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| **Brandes Moore, Data Analytics-Cohort 2**  **How likely is it for an NCAA Collegiate athlete to surpass an Olympian?**  A look at NCAA Collegiate Track & Field Champions in comparison to Olympians in the same events | |
| **Executive Summary** | Is it likely that the current collegiate Track & Field Outdoor athlete’s finishing times and distances will surpass the finishing times and distances of the Summer Olympic athletes who compete in the same events?  I’ll be using final times and distances from the 2019 NCAA Division I Outdoor Championships and the 2000-2016 Summer Olympic games. I’m assuming that all the data is available but face a challenge in gathering all of the Olympic data needed due to the wait time in receiving data from the International Olympic Committee. |
| **Motivation** | Based on the collegiate T&F athletes in 2019, I want to know the speed and distance thresholds that the athletes would have to meet to surpass previous Olympic athletes? As a former Track & Field athlete who still attends competitions, I’m amazed at how athletic the current collegiate and Olympian competitors continue to be. I’m someone who has role models that set world records in the 1980s that are still in place in 2020, so I’m curious to see how close the current collegiate athletes and Olympians are to beating those world records. |
| **Data Questions** | Is it likely that the current collegiate Track & Field Outdoor athlete’s finishing times and distances will surpass the finishing times and distances of the Summer Olympic athletes who compete in the same events?  Scope: Individual Events for Men and Women   1. 100M 2. 200M 3. 400M 4. 110M Hurdles (Men’s) 5. 100M Hurdles(Women’s) 6. Shot Put (Appendix) 7. Long Jump (Appendix) 8. Based on the 2019 NCAA T&F Outdoor Championship athletes, would any of the athletes finishing times or distances surpass the Summer 2016 Olympic medalists? 9. Over the past three years (2017-2019), how often was an NCAA record set for these events? 10. Did the NCAA record surpass the previous World Record? 11. How often do younger athletes win over the older athletes in the Summer Olympics?\* 12. How have finishing times changed for the 100m Olympic winner from 2004-2016 to determine the fastest man and woman in the world? 13. How have the finishing times changed for collegiate athletes for the same time period? (Appendix) |
| **Schedule (thru 6/25/20):** | Gather Data: 5/1/2020  Clean & Explore Data: 5/31/2020  Create Presentation: 6/10/2020  **Internal Demos - 6/20/20**  **Demo Day - 6/25/20** |
| **Data Sources** | Estel Hegglin (personal communication, April 24, 2020) discusses 2016 Summer Athletic Olympic results  (# of medaled events) - <https://www.nbcolympics.com/track-and-field/>  (largest single sport) - <https://tokyo2020.org/en/sports/athletics/>  NCAA Division I Championship Results: <https://dt8v5llb2dwhs.cloudfront.net/NCAA/index.htm> |
| **Known Issues & Challenges** | There’s a challenge of obtaining the Olympic data from the International Olympic Committee due to the extended wait time involved from requesting the results information until the time I receive it. That wait time is currently 30-40 days. I’ve currently received the 2016 Summer results but am still waiting to receive the data from the 2000-2012 Olympic games. If I’m unable to receive the other years by June 1, 2020, I will be basing my project around the 2016 Summer Olympic games and the 2019 NCAA Track & Field Championship results.  \*DOB data is readily available for Olympic athletes, however, if I want to compare the ages of NCAA Collegiate Athletes to Olympians, the DOB data would have to be scraped from Wikipedia for NCAA athletes individually since DOBs aren’t typically listed for a collective set of athletes. |

**Sources:**

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Estel Hegglin (personal communication, April 24, 2020) discusses 2016 Summer Athletic Olympic results

Estel Hegglin (personal communication, May 11, 2020) discusses 2000-2012 Summer Athletic Olympic results

(# of medaled events) - <https://www.nbcolympics.com/track-and-field/>

(largest single sport) - <https://tokyo2020.org/en/sports/athletics/>

Sydney 2000 Olympic Results: <https://library.olympic.org/Default/doc/SYRACUSE/36540/official-results-book-sydney-2000-brochure-des-resultats-officiels-sydney-2000-sydney-organising-com>

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Michael Norman: <https://en.wikipedia.org/wiki/Michael_Norman_(sprinter)>

Possible Additional Questions:

I may want to look at varying statistics surrounding the Summer Olympic games with medals won by country, age differences and repeat champions.

1. How many times did the Gold medalist in 2012 win the Gold in 2016 for their event(s)?
2. Which woman/man had the most Gold medals in the Summer Olympics from 2000-2016?
3. For the events selected, which country has won the most Olympic gold, silver & bronze medals in the past two Summer Olympics (2012 and 2016)?

