
# Year 2 Retention in Recruited Sport

- **Year 2 Retention:** percentage of recruited Year 1 players who also played in Year 2 (sport for which they were recruited)
- 22% of recruited men and women who played in year 1 do not return in year 2
- Year 2 athletic retention is significantly higher at highly selective institutions for both men and women
  - Academic support services?
- At less selective institutions, recruited women who played in year 1 are more likely than men to continue playing in year 2
- 30% of male students and 21% of female students not retained in sport withdrew from school by end of year 2
- Lowest athletic retention is among men in less selective institutions



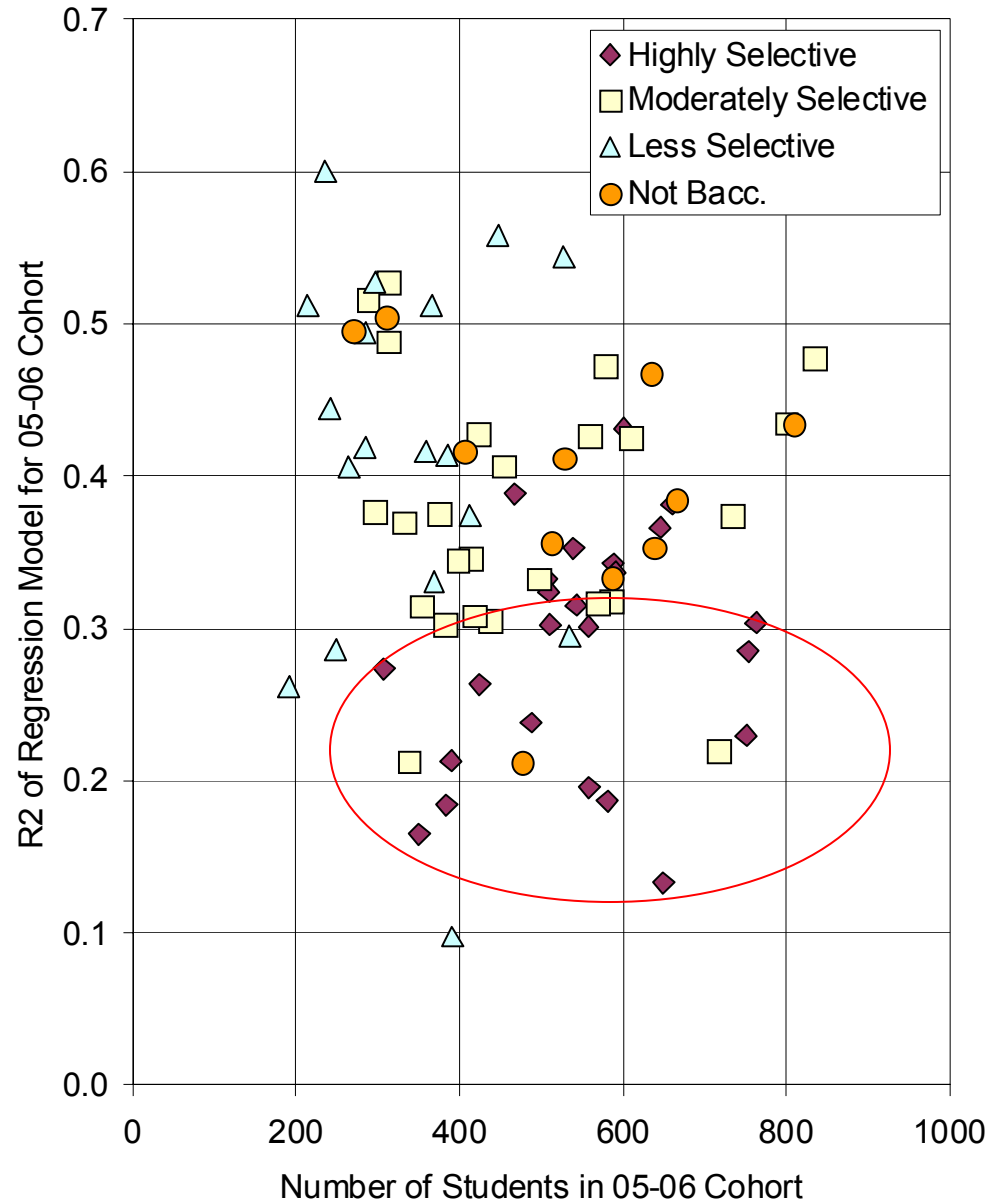
## Year 2 Retention: GPA Difference between Retained and Non-Retained Athletes by Selectivity

- Academic performance may be related to decision to play sport in year 2 primarily at less selective institutions
- GPA difference between retained and non-retained athletes is statistically significant
- Highly selective institutions have the smallest GPA difference
- GPA difference is largest at less selective institutions
- GPA difference is smaller for female athletes at all selectivity levels



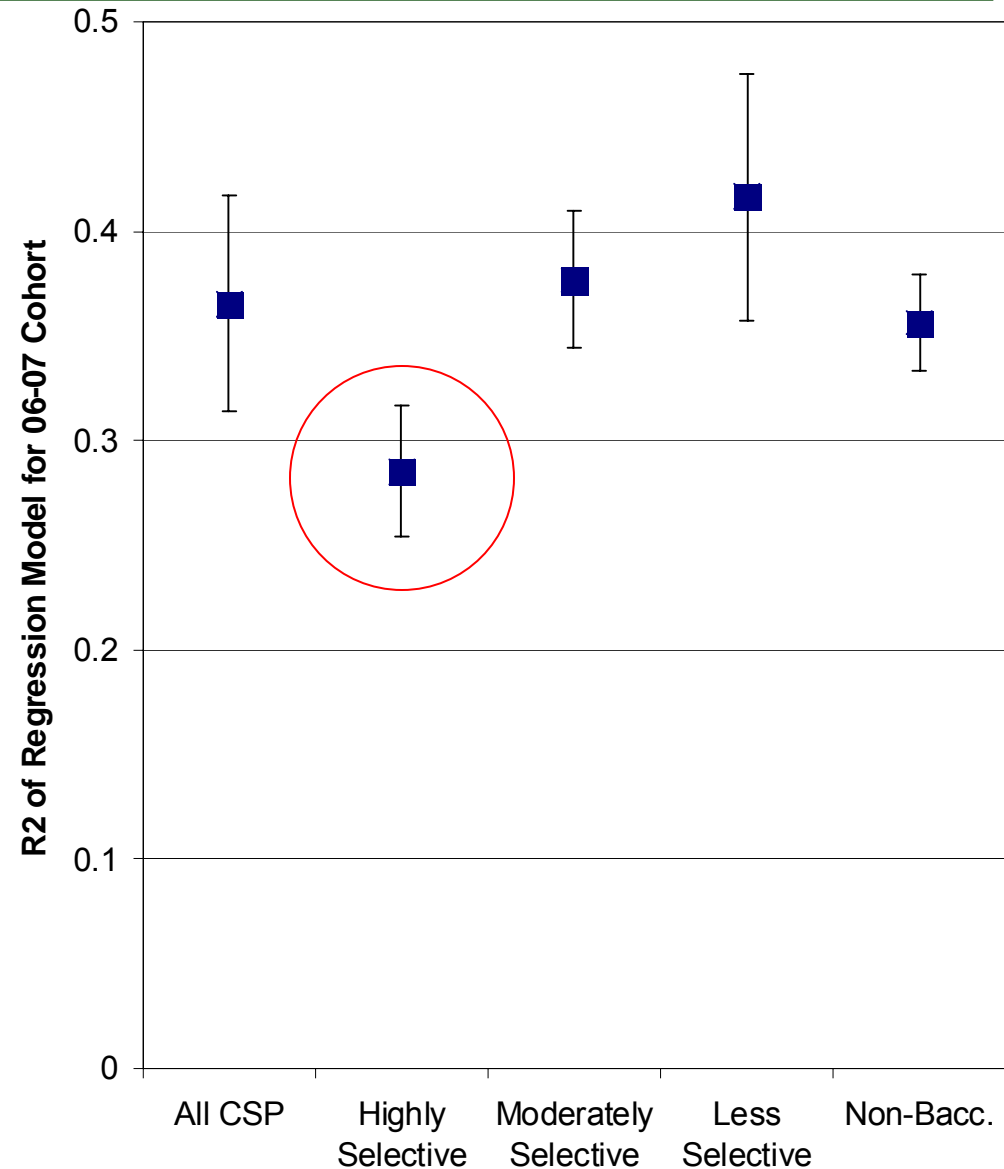
# Regression Model Predicting GPA is Robust

- 20% to 50% of variation in GPA can be explained by model
- Model operates similarly for
  - Different institutional sizes
  - Different cohorts
  - Different recruitment methods (admissions vs. coach)



# R<sup>2</sup> by Selectivity

- Students at highly selective institutions may be relatively homogeneous with regard to SAT scores, high school ranks and college GPAs, making it difficult for regression models to predict differences in college grades



# Research Findings

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- Male athletes, especially male recruited athletes do less well academically than their non-athlete counterparts
- Much of this difference is not explained using background variables (high school performance, demographics)
- Recruited athletes at highly selective institutions have larger negative GPA differences and underperformance athletes at moderately and less selective institutions
- Less selective institutions recruit a larger fraction of their student bodies
- Higher percentage of recruited year 1 players continue playing in year 2 at highly selective institutions than at institutions of lower selectivity levels
- $R^2$  for the regression model is lower at highly selective institutions than at other institutional selectivity levels



# Conclusions

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- Institutional selectivity highlights diversity of athletic / academic experiences within Division III.
- Being a recruited male or female athlete is related to underperformance at most, but not all Division III institutions in the CSP. The exceptions are often among the less selective institutions.
- At less selective institutions, there is smaller underperformance, but also lower year 2 athletic retention in the sport for male recruited athletes.
- At highly selective institutions, there is greater underperformance, but higher year 2 athletic retention in the sport for male recruited athletes.

# Academic Performance & Athletic Retention within NCAA Division III *Does Race/Ethnicity Matter?*

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# Diversity in Higher Education

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- Research has been done about the relationships between ethnicity, athletics, and academic performance in Division I
  - Recruited minority athletes have average high school credentials significantly worse than those of non-recruited students. (Schulman and Bowen, 2001)
  - Institutions have a disproportionately high number of athletes within minority student groups (Lederman, 2008).
  - Graduation rates among minority athletes are higher than among non-athletes of the same race (Matheson, 2007).
- Less is known about the relationship between ethnicity, athletics, and academic performance within Division III
  - Study of three institutions found that athletic teams tend to have less racial diversity than the student population as a whole (Fried, 2007).

# Sample Sizes

## Combined 2005-2006 and 2006-2007 Cohorts

### All CSP Institutions

Gender, Athlete Status	Asian	Black	Hispanic	White	Other	Unknown	Total
Male Non-Athletes	1,538	793	1,109	15,889	699	2,706	22,734
Male Recruited Athletes	182	553	271	7,123	217	605	8,951
Male Walk-On Athletes	168	242	159	3,060	115	398	4,142
Female Non-Athletes	2,765	1,794	2,009	25,062	1,426	4,368	37,424
Female Recruited Athletes	192	181	161	5,146	157	422	6,259
Female Walk-On Athletes	235	167	176	3,134	112	394	4,218
Total	5,080	3,730	3,885	59,414	2,726	8,893	83,728

### Highly Selective Institutions

Gender, Athlete Status	Asian	Black	Hispanic	White	Other	Unknown	Total
Male Non-Athletes	521	252	375	4,288	107	745	6,288
Male Recruited Athletes	110	114	78	1,882	48	123	2,355
Male Walk-On Athletes	96	81	78	1,042	23	132	1,452
Female Non-Athletes	1,439	675	838	7,385	299	1,614	12,250
Female Recruited Athletes	106	52	41	1,582	40	115	1,936
Female Walk-On Athletes	164	92	105	1,338	52	187	1,938
Total	2,436	1,266	1,515	17,517	569	2,916	26,219

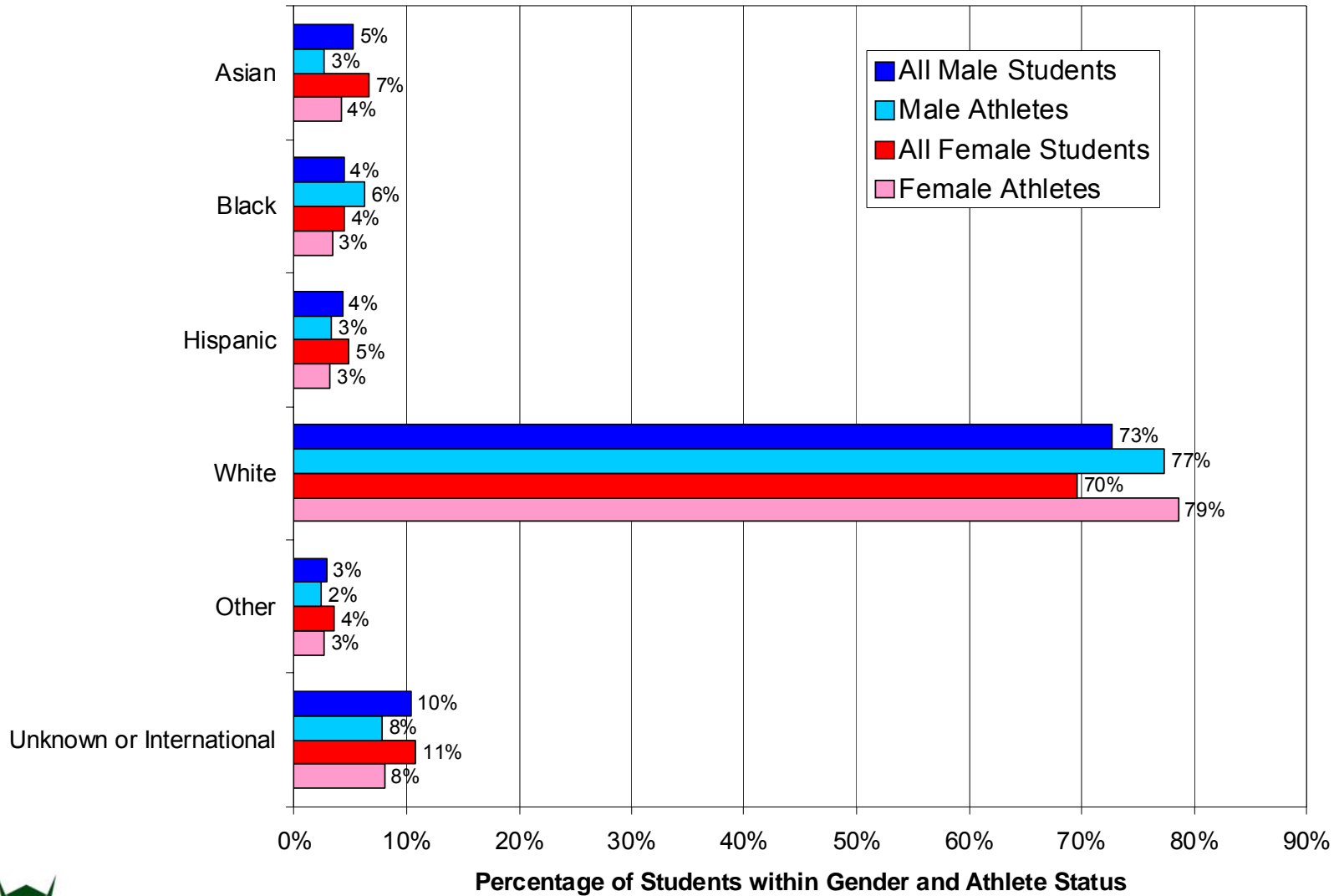
# Main Findings

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- Athletic participation and recruitment patterns vary by race and by institutional selectivity.
- Moderately and less selective institutions recruit a higher fraction of Black, Hispanic and White students than highly selective institutions.
- Hispanic athletes at highly selective institutions have GPAs comparable to their non-athlete counterparts, whereas Black and White athletes at these institutions have lower GPAs than their non-athlete counterparts.
- Highly selective institutions have the largest underperformance for Black and White male athletes, while less selective institutions have largest underperformance for Hispanic male athletes.

# Racial-Ethnic Distribution in CSP Institutions

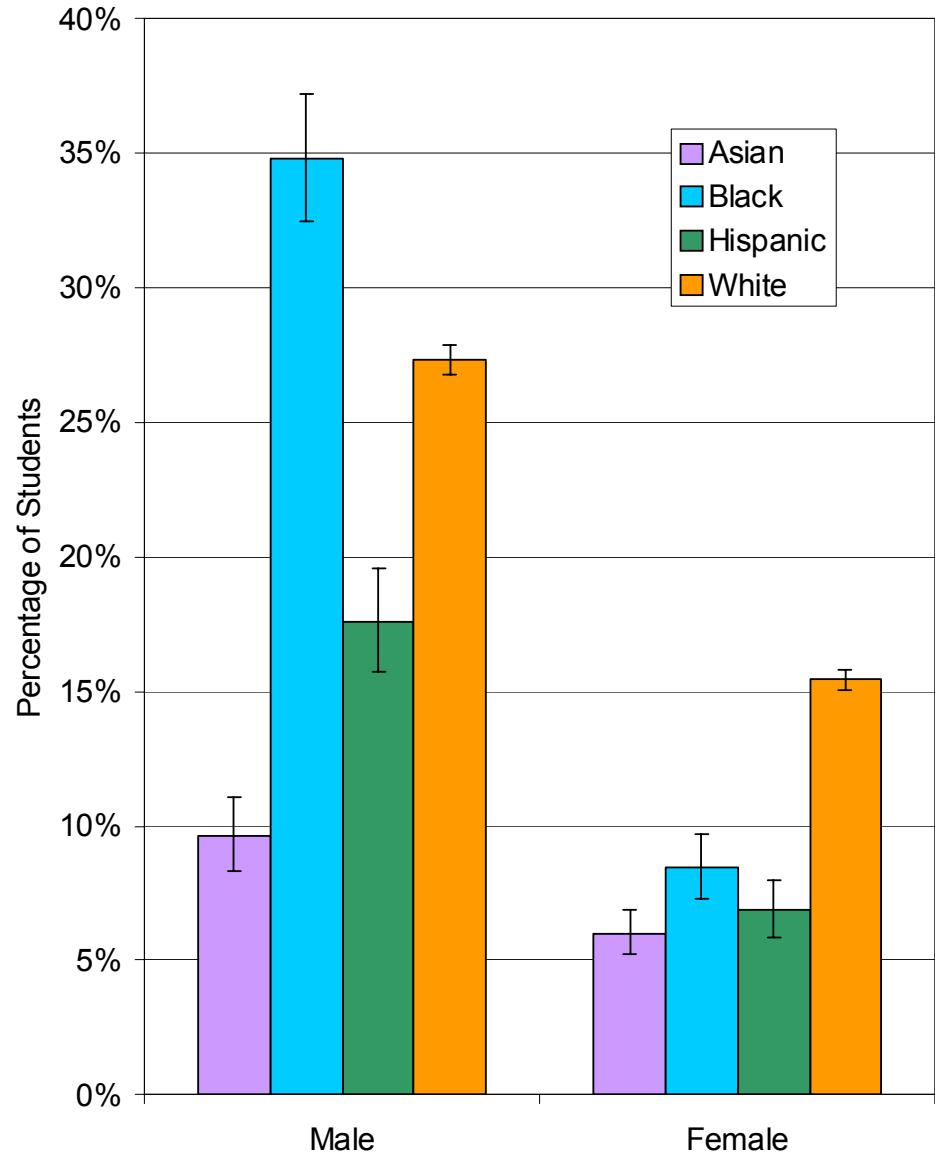
Racial/Ethnic distributions of students and athletes are about the same



Bars of same color add to 100%  
30

# Percentage of Students who are Recruited

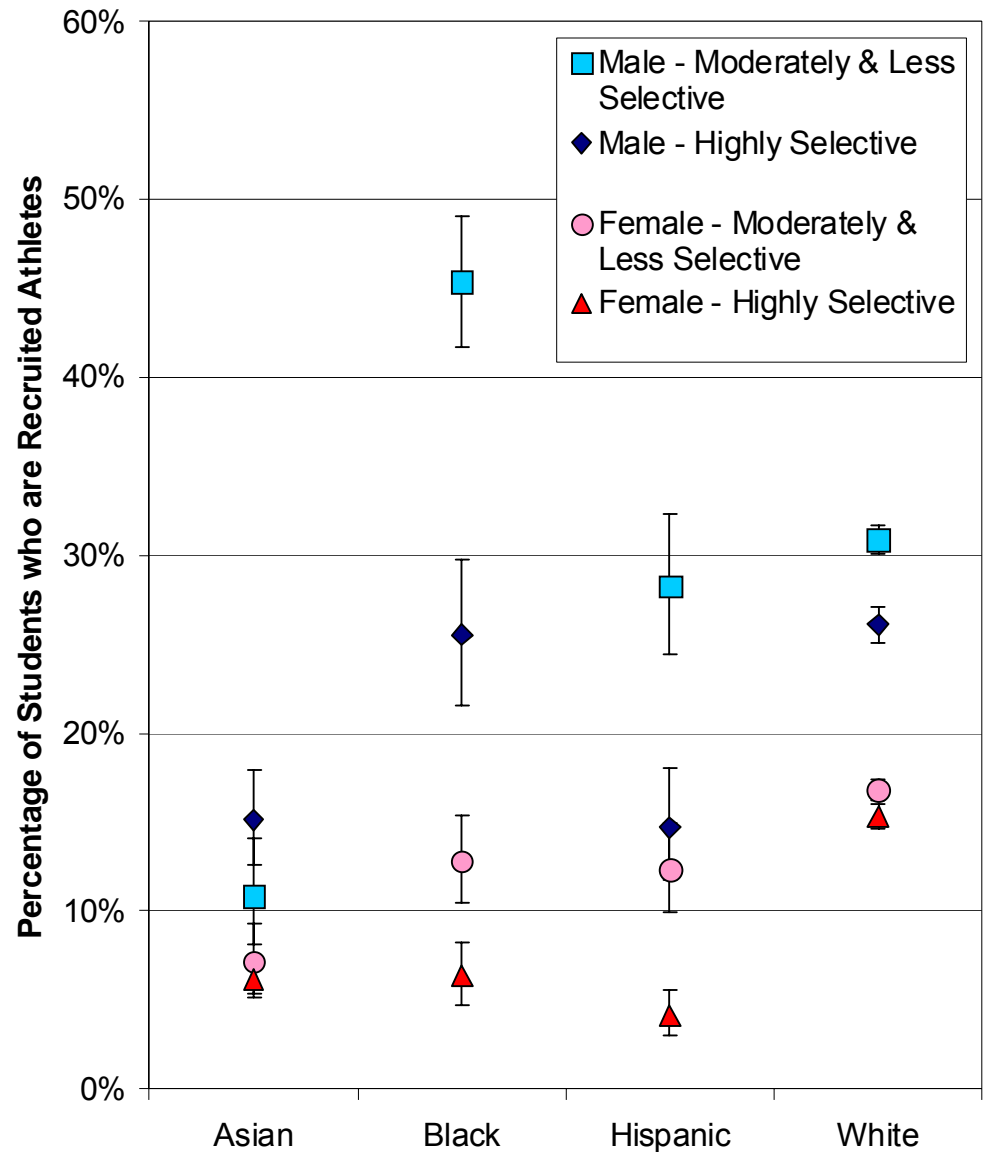
- A higher percentage of men than women are recruited athletes
- A significantly higher percentage of Black and White men are recruited athletes than the corresponding percentages among Asian and Hispanic men
- A significantly higher percentage of White women are recruited athletes than other women
- Asian students have the lowest percentage of recruited athletes
- Differences are statistically significant for men



Error bars show 95% confidence interval  
"Other" and "Unknown" not plotted

# Recruitment by Selectivity

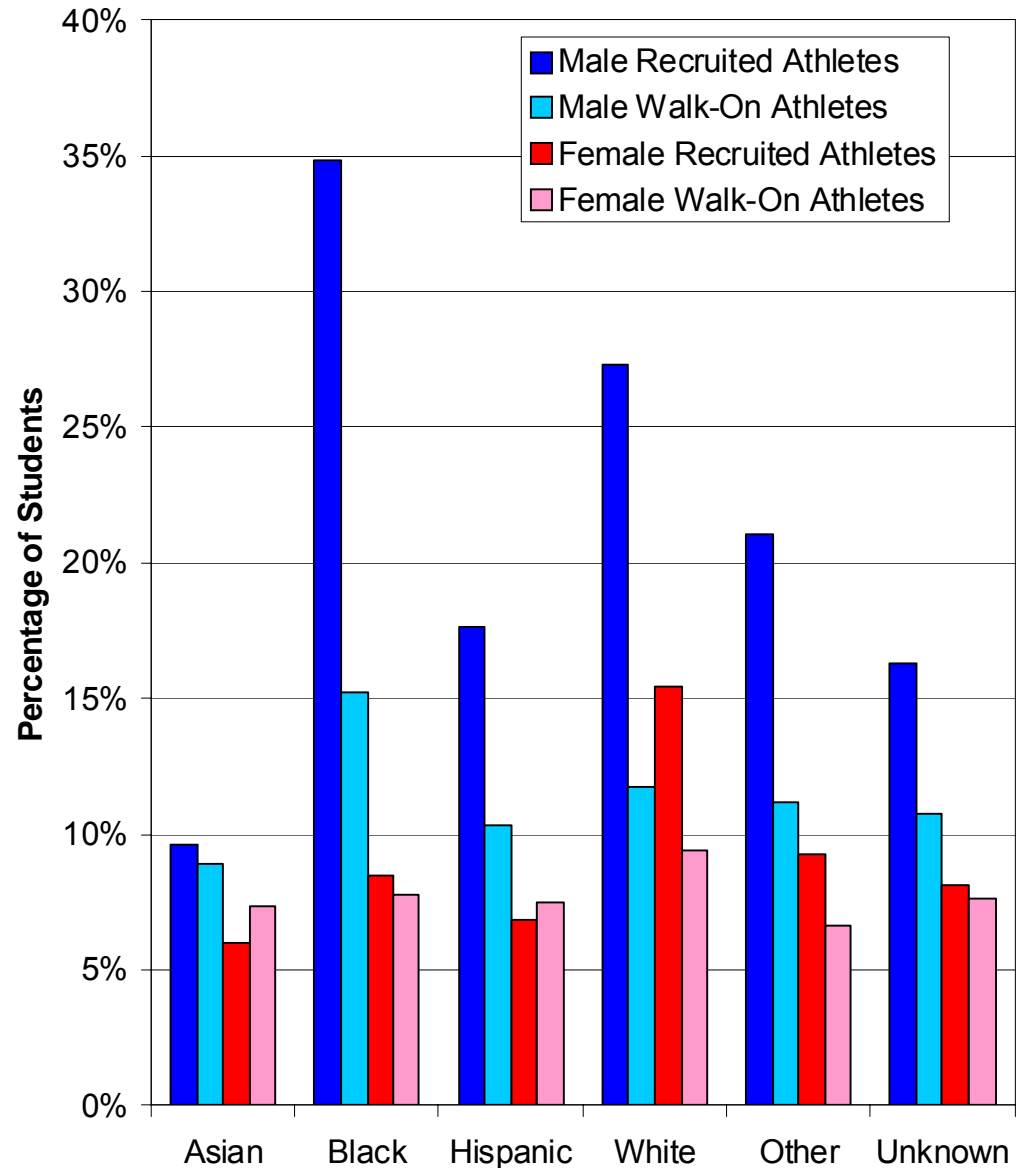
- Highly selective institutions recruit a smaller percentage of their Black, Hispanic and White students than moderately and less selective institutions
- A larger percentage of Black male students at moderately and less selective institutions are recruited than students of other races
- At highly selective institutions, Black and White male students are equally likely to be recruited
- Women are less likely to be recruited than men in all categories except Asian students





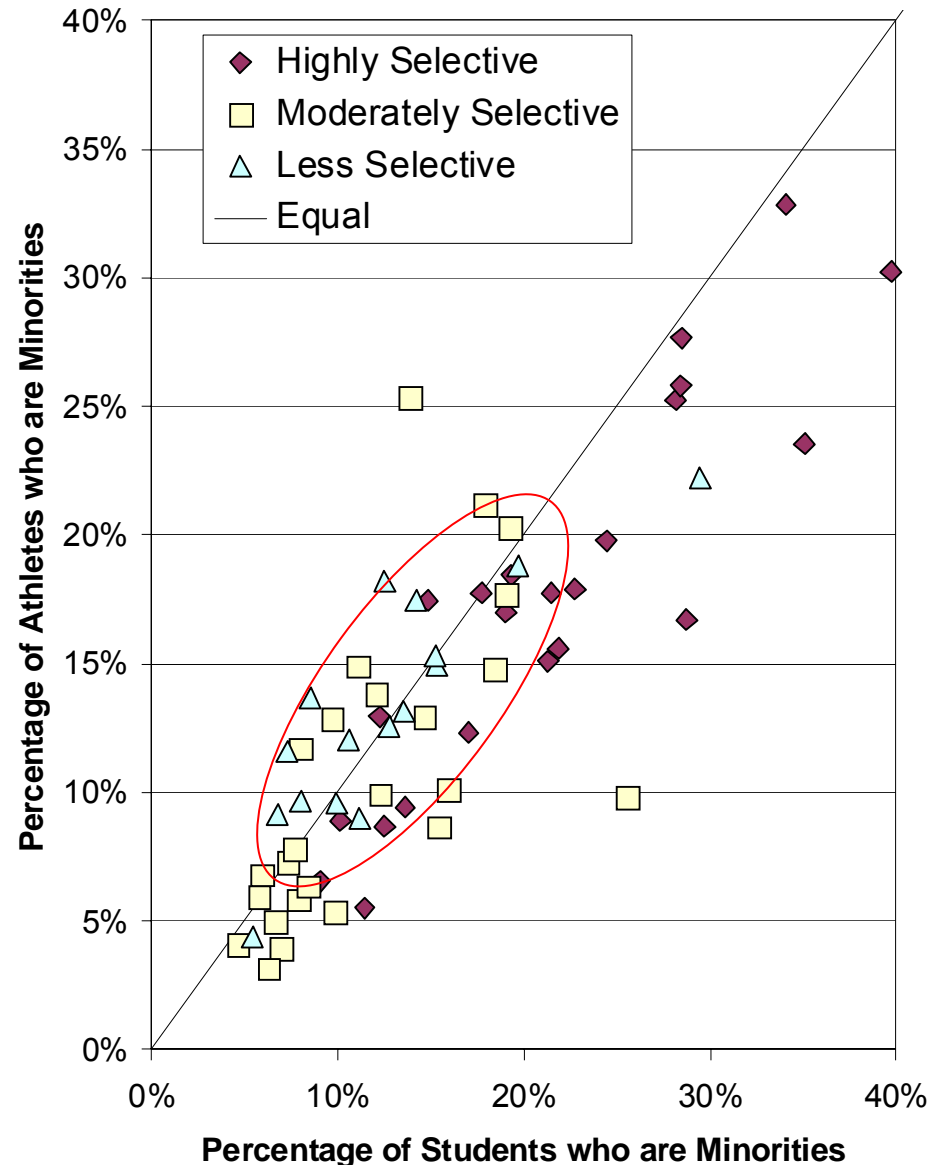
# Percentage of Student Athletes

- Male students are more likely to be athletes than female students
- Black male students are most likely to be recruited athletes, followed by White male students
- Asian students are least likely to be athletes
- Overall, a large percentage of men are athletes in most racial groups (half of Black men, 39% of White men)



# Institutional Selectivity and Athletic Participation

- “Minorities” indicates Asian, Black, Hispanic or Other.
- Typically, highly selective schools have larger fraction of both students and athletes who are minorities
- At highly selective schools, athletes are slightly less diverse than the student body (corroborating Fried, 2007)
- At most institutions, the diversity of athletes reflects the diversity of the institution when all minority students are aggregated
- Most institutions have 10-20% minority students

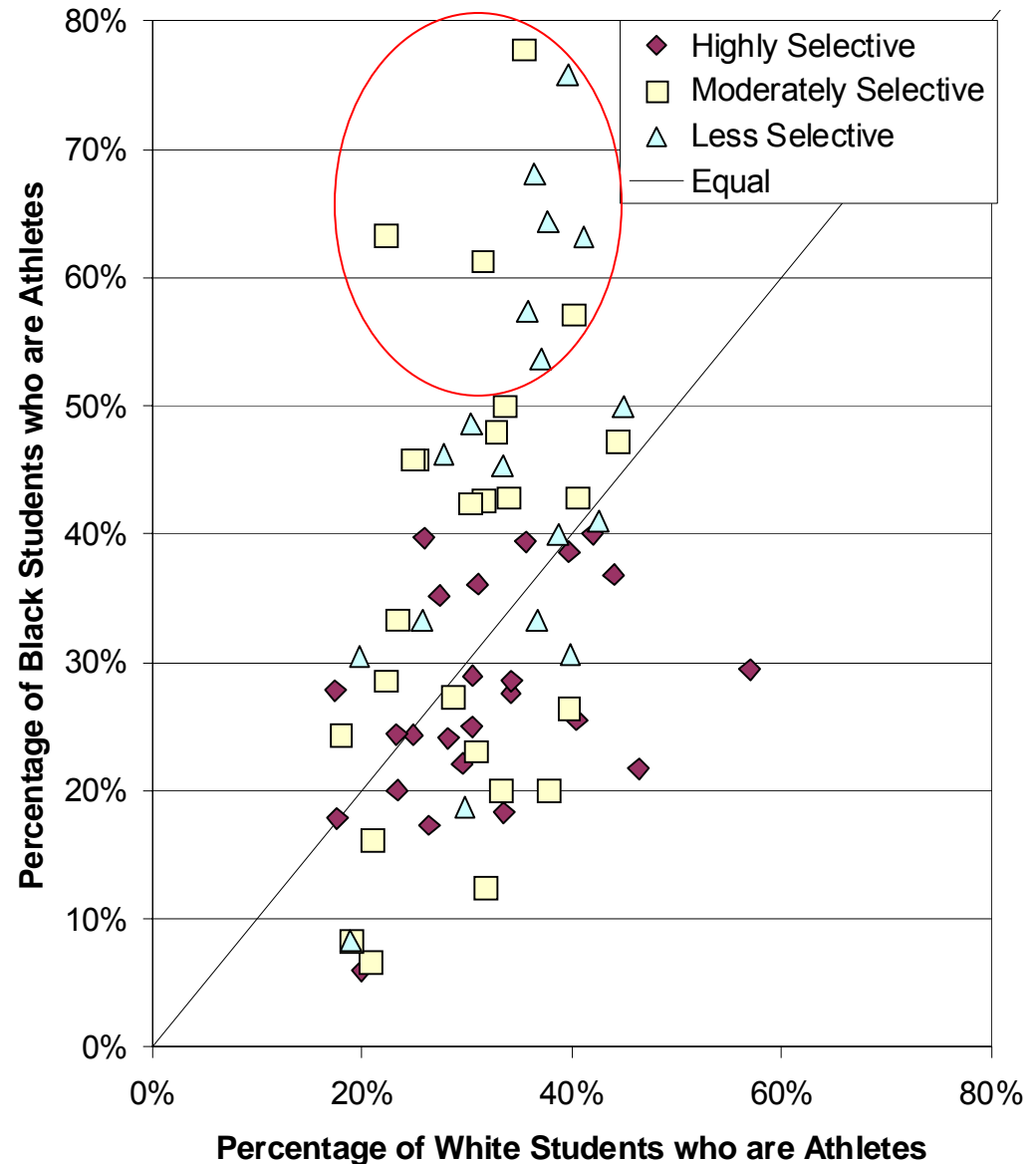


# Athletic Participation – Black Students

- At most institutions, Black students participate in athletics at the same rate as White students
- At some moderately and less selective institutions, Black students are much more likely to be athletes than White students

*Average N per Institution*

	Black	Total
Athlete	14	273
All Students	41	934

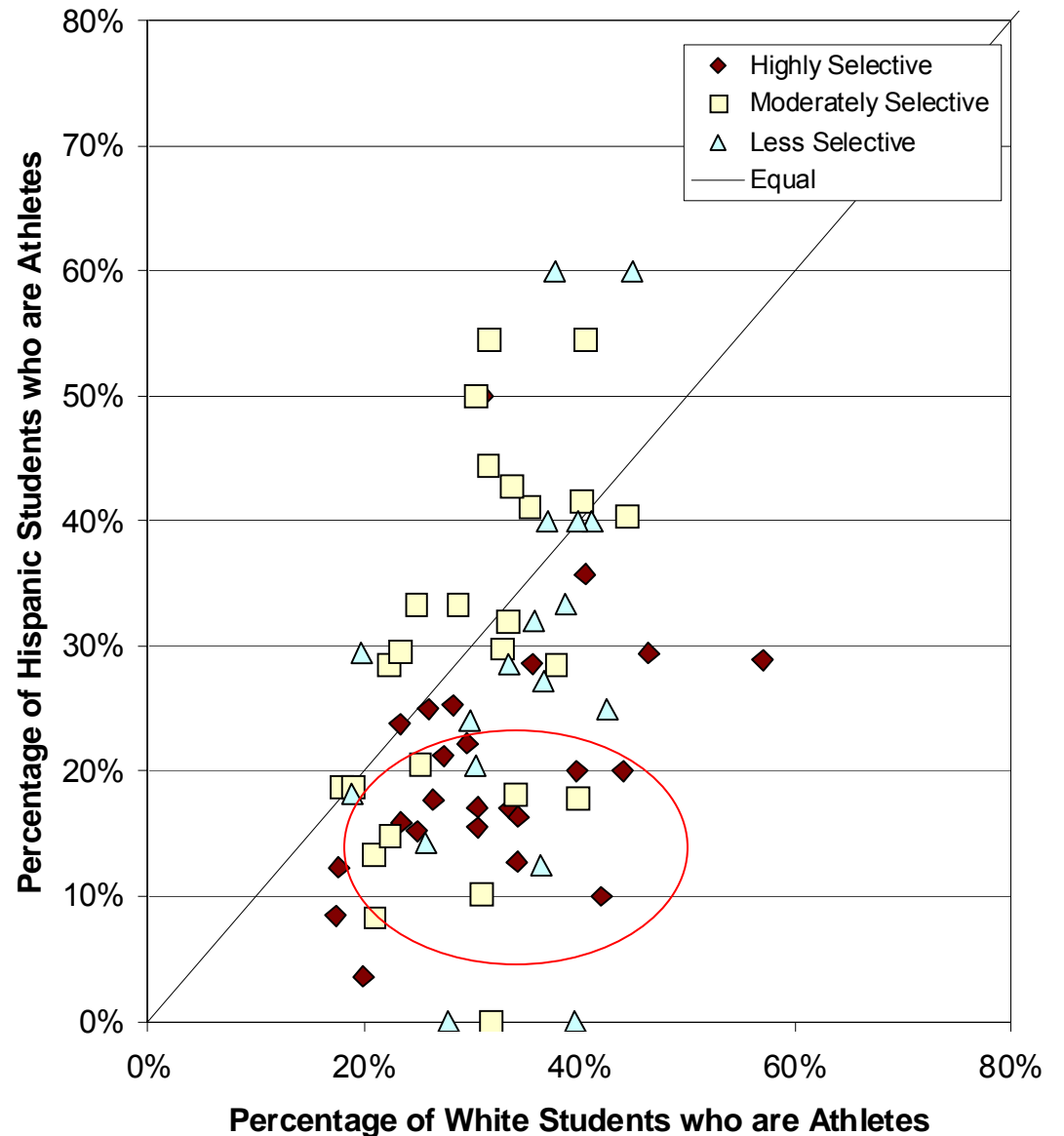


# Athletic Participation – Hispanic Students

- Hispanic students are less likely to be athletes than white students at most institutions, especially at highly selective institutions

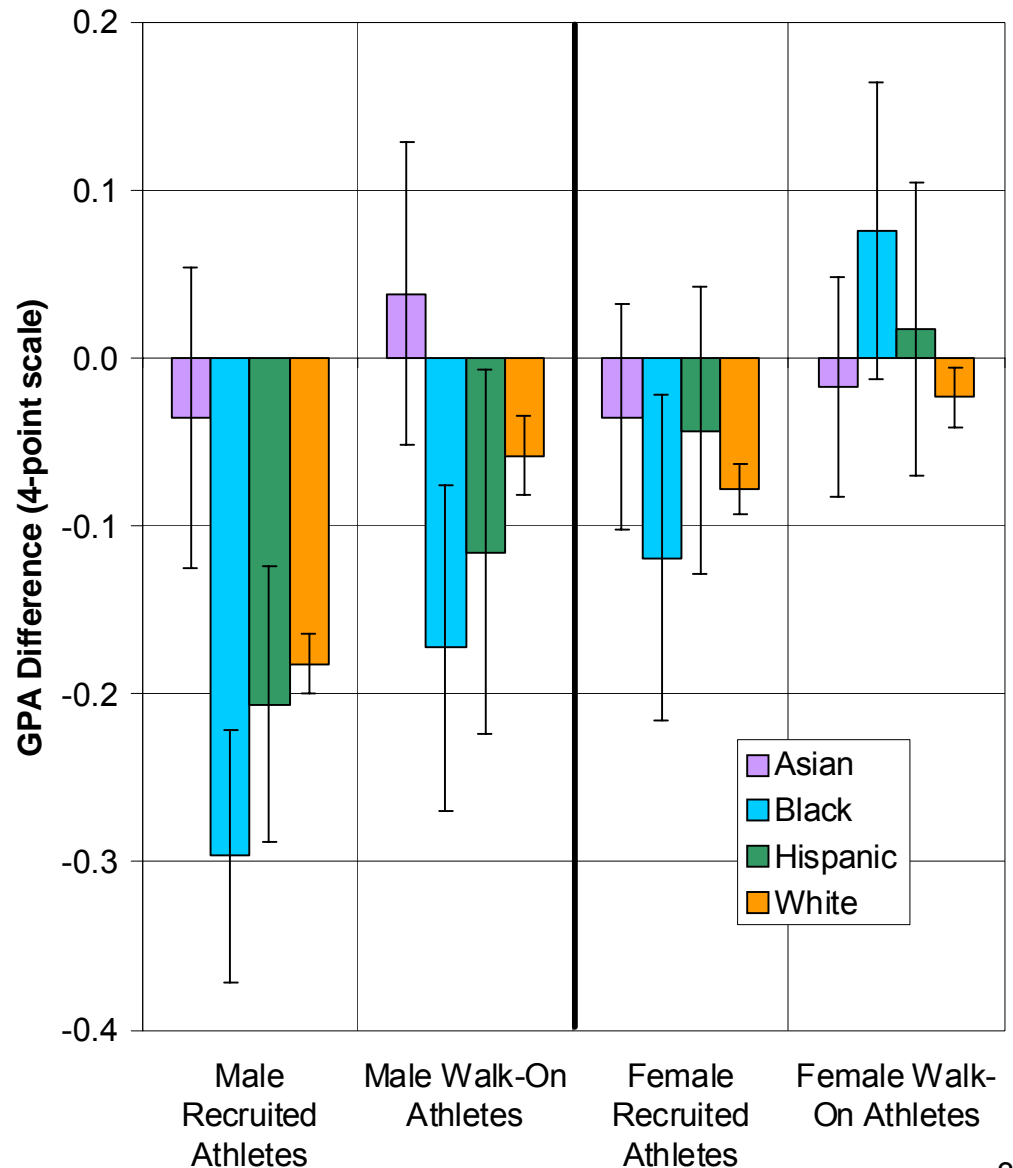
*Average N per Institution*

	Hispanic	Total
Athlete	9	273
All Students	40	934



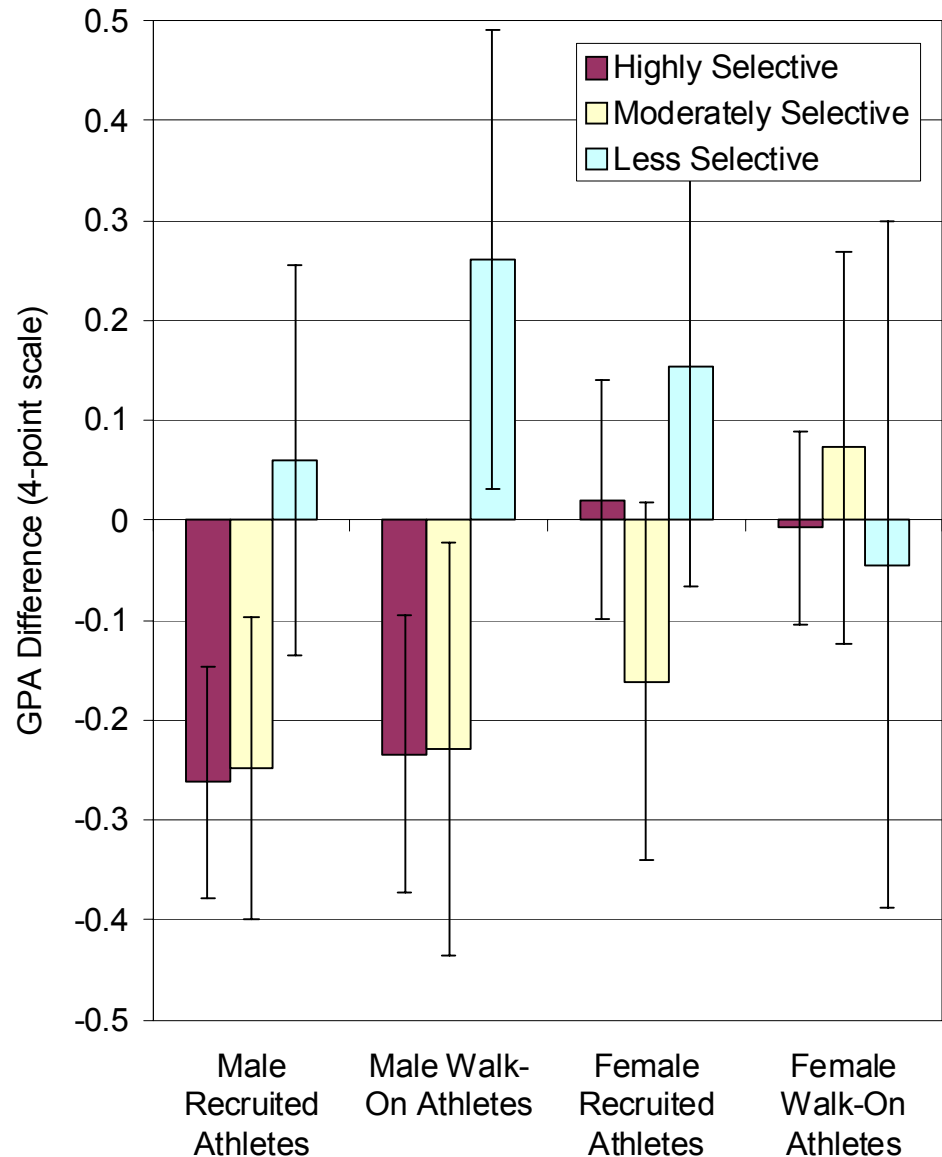
# GPA Differences between Athletes and Non-Athletes

- Comparisons are between athletes and non-athletes in same racial and gender group
- Male recruited athletes have meaningful, statistically significant negative differences for Black, Hispanic and White students
- Female athletes have small (<0.1 point) GPA differences for all groups except Black recruited athletes
- Black and Hispanic female walk-on athletes may slightly outperform their non-athlete counterparts



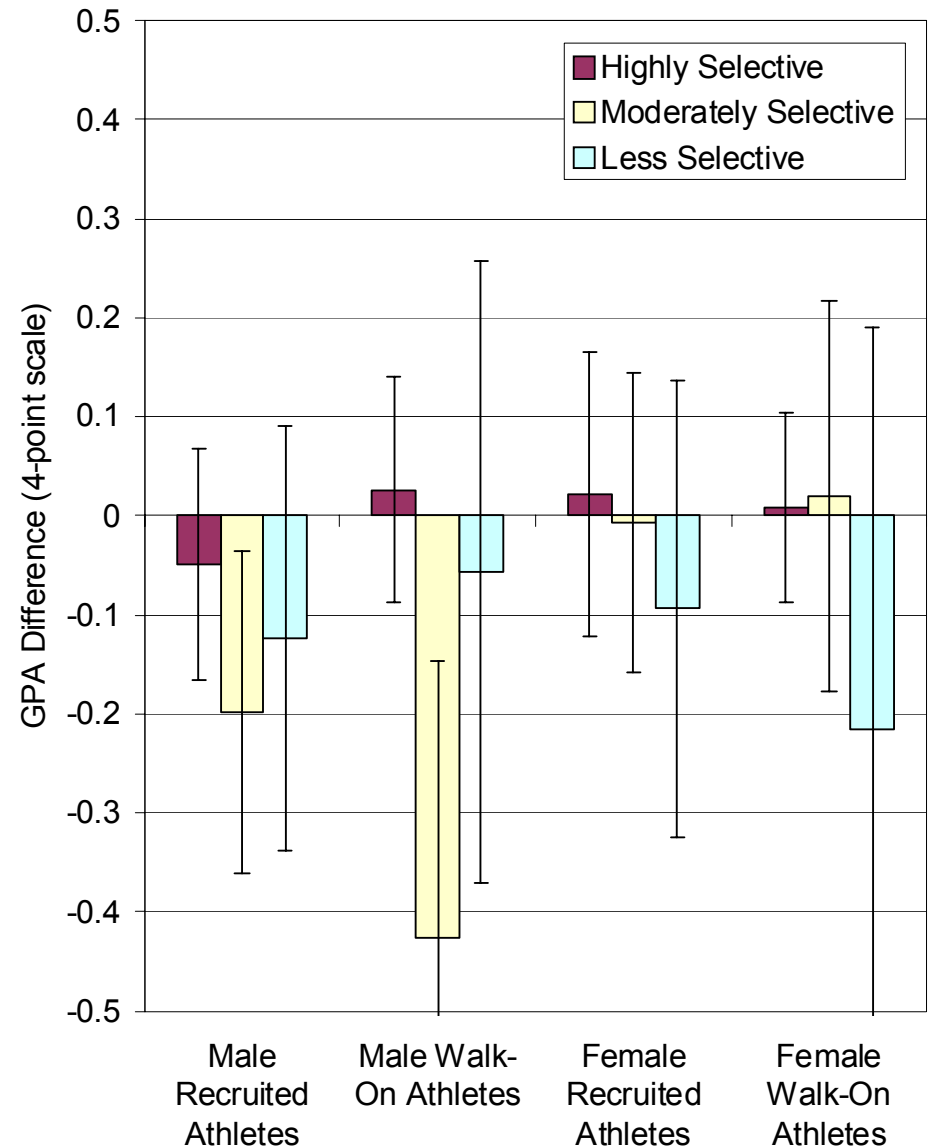
# GPA Differences by Selectivity: Black Athletes

- Highly and moderately selective institutions have large negative GPA differences for males
- Male walk-on athletes have positive GPA difference at less selective institutions
- No statistically significant GPA differences for female athletes



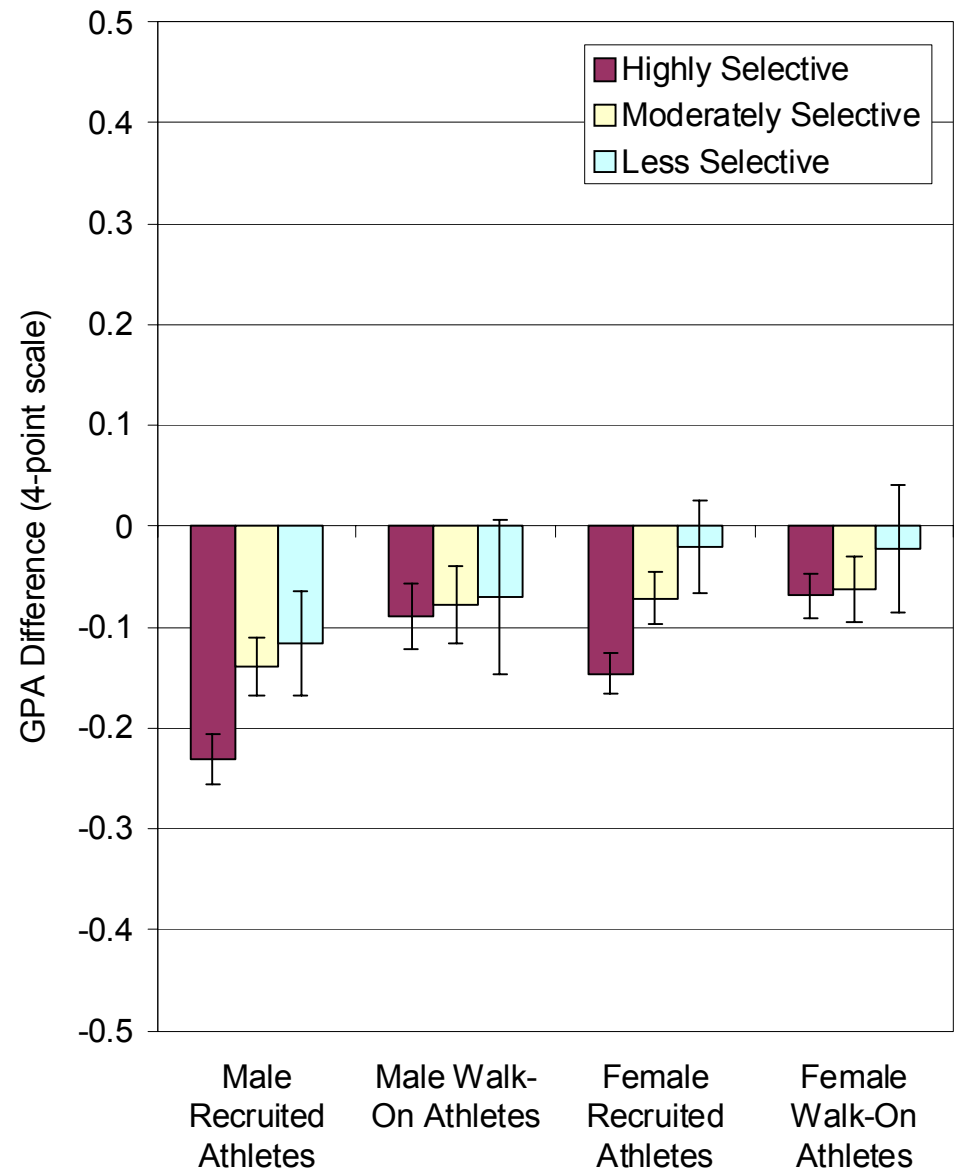
# GPA Differences by Selectivity: Hispanic Athletes

- Female athletes have GPAs similar to non-athletes
- Male athletes, especially walk-on athletes have large negative GPA differences at moderately selective institutions
- Moderately selective institutions have statistically significant differences for men



# GPA Differences by Selectivity: White Athletes

- GPA differences are largest at highly selective institutions and smallest at less selective institutions
- Negative GPA differences are statistically significant for all athletes in highly and moderately selective institutions





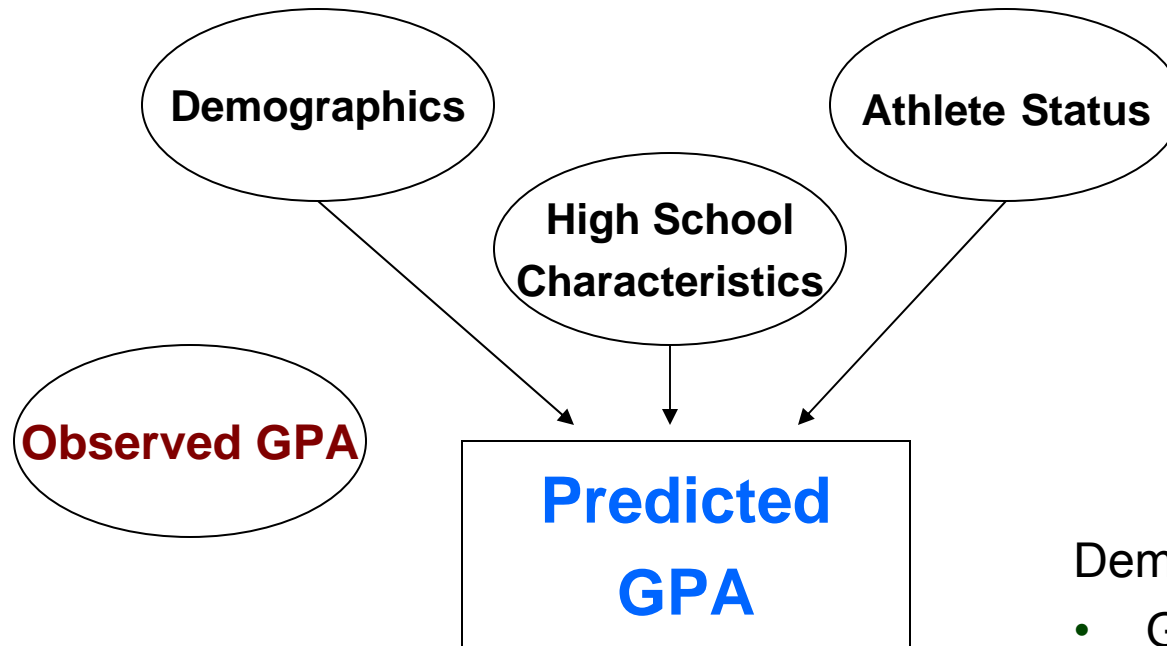
# GPA Differences by Race and Selectivity

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- Black athletes: for men, the largest negative differences in GPA are at highly and moderately selective institutions
- Hispanic athletes: largest negative differences for men at moderately selective institutions
- White athletes: largest negative differences at highly selective institutions
- GPA differences for female athletes only found for White women at highly and moderately selective institutions

# Reminder about Underperformance

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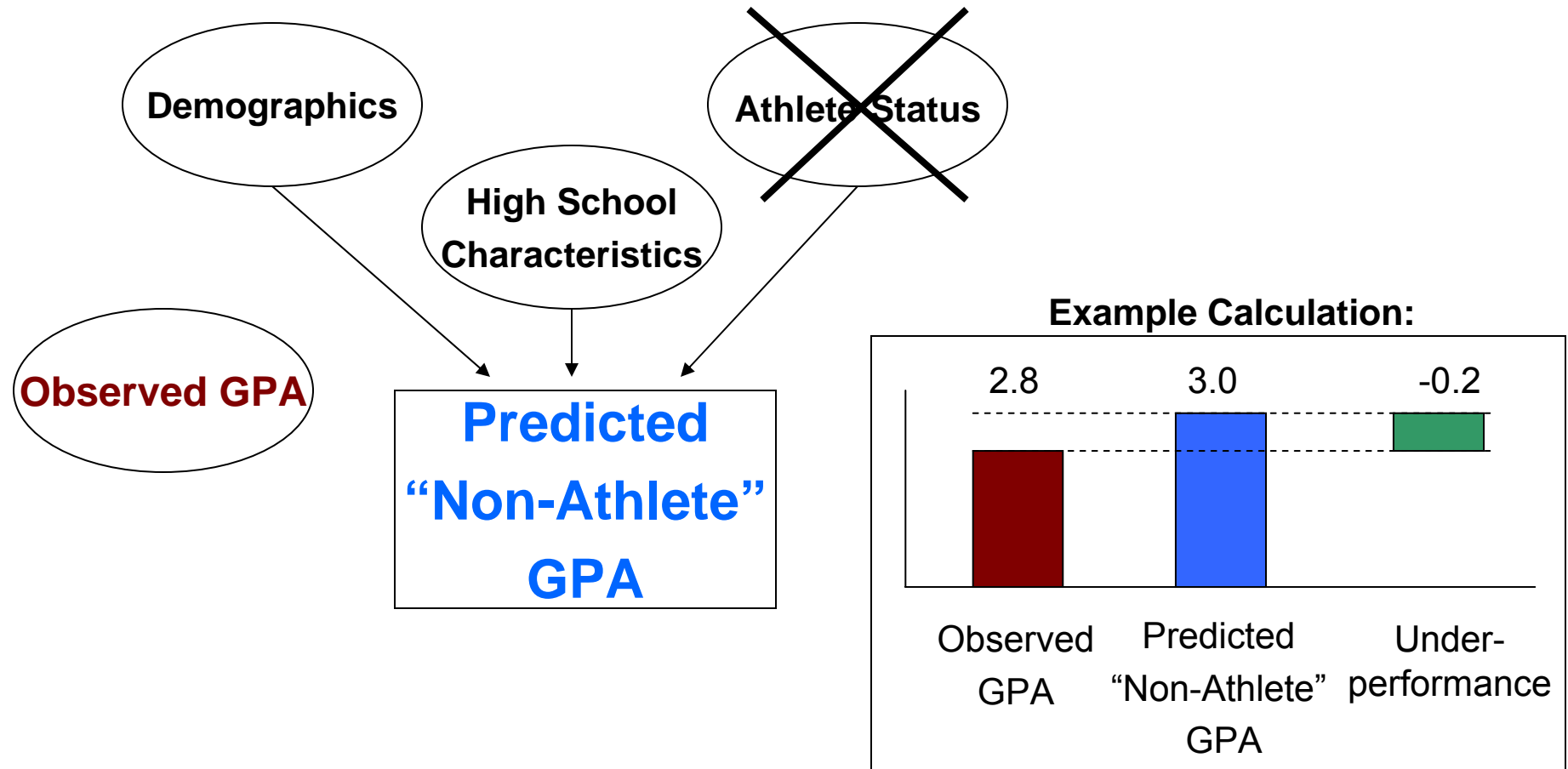
## Demographics:

- Gender
- race/ethnicity
- U.S. citizen

## High School Characteristics:

- Student's SAT score
- High School GPA Rank
- Average SAT of High School

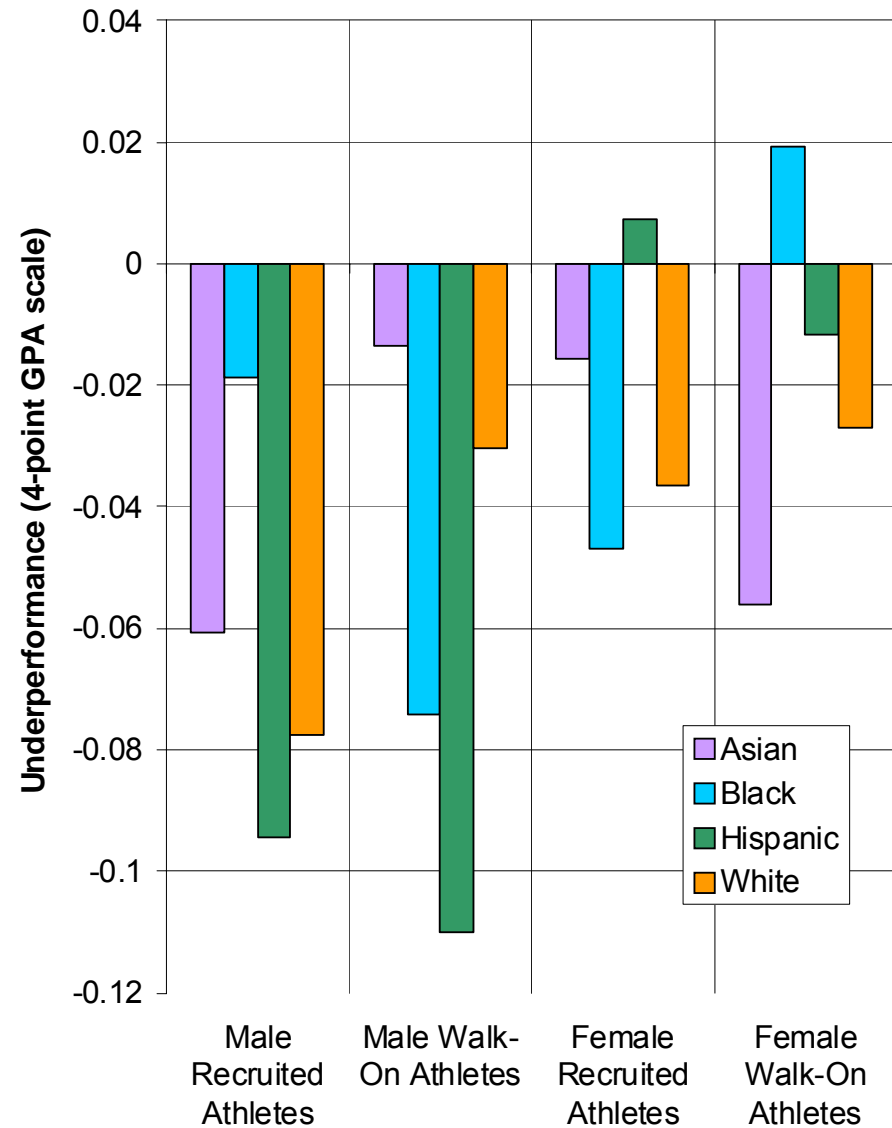
# Reminder about Underperformance



$$\text{Observed GPA} - \text{"Non-Athlete GPA"} = \text{Underperformance}$$

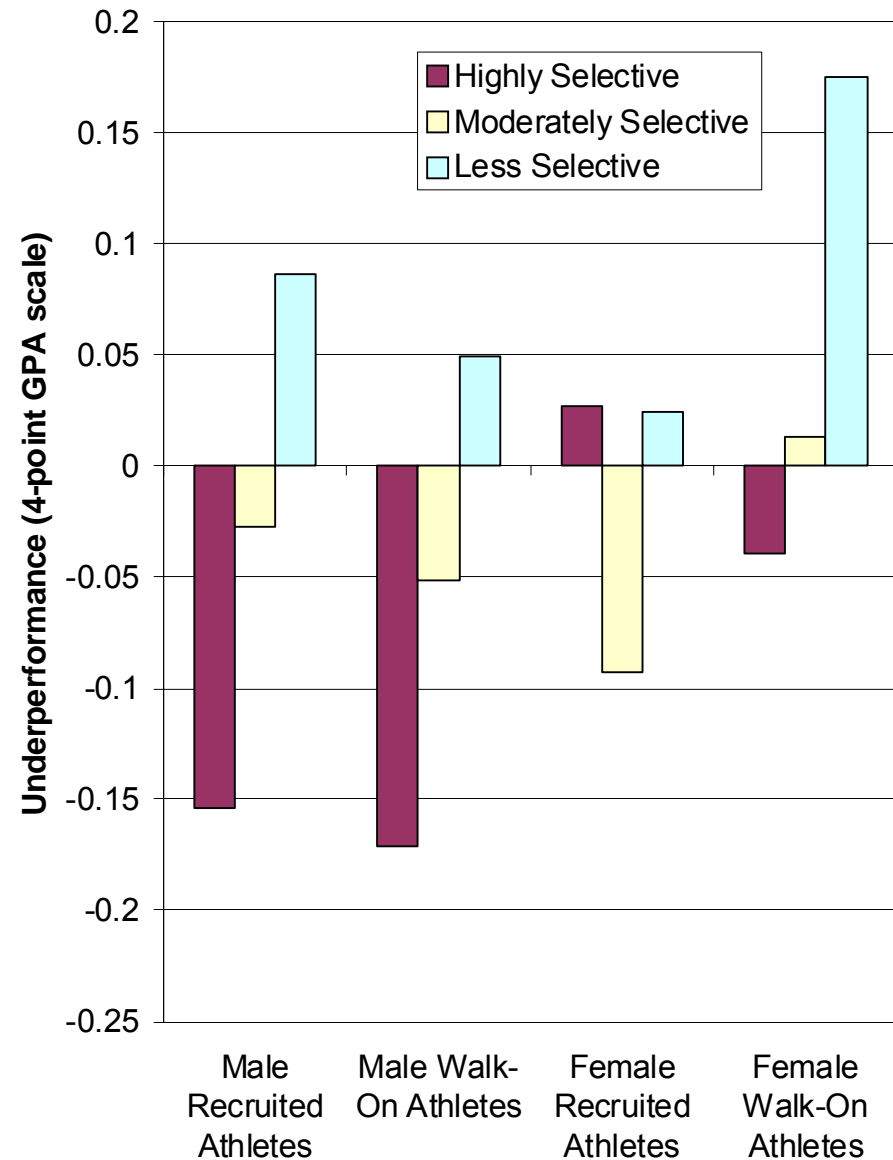
# Underperformance by Race

- Most underperformances are small (< 0.05 points)
- Among male recruited athletes, Hispanic and White students are more likely to underperform
- Female students typically have smaller underperformance than male students
- Black female walk-on players perform better than expected
- Black male recruited athletes have much smaller underperformance than other recruited athletes



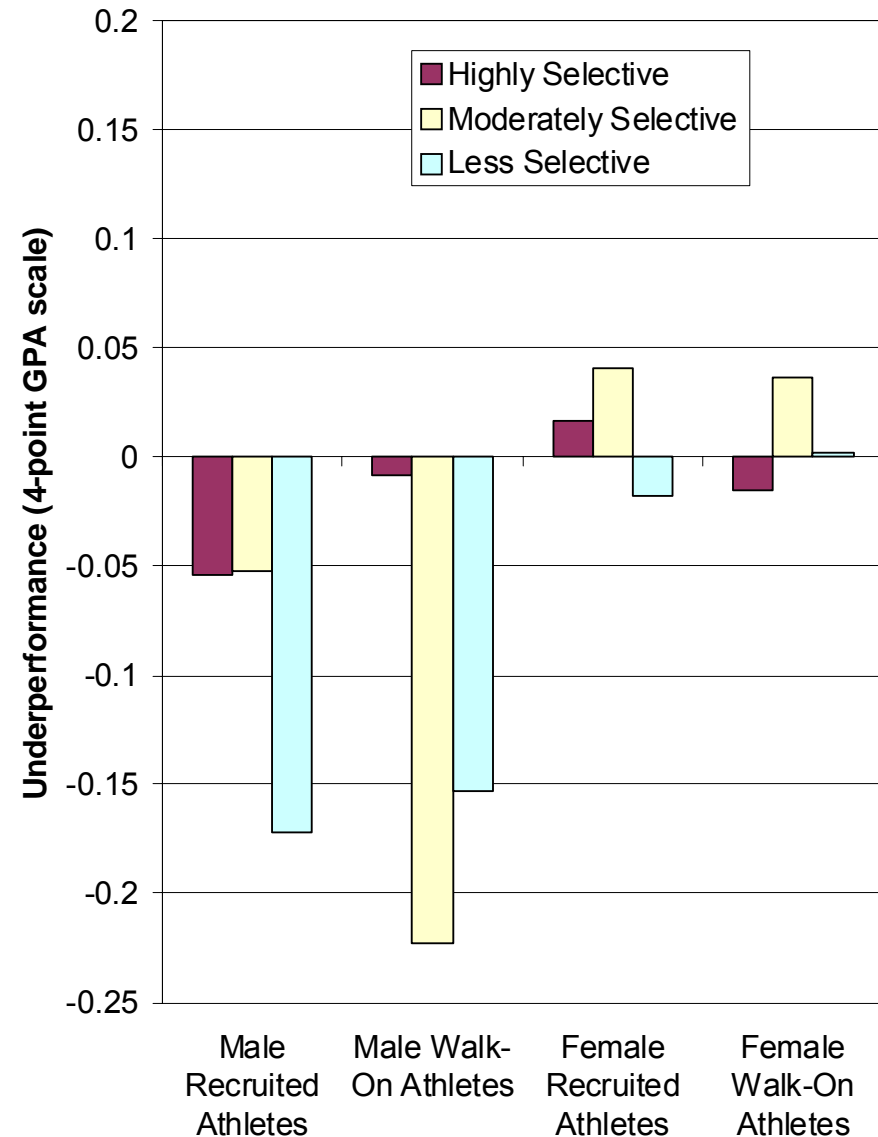
# Underperformance by Selectivity: Black Athletes

- Underperformance is largest for Black men at highly selective institutions
- All Black athlete groups “overperform” at less selective institutions



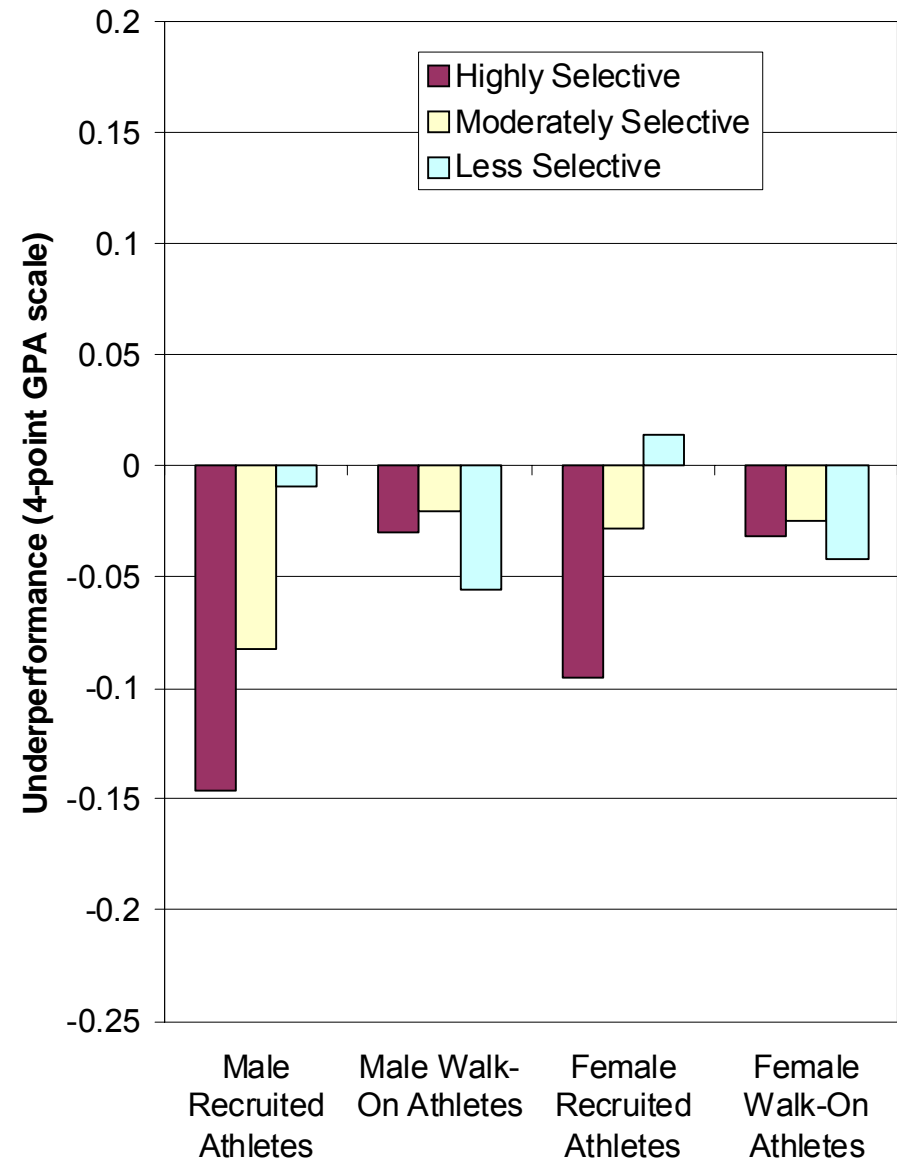
# Underperformance by Selectivity: Hispanic Athletes

- Among Hispanic athletes, underperformance is largest for male walk-on athletes at moderately and less selective institutions and for male recruited athletes at less selective institutions
- Hispanic female athletes overperform slightly at moderately selective institutions
- Hispanic athletes at highly selective institutions have small if any underperformance



# Underperformance by Selectivity: White Athletes

- Among White athletes, underperformance is largest for recruited athletes at highly selective institutions
- White male recruited athletes underperform at highly and moderately selective institutions
- White female recruited athletes at highly selective institutions underperform



# Underperformance by Race and Selectivity

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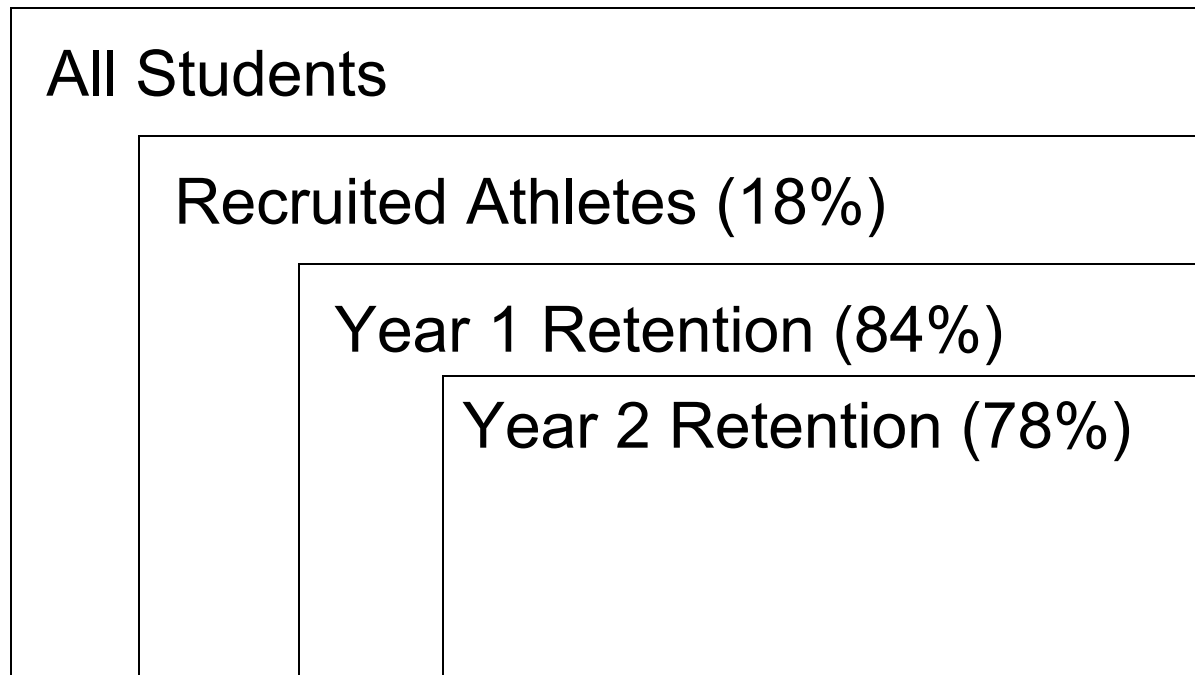
- Black athletes: underperformance is largest for male athletes at highly selective institutions
- Black athletes overperform at less selective institutions
- Hispanic athletes: underperformance is largest for male athletes at less selective institutions, and for male recruited athletes at moderately selective institutions
- White athletes: underperformance is largest for recruited athletes at highly selective institutions and for recruited male athletes at moderately selective institutions



# Reminder about Athletic Retention

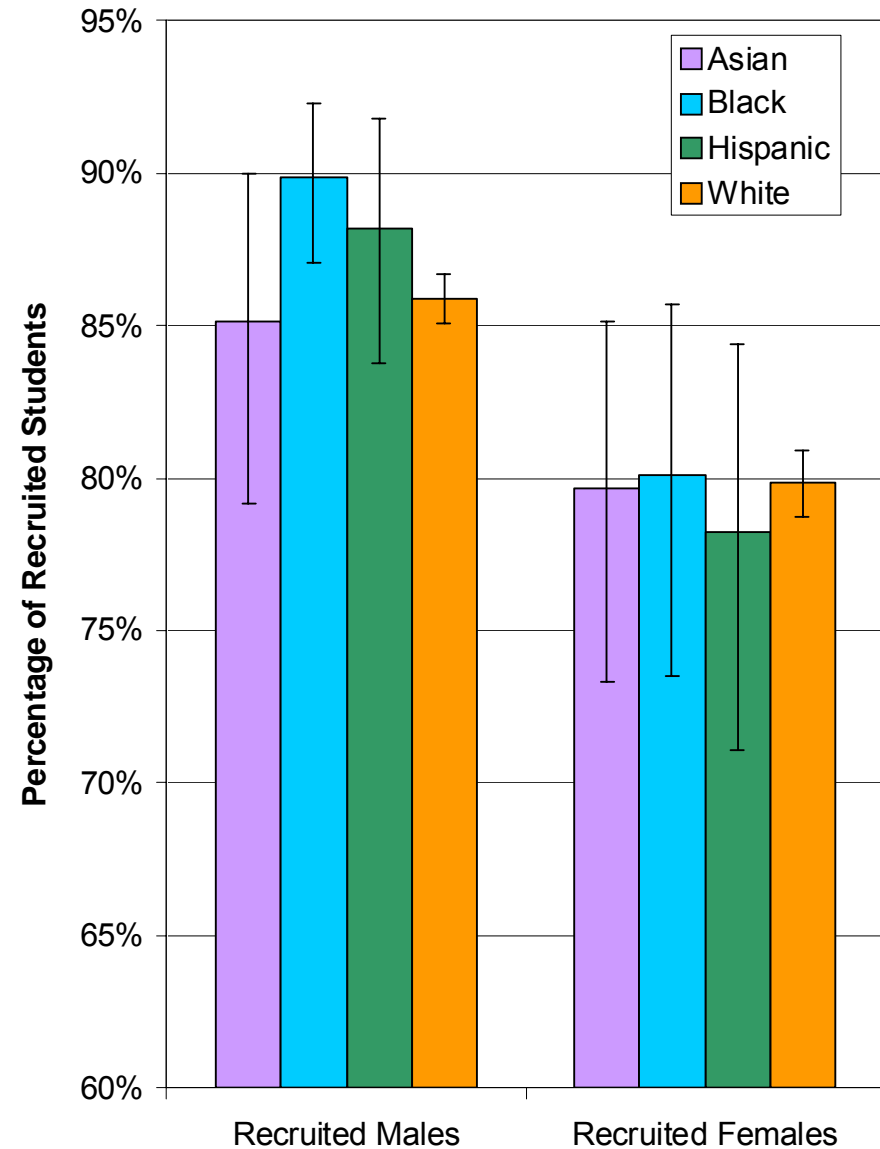
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- **Year 1 Retention:** percentage of recruited students who played the sport for which they were recruited in Year 1
- **Year 2 Retention:** percentage of recruited Year 1 players who also played in Year 2 (sport for which they were recruited)



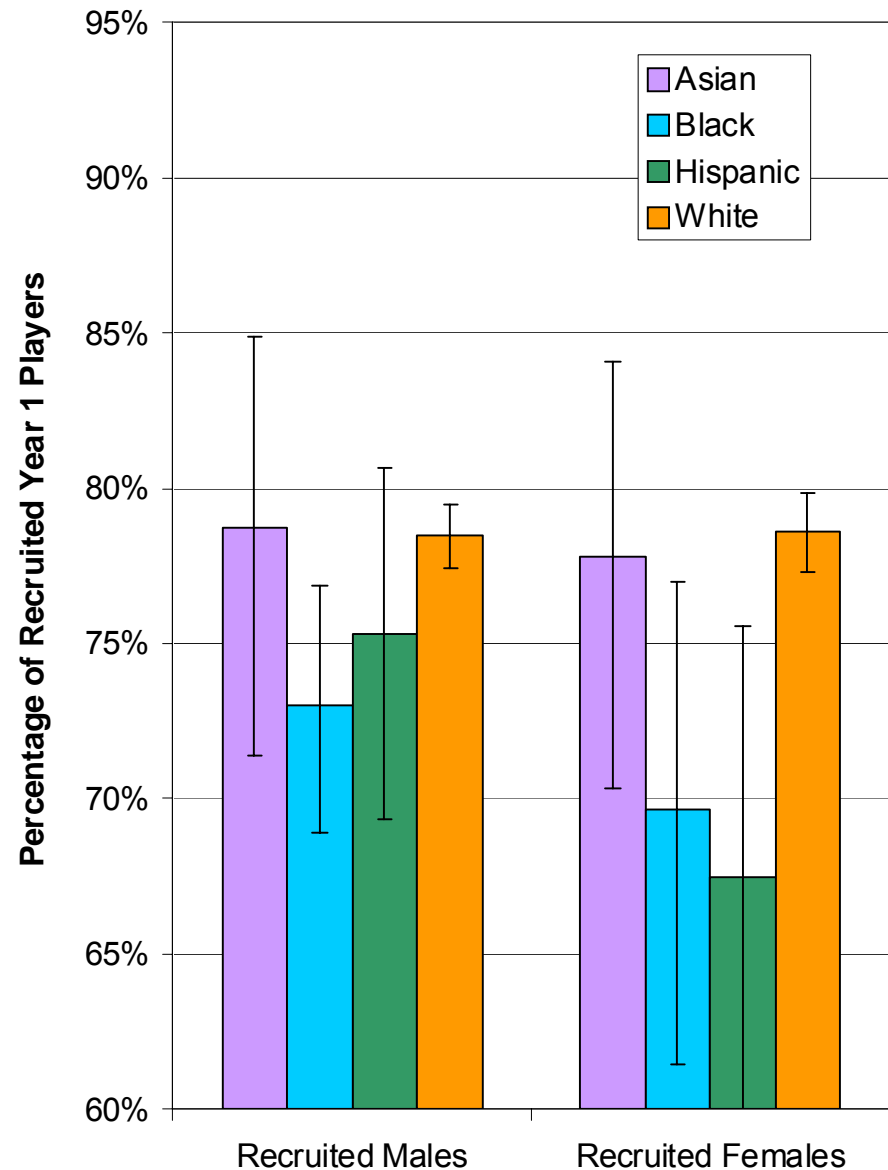
# Year 1 Retention in Recruited Sport

- Male students are generally more likely to play the sport for which they were recruited
- Black men are somewhat more likely to play than White men
- Hispanic women are somewhat less likely to play than White women
- Because of the small sample sizes, the racial differences are typically not statistically significant



# Year 2 Retention in Recruited Sport

- Black and Hispanic athletes are somewhat less likely to be retained in their sport than White or Asian athletes
- Asian and white men and women are equally likely to be retained in their sport
- Black and Hispanic women are somewhat less likely to be retained in their sport
- Racial differences are generally not statistically significant because of small sample sizes
- Examination by institutional selectivity level is not possible because of small sample sizes



# Research Findings

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- Generally, there are only small racial differences in the athlete-non-athlete academic performance differences and in athletic retention
- Diversity of athletes is roughly similar to the overall diversity of the student body
  - At highly selective institutions, fraction of athletes who are minorities is somewhat smaller than fraction of students who are minorities
- Male recruited athletes of all races except Asians have lower GPAs than their non-athlete counterparts
  - The negative difference is largest for Black students
- Hispanic athletes tend to have less underperformance than other racial groups
  - The difference is especially noticeable for male recruited athletes
- Among men, a higher fraction of Black students are recruited than of students of other races
- Among women, White students are most likely to be recruited
- There are few significant racial differences in athletic retention

# Main Conclusions

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- Athletic participation and recruitment patterns vary by race and by institutional selectivity.
- Moderately and less selective institutions recruit a higher fraction of Black, Hispanic and White students as athletes than highly selective institutions.
- Hispanic athletes at highly selective institutions have GPAs comparable to their non-athlete counterparts, whereas Black and White athletes at these institutions have lower GPAs than their non-athlete counterparts.
- Highly selective institutions have the largest underperformance for Black and White male athletes, while less selective institutions have largest underperformance for Hispanic male athletes.

# Measuring Academic Outcomes by Recruitment Levels of Sports

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# Philosophy Statement

## Division I:

- Emphasis on regional and national excellence of athletic programs
- Athletic programs have a dual objective: Serve college/university community & general public
- Athletic scholarships awarded
- Finances athletic programs from revenues generated by the program itself, with income producing sports (football & basketball)
- Competitive level of sport programs with extensive varsity opportunities for students

## Division III:

- Emphasis on regional conference championships
- Place importance on impact of athletics on participants & internal constituencies rather than the general public/entertainment
- No athletically-related financial aid
- Sport participation part of an educational experience; athlete to be treated as other members of student body
- Encourage participation in athletics and development of sport opportunities
  - Support ethnic/gender diversity; equal emphasis given to men's and women's sports

# Sport Classification: DI vs. DIII

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## Division I:

### High Profile Sports

- Advanced recruiting mechanisms
- Revenue generating
- Sports scholarships available
- High publicity in media influence

### Findings:

- Athlete recruited for High Profile Sports earn substantially lower GPAs
- Recruited Lower Profile male & female athletes do better, but not as well as the student body
- Recruited athletes exhibit a greater negative academic performance than walk-ons

(Bowen & Levin, 2003)

## Division III:

### Highly Recruited Sports

- Advanced recruiting mechanisms
- High percentage of athletes are recruited for these sports (>65%)
- More visible to athletic staff and college faculty

Findings: Today's Presentation  
(College Sports Project, 2010)



# Sport Categories

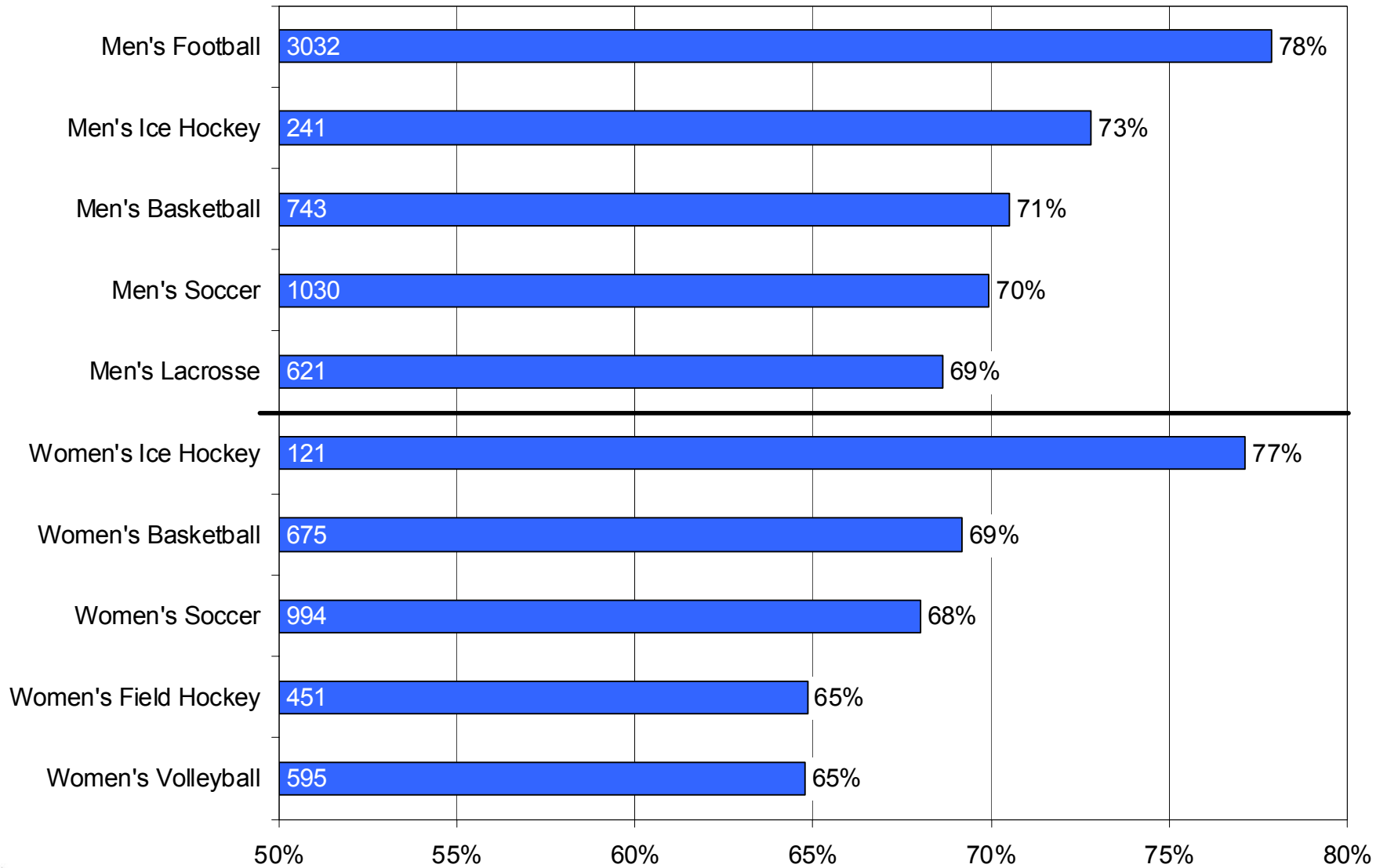
## Methodology

- 2005-06 & 2006-07 Entering Cohort, Year 2 data
- Each Highly Recruited Sport (HRS) category comprised a minimum of 50 recruited athletes\* for that sport per cohort
- $\geq 65\%$  of athletes who played the sport in Year 1 were recruited for that sport

	<b>Men's Sports</b>	<b>Women's Sports</b>
<b>Highly Recruited Sports (HRS)</b>	Basketball	Basketball
	Soccer	Soccer
	Ice Hockey	Ice Hockey
	Football	Field Hockey
	Lacrosse	Volleyball
<b>Examples of Other Sports</b>	Swimming	Swimming
	Track	Track
	Cross Country	Cross Country
	Golf	Crew
	Baseball	Softball

\*Students who are recruited and participate in their recruited sport Year 1

# Highly Recruited Sports



Percentage of Year 1 Players who are Recruited

# CSP: Sample Sizes

- 9% of the students in the dataset are walk-on athletes
- 18% of the students in the dataset recruited athletes
- 56% of the recruited athletes are recruited for a HRS

All Students	Male (35,827)	Female (47,901)	Total (83,728)
Walk-on Athletes*	11% (4,142)	8% (4,218)	9% (8,360)
Recruited Athletes*	24% (8,951)	13% (6,259)	18% (15,210)
Recruited HRS**	63% (5,661)	45% (2,842)	56% (8,503)
Recruited Other**	37% (3,290)	54% (3,397)	44% (6,687)

\*Percentage of walk-on and recruited athletes are measured using all students, by gender, as the denominator

\*\*Percentage of recruited athletes in the HRS and Other sports subsets are measured using recruited athletes, by gender, as the denominator

## Number of Recruited Students by Recruitment Level & Institutional Selectivity

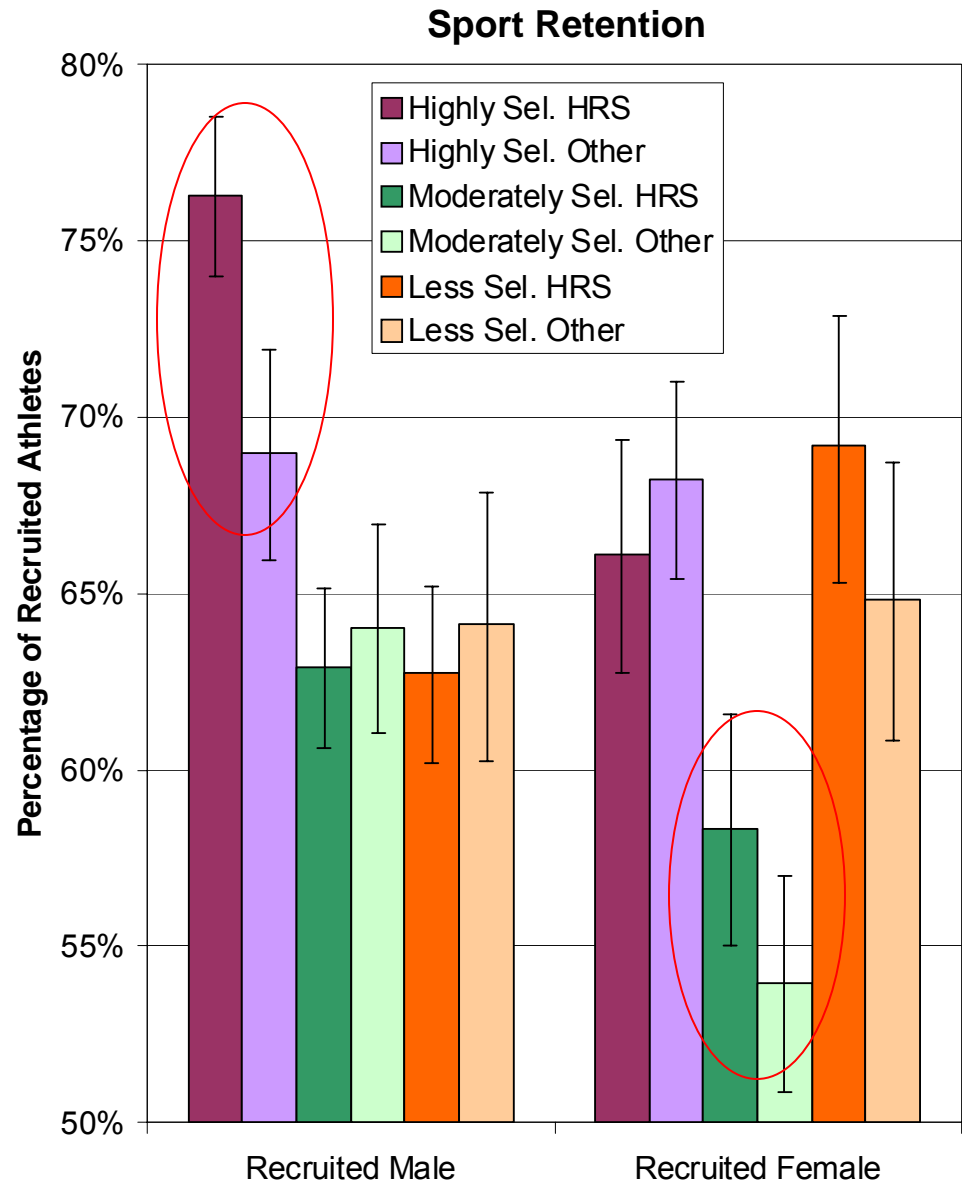
- A slightly larger percentage of male and female athletes are recruited for HRS at less selective institutions than at moderately and highly selective institutions
- Recruitment levels in HRS increases for men from Highly to Less selective institutions, where the differences of recruitment of HRS and Other sports even out for women

	Highly Recruited Sports (HRS)		Other Sports	
Highly Selective Institutions	Male	<b>59%</b> (1,401)	Male	41% (954)
	Female	<b>43%</b> (817)	Female	<b>57%</b> (1,102)
Moderately Selective Institutions	Male	<b>63%</b> (1,782)	Male	37% (1,040)
	Female	<b>46%</b> (888)	Female	<b>54%</b> (1,038)
Less Selective Institutions	Male	<b>70%</b> (1,497)	Male	30% (630)
	Female	<b>51%</b> (597)	Female	<b>49%</b> (583)

# Athletic Retention among Recruited Athletes

## HRS vs. Other Sports by Selectivity

- Retention = Percent of recruited students who played the sport for which they were recruited in Years 1 & 2
- Generally, there is no significant difference in retention by type of sport
  - Exception: male athletes at highly selective institutions
- Male recruited athletes are more likely to be retained in their sport at highly selective institutions
- Female recruited athletes are less likely to be retained in their sport at moderately selective institutions



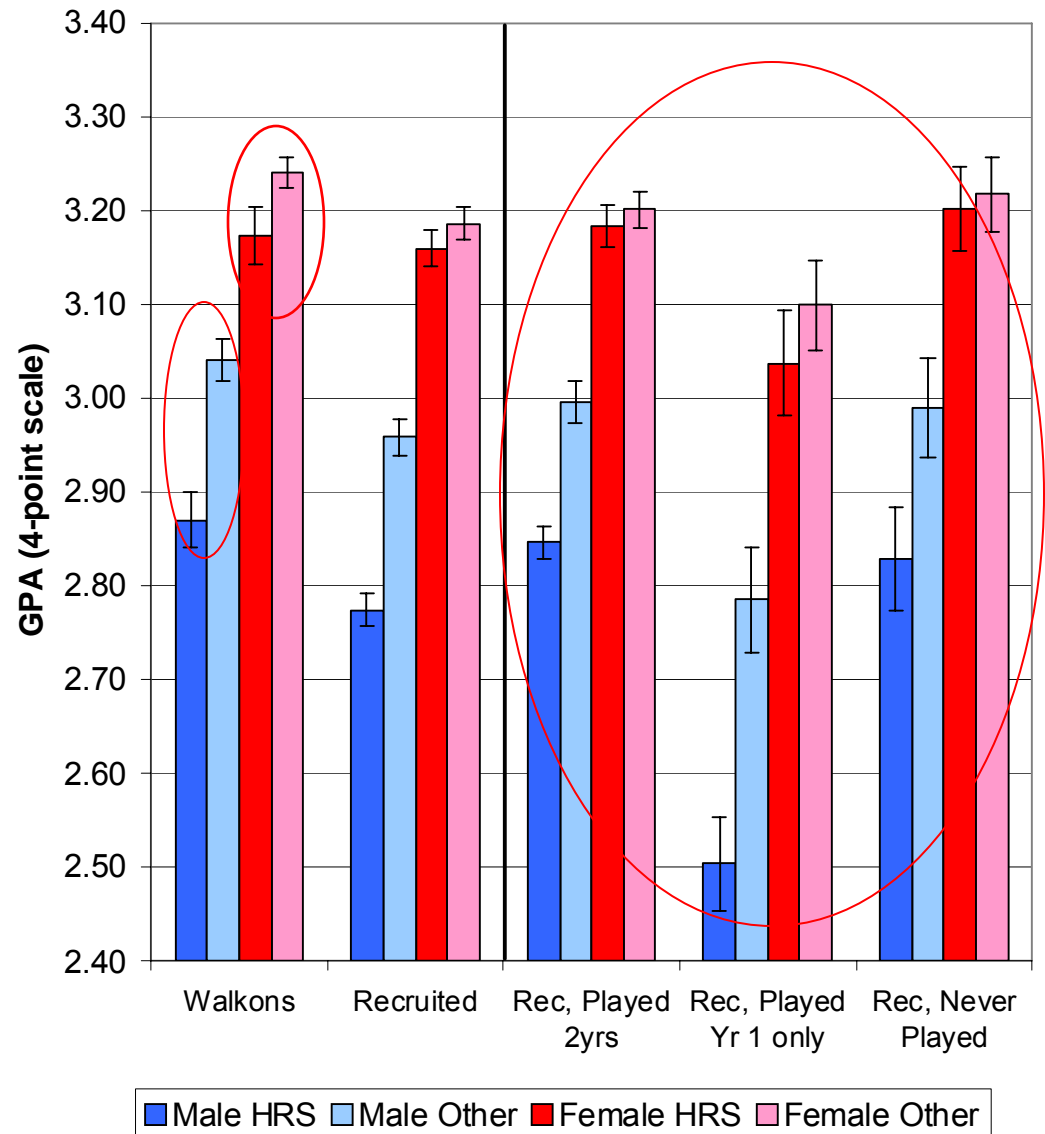
# Conclusions about Athletic Participation

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- Most recruited athletes (85%), both men and women, play the sport they were recruited for during their freshman year at an institution
- About 12% of all students who are recruited to participate in a HRS do not play any sports
- Close to 19% of athletes who are recruited (for a highly recruited sport or other sport) who played in Year 1 do not return to play in Year 2

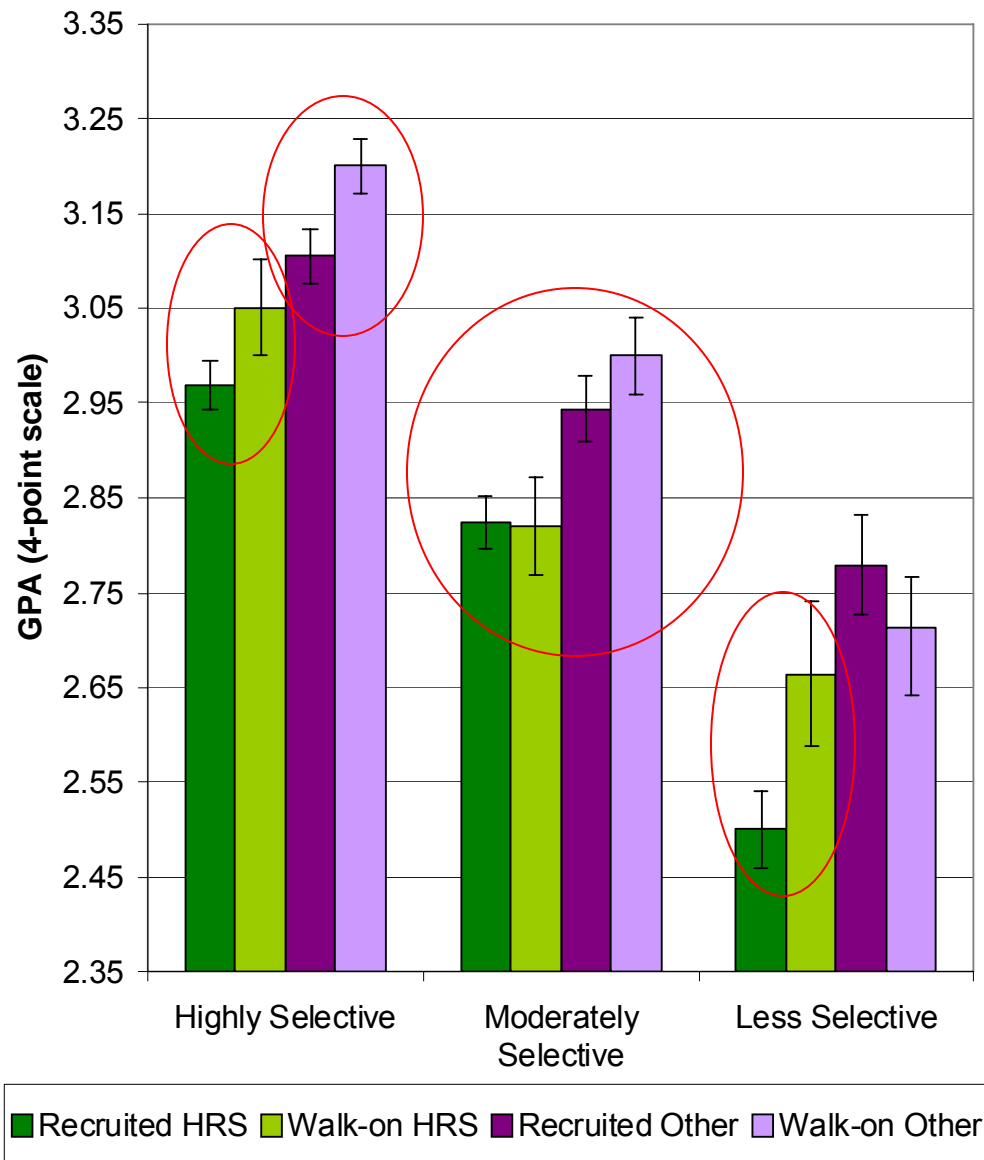
# GPA by Sport Type & Gender

- Men in Other sports have higher GPAs than men in HRS
- Women in HRS and other sports do not have a significant difference in GPA
- Recruited students who never played and those who played for 2 years have higher GPAs than students who played only in their first year



## GPA by Sport Type for Males by Institutional Selectivity

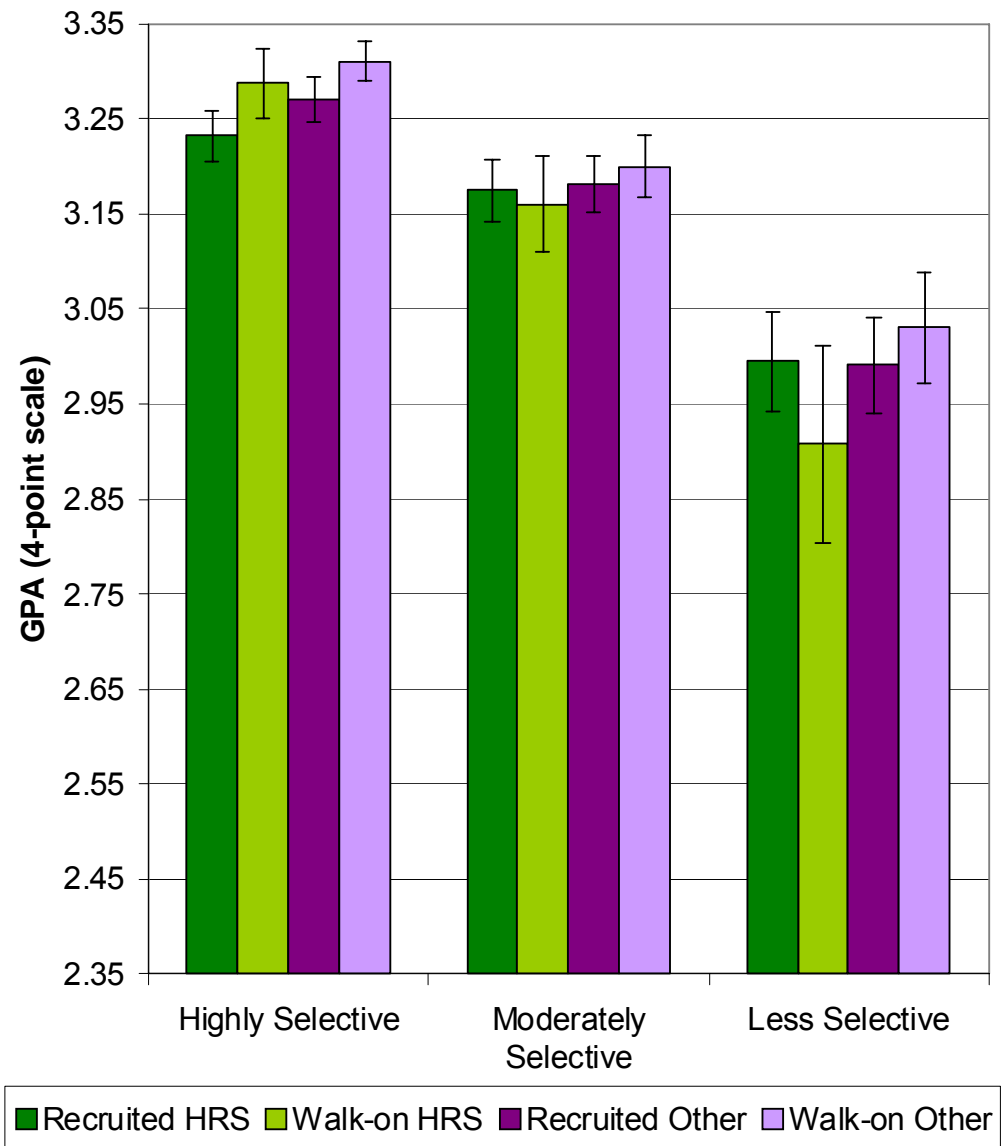
- At highly selective and less selective institutions, recruited students in HRS have significantly lower GPAs than their walk-on counterparts
- At highly selective institutions walk-ons in Other sports have higher GPAs than those recruited for Other sports
- At moderately selective institutions, students in HRS have lower GPAs than those in Other sports (regardless of whether they were recruited)





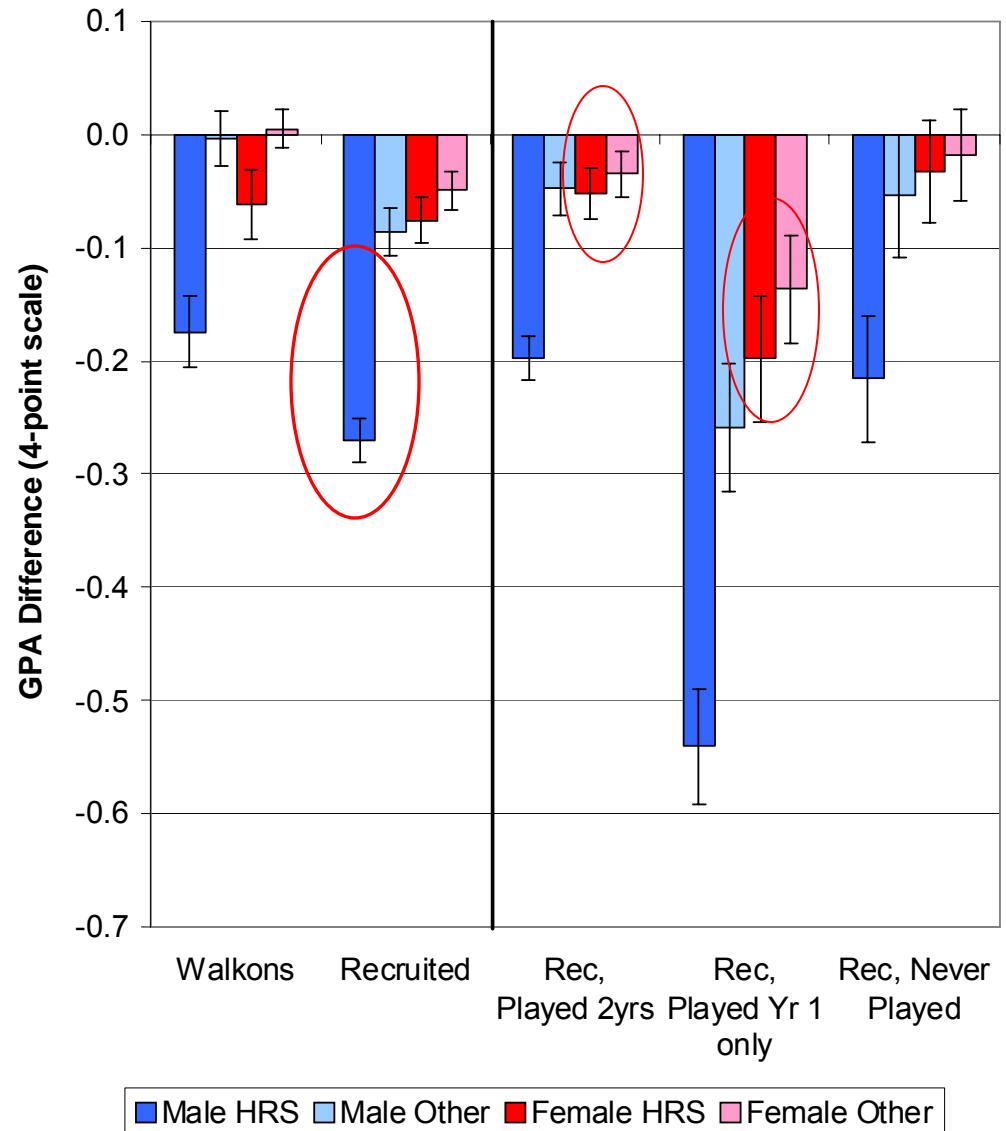
## GPA by Sport Type for Females by Institutional Selectivity

- Female recruits and walk-ons have smaller difference in their GPAs across selectivity levels than their male counterparts
- Females in HRS perform as well academically as their counterparts in Other sports



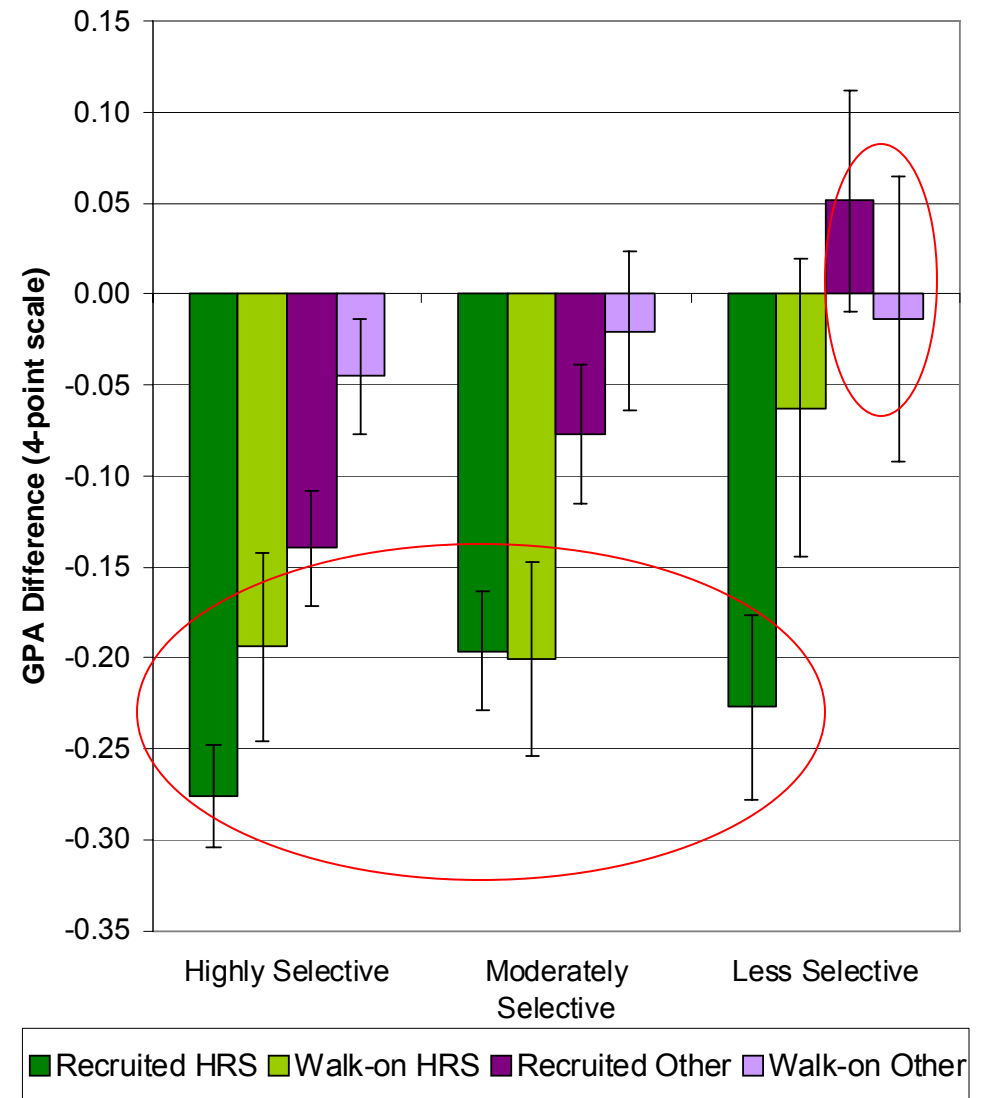
# GPA Difference between Athletes and Non-Athletes by Sport Type & Gender

- Generally, recruited athletes do not perform as well as their non-athlete counterparts
- Male recruited athletes in HRS have significantly lower GPAs than male non-athletes
- Female recruited athletes who played a sport they were recruited for have lower GPAs than non-athletes
  - Differences for women are typically small



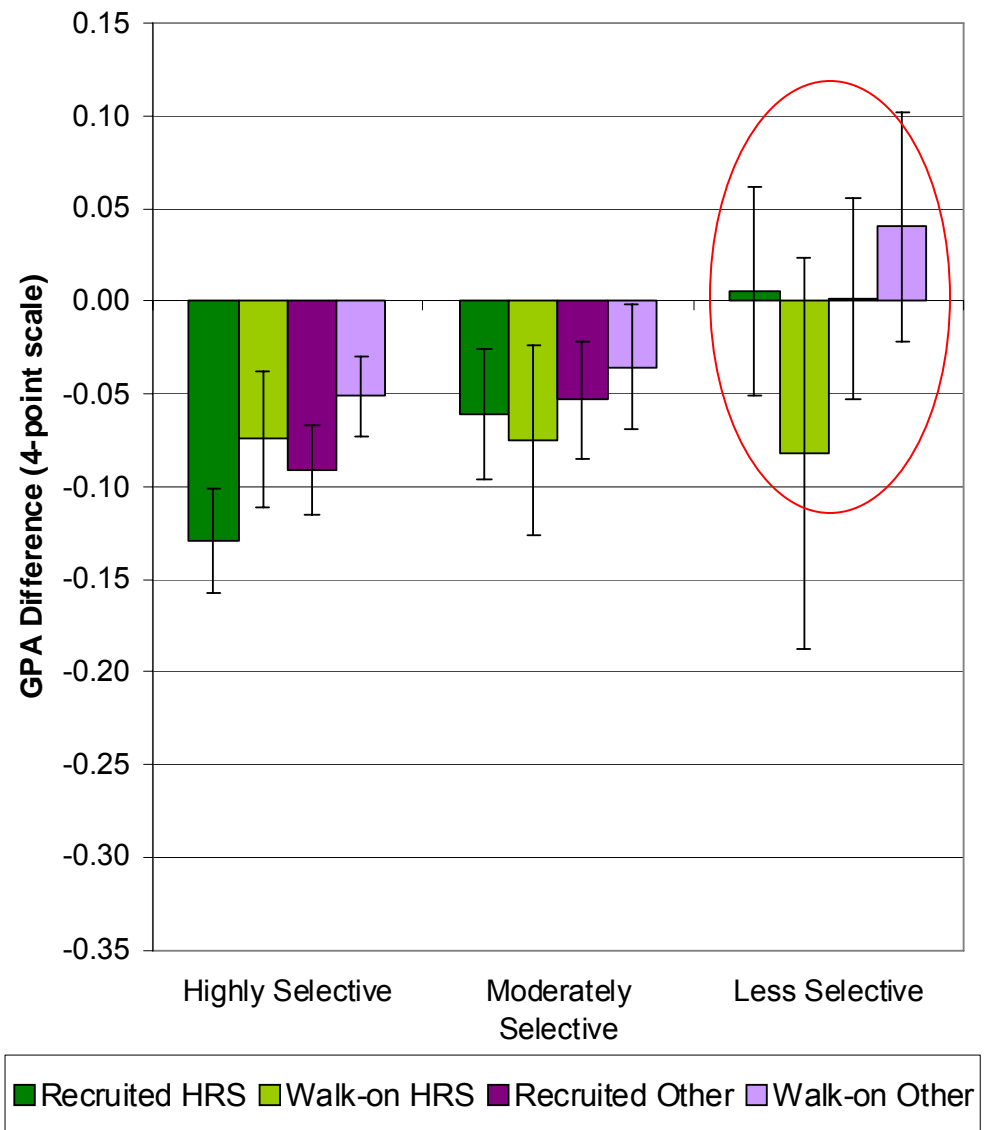
# GPA Difference between Athletes and Non-Athletes Male Athletes, by Institutional Selectivity

- Men in HRS have lower GPAs than male non-athletes
  - Exception: walk-ons at less selective institutions
- At less selective institutions, men in Other sport types have GPAs similar to male non-athletes



# GPA Difference between Athletes and Non-Athletes Female Athletes, by Institutional Selectivity

- At less selective institutions, female athletes in HRS & Other sports do as well as non-athletes, academically
- At highly and moderately selective institutions, females in both sport types do not perform as well as non-athletes
- Athlete and non-athlete differences for women are generally small



# Conclusions about Academic Performance

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- There is a larger difference in academic performance by sport type for men than for women
- Students who are recruited for a Highly Recruited Sport (HRS) tend to have lower GPA's than students who are recruited for Other sports (a finding that mirrors previous DI research)
- Students who are recruited for a HRS and play that sport for 2 years have a significantly higher average GPA than students who are recruited for a HRS and play that sport for 1 year
  - o Similar but less drastic differences are seen in Other sports

# Glossary

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- Highly Selective Institutions: Average SAT of incoming students > 1250, Baccalaureate institution
- Moderately Selective Institutions: Average SAT of incoming students 1150-1250, Baccalaureate institution
- Less Selective Institutions: Average SAT of incoming students < 1150, Baccalaureate institution
- Athlete: A student who at some point in his/her college career participated in a sport
- Walk-on athlete: Student who is not a recruited athlete but participates in sports
- Highly Recruited Sport (HRS):
  - Each Highly Recruited Sport (HRS) category comprised a minimum of 50 athletes recruited for that sport per cohort
  - ≥ 65% of athletes who played the sport in Year 1 were recruited for that sport
- Other Sport: Sports that are not classified as Highly Recruited Sports
- Recruited athlete: Student was recruited to participate in a HRS or Other sport prior to his/her matriculation at an institution
  - Recruited, Played Year 1 Only: Student was recruited and played in the sport for which s/he was recruited during Year 1
  - Recruited, Played Years 1 & 2: Student was recruited and participated in the sport for which s/he recruited in Years 1 and 2 (during the freshman and sophomore years)
  - Recruited, No Play: Student was recruited, but did not participate in the sport for which they were recruited

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