## Research

Estimated Probability of Competing in College Athletics

|  | Participants at US High Schools | NCAA <br> Participants | Overall \% HS to NCAA | \% HS to NCAA Division I | \% HS to NCAA Division II | \% HS to NCAA Division III |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Men |  |  |  |  |  |  |
| Baseball | 488,815 | 34,554 | 7.1\% | 2.1\% | 2.2\% | 2.8\% |
| Basketball | 546,428 | 18,684 | 3.4\% | 1.0\% | 1.0\% | 1.4\% |
| Cross Country | 257,691 | 14,412 | 5.6\% | 1.9\% | 1.4\% | 2.3\% |
| Football | 1,083,308 | 73,660 | 6.8\% | 2.6\% | 1.8\% | 2.4\% |
| Golf | 146,677 | 8,676 | 5.9\% | 2.0\% | 1.7\% | 2.2\% |
| Ice Hockey | 35,155 | 4,102 | 11.7\% | 4.6\% | 0.5\% | 6.5\% |
| Lacrosse | 109,522 | 13,446 | 12.3\% | 2.9\% | 2.3\% | 7.1\% |
| Soccer | 440,322 | 24,803 | 5.6\% | 1.3\% | 1.5\% | 2.8\% |
| Swimming | 133,470 | 9,455 | 7.1\% | 2.8\% | 1.1\% | 3.2\% |
| Tennis | 157,201 | 8,092 | 5.1\% | 1.7\% | 1.1\% | 2.4\% |
| Track \& Field | 591,133 | 28,334 | 4.8\% | 1.9\% | 1.2\% | 1.7\% |
| Volleyball | 55,417 | 1,899 | 3.4\% | 0.7\% | 0.8\% | 1.9\% |
| Water Polo | 21,857 | 1,014 | 4.6\% | 2.6\% | 0.7\% | 1.3\% |
| Wrestling | 250,653 | 7,075 | 2.8\% | 1.0\% | 0.8\% | 1.0\% |
| Women |  |  |  |  |  |  |
| Basketball | 429,380 | 16,593 | 3.9\% | 1.2\% | 1.1\% | 1.6\% |
| Cross Country | 222,516 | 15,958 | 7.2\% | 2.7\% | 1.8\% | 2.7\% |
| Field Hockey | 59,793 | 6,032 | 10.1\% | 3.0\% | 1.2\% | 5.8\% |
| Golf | 74,762 | 5,293 | 7.1\% | 2.9\% | 2.1\% | 2.1\% |
| Ice Hockey | 9,514 | 2,289 | 24.1\% | 9.0\% | 1.0\% | 14.0\% |
| Lacrosse | 88,050 | 11,375 | 12.9\% | 3.8\% | 2.6\% | 6.5\% |
| Soccer | 381,529 | 27,358 | 7.2\% | 2.4\% | 1.9\% | 2.9\% |
| Softball | 366,685 | 19,680 | 5.4\% | 1.6\% | 1.6\% | 2.1\% |
| Swimming | 166,747 | 12,356 | 7.4\% | 3.3\% | 1.1\% | 3.0\% |
| Tennis | 183,800 | 8,933 | 4.9\% | 1.6\% | 1.1\% | 2.2\% |
| Track \& Field | 485,969 | 29,048 | 6.0\% | 2.7\% | 1.5\% | 1.8\% |
| Volleyball | 436,309 | 17,119 | 3.9\% | 1.2\% | 1.1\% | 1.6\% |
| Water Polo | 20,230 | 1,136 | 5.6\% | 3.3\% | 1.0\% | 1.3\% |

Sources: High school figures from the 2015-16 High School Athletics Participation Survey conducted by the National Federation of State High School Associations; data from club teams not included. College numbers from the NCAA 2015-16 Sports Sponsorship and Participation Rates Report.

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## Estimated Probability of Competing in College Athletics

## Methodology and Notes

High school to NCAA

- High school figures come from the 2015-16 High School Athletics Participation Survey conducted by the National Federation of State High School Associations. College numbers are from the NCAA's 2015-16 Sports Sponsorship and Participation Rates Report. These college numbers account for participation in college athletics at NCAA-member schools only.
- High school-to-NCAA percentages were calculated by dividing the number of NCAA participants in 2015-16 by the number of HS participants in that same year. This assumes that high school and college rosters are turning over at roughly the same rate (e.g., both HS and college participation numbers include four classes of students and both sets of teams turn over roughly one-quarter of their rosters each year). In prior versions of this table, more complex calculations were used to estimate the number of HS departures and open college roster slots each year; however, these more involved calculations did not lead to substantially different percentages than the simple calculation used currently. Given several potential confounds (e.g., multi-sport participation in high school, frequency of redshirt in NCAA Division I football that would lead to a 5 -year rather than 4 -year college track), these calculations should be considered approximations and not exact accounting.
- The high school-to-NCAA divisional percentages were calculated by dividing the number of 2015-16 participants within each NCAA division by the total number of HS participants. For example, we estimate that approximately $3.4 \%$ of HS boys basketball participants go on to play at an NCAA school (Divisions I, II or III), but only $1.0 \%$ of HS participants do so at the Division I level.
- As the high school figures account only for participants on high school teams and not those competing exclusively on club teams or similar, the true pre-college to NCAA percentages could be lower in some sports (e.g., ice hockey, tennis). Data for several sports (e.g., rowing, skiing, gymnastics) are not shown due to the low number of high school programs in those sports relative to non-scholastic precollege participation opportunities.


## Estimated Probability of Competing in Professional Athletics

|  | NCAA <br> Participants | Approximate \# <br> Draft Eligible | \# Draft <br> Picks | \# NCAA <br> Drafted | \% NCAA to <br> Major Pro* | \% NCAA <br> to Total <br> Pro^ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Baseball | 34,554 | 7,679 | 1,206 | 695 | $\mathbf{9 . 1 \%}$ | -- |
| M Basketball | 18,684 | 4,152 | 60 | 44 | $\mathbf{1 . 1 \%}$ | $19.1 \%$ |
| W Basketball | 16,593 | 3,687 | 36 | 35 | $\mathbf{0 . 9 \%}$ | $4.9 \%$ |
| Football | 73,660 | 16,369 | 253 | 251 | $\mathbf{1 . 5 \%}$ | $1.9 \%$ |
| M Ice Hockey | 4,102 | 912 | 211 | 51 | $\mathbf{5 . 6 \%}$ | -- |
| M Soccer | 24,803 | 5,512 | 81 | 75 | $\mathbf{1 . 4 \%}$ | -- |

* Percent NCAA to Major Pro figures are based on the number of draft picks made in the NFL, NBA, WNBA, MLB, NHL and MLS drafts only. See methods notes for important details on the definition of NHL draftee in men's ice hockey. Column percentages were calculated as (\#NCAA Drafted) / (Approximate \# Draft Eligible).
${ }^{\wedge}$ Percent NCAA to Total Pro takes the number of pro opportunities from the "\% NCAA to Major Pro" calculation and adds in some additional professional opportunities that we were able to quantify. So, for football, this calculation includes NFL, Canadian Football League and Arena League slots available to firstyear professionals. For men's basketball we accounted for NBA, NBA D-League and international opportunities. For women's basketball, we assessed WNBA and international roster slots. See methods notes for details on these calculations. Data on full-time international professional opportunities available in baseball, men's ice hockey and men's soccer were not analyzed here.


# Estimated Probability of Competing in Professional Athletics 

## Methodology and Notes

## General

- College participation numbers are from the NCAA's 2015-16 Sports Sponsorship and Participation Rates Report. These college numbers account for participation in college athletics at NCAA-member schools only.
- To estimate the number of NCAA student-athletes in a sport eligible for a particular year's professional draft, the total number of NCAA student-athlete participants in the sport was divided by 4.5. This figure was used to provide a general estimate of the number of student-athletes in a draft cohort (single draft class) in a given year, accounting for redshirting, degree completion delays due to transfer, etc. that extend the average time to graduation to just beyond four year in all sports. In other words, we observe a year-to-year departure rate (whether due to graduation, dropout or departure for a professional sports opportunity) of just below one-quarter of the total number of student-athletes in each sport. Because the sports examined (M/W basketball, football, baseball, men's ice hockey and men's soccer) have dramatically different rules for draft eligibility, these calculations should be treated as estimates only.
- Data on available professional opportunities are described below for each sport.


## Baseball

- MLB draft data from 2016. There were 1,206 draft picks in that year; 695 of those picked were from NCAA schools (source: MLB Draft Tracker 2016). Of the 695, Division I student-athletes comprised 595 of those chosen, Division II provided 80 and Division III had 20.
- Percent NCAA to Pro calculated as number of NCAA student-athletes taken in the draft ( $\mathrm{n}=695$ ) divided by the approximate number draft eligible. Not all of the student-athletes drafted go on to play professional baseball and many draftees fail to reach the Major League.


## Men's basketball

- NBA draft data from 2016. There were 60 draft slots in that year, but only 44 went to NCAA players (others chosen were international players not attending U.S. colleges). Percentage NCAA to Major Pro calculated using the 44 NCAA selections. Since 2006, 12 international players have been drafted on average each year.
- On 2016-17 opening day NBA rosters, former NCAA players filled $80 \%$ of roster spots (all were from Division I schools). (Source: Jim Sukup, College Basketball News).
- Data on other professional opportunities in men's basketball were collected by NCAA staff with the assistance of Marek Wojtera from eurobasket.com. Tracking 2016-17 international opportunities for the 2016 draft cohort, it was determined that an additional 751 former NCAA student-athletes played internationally, in the NBA D-League, or in the NBA as undrafted players ( 535 from Division I, 181 from Division II and 35 from Division III) after leaving college; this includes international players who attended NCAA institutions (previous versions of this document did not include these players). These numbers were combined with the NBA draftees to calculate an approximate NCAA to Total Professional opportunities figure (calculated as [44 + 751] / 4,152 = 19\%).
- We estimate that $3.6 \%$ of draft-eligible Division I players were chosen in the 2016 NBA draft (44 / 1,216 ). However, in total, $48 \%$ of draft-eligible Division I players competed professionally (NBA, DLeague, or internationally) in their first year after leaving college (calculated as [44 + 535] / 1,216). Approximately $14 \%$ of draft-eligible players from the five Division I conferences with autonomous governance (ACC, Big Ten, Big 12, Pac-12 and SEC) were drafted by the NBA in 2016 (32 / 225), while $74 \%$ played professionally somewhere in their first year post-college (calculated as [32 + 134]/ 225).


## Women's basketball

- WNBA draft data from 2016. There were 36 draft slots in that year's draft, 35 of which went to NCAA players (other selection was an international player not attending a U.S. college). All 35 NCAA selections came from Division I colleges. Percentage NCAA to Major Pro calculated using the 35 NCAA selections.
- Data on international professional opportunities in women's basketball were collected by NCAA staff with the assistance of Marek Wojtera from eurobasket.com, and are limited to the 2016 draft cohort. It was determined that an additional 146 former NCAA student-athletes from the cohort played internationally in 2016-17 (131 from Division I, 14 from Division II and 1 from Division III). These numbers were combined with the WNBA draftees to calculate an approximate NCAA to Total Professional opportunities figure (calculated as [35 + 146] / 3,687 = 4.9\%).
- We estimate that $3.2 \%$ of draft-eligible Division I players were chosen in the 2016 WNBA draft (35 / 1,110 ). However, in total, $15 \%$ of draft-eligible Division I players competed professionally (WNBA or internationally) in their first year after leaving college (calculated as [35 + 131] / 1,110). Approximately $12 \%$ of draft-eligible players from the five Division I conferences with autonomous governance (ACC, Big Ten, Big 12, Pac-12 and SEC) were drafted by the WNBA in 2015 (24 / 203), while $28 \%$ played professionally somewhere in their first year post-college (calculated as [24 + 33] / 203).


## Football

- NFL draft data from 2016. There were 253 draft picks in that year's draft, 251 of whom were former NCAA players. NCAA to Major Pro figure calculated using these data.
- NCAA divisional breakdown of the 251 NCAA players selected in the 2016 NFL draft: Division I FBS (228), Division I FCS (20), Division II (3). The five football conferences with autonomous governance accounted for 189 of the 251 NCAA draft picks (SEC=51, Big Ten=47, ACC=33 [includes Notre Dame], Pac-12=32, Big 12=26).
- Data on Arena League and Canadian Football League opportunities were collected by NCAA staff via rosters on each organization's website (sources: cfl.ca and arenafootball.com) in March 2017. Due to the timing of each league's season, the 2015 draft cohort was used to estimate unique playing opportunities in the Arena League, while the 2016 draft cohort was used to track CFL rookies. It was determined that an additional 57 former NCAA student-athletes from those draft cohorts were listed on a roster ( 28 in the CFL, 29 in the Arena League). Across these two leagues, there were 29 former

Division I FBS players, 14 from Division I FCS, 13 from Division II and 1 from Division III. These numbers were combined with the NFL draftees to calculate an NCAA to Total Professional opportunities proportion (calculated as $[251+57] / 16,369$ ).

- We estimate that $3.9 \%$ of draft-eligible Division I players were chosen in the 2016 NFL draft (248 / 6,307 ). Limiting this calculation to subdivision, $6.7 \%$ of FBS players were estimated to be drafted (228 / 3,404), as compared to $0.7 \%$ of FCS players (20/2,902). Narrowing further to the five Division I conferences with autonomous governance (ACC, Big Ten, Big 12, Pac-12 and SEC), we estimate that $11 \%$ were drafted (189 / 1,747). Accounting for Arena League and CFL opportunities, the NCAA to Total Professional figures are estimated as $4.6 \%$ for Division I ([248 + 43] / 6,307), 7.4\% for FBS ([222 $+29] / 3,404)$ and $12 \%$ for the five autonomous conferences $([189+19] / 1,747)$.


## Men's ice hockey

- NHL draft data from 2015 (source: hockeydb.com). There were 211 draft picks in that year. Only 7 players from NCAA rosters were selected in that draft (all from Division I teams). However, this is not indicative of the likelihood of going from a college team to a professional team due to the nature of the NHL draft, where players are typically selected prior to turning college-aged.
- In examining the subsequent hockey pathways of 2015 draftees (hockeydb.com), it was determined that 51 of the 211 (source: collegehockeyinc.com) attended an NCAA college for any period of time through February 2017. These numbers, although not fully comparable to those used in the other sports examined, were used to calculate an approximate NCAA to Major Pro percentage. Note that only a small subset of players drafted ever play in an NHL game. Undrafted college players may go on to sign contracts with NHL teams after completing college (those numbers are not part of the current NCAA to Major Pro calculation).
- In 2016, 30\% of players on active NHL rosters played college hockey (all in Division I), up from about $20 \%$ in the year 2000 (source: collegehockeyinc.com). $71 \%$ of former college players in the NHL played at least three college seasons, and $36 \%$ played all four. Thanks to Nate Ewell at College Hockey, Inc. for providing these data.


## Men's soccer

- MLS SuperDraft data from 2016. There were 81 draft slots in that year, but only 75 players were selected (all from NCAA schools). Of the 75 picks, 72 were NCAA Division I student-athletes, two were from Division II and one was from Division III. Percentage NCAA to Major Pro calculated using the 75 NCAA selections. (Source: mlssoccer.com).
- These calculations do not account for other domestic (e.g., NASL, USL) or international professional soccer opportunities.

