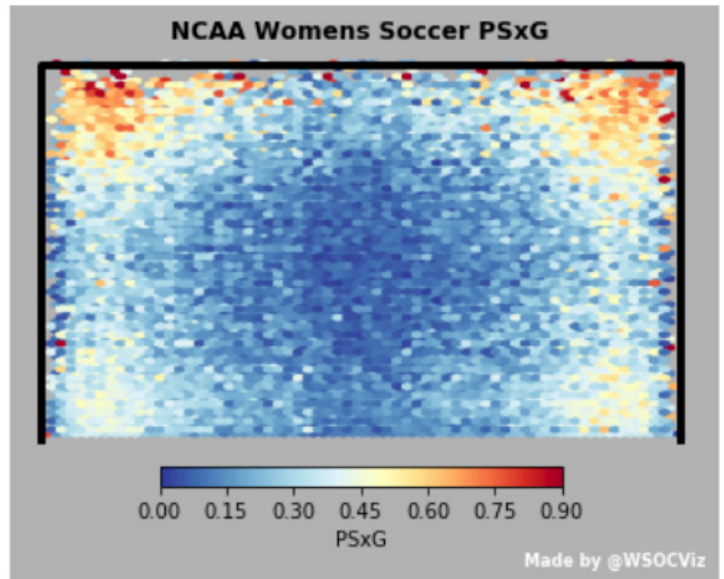
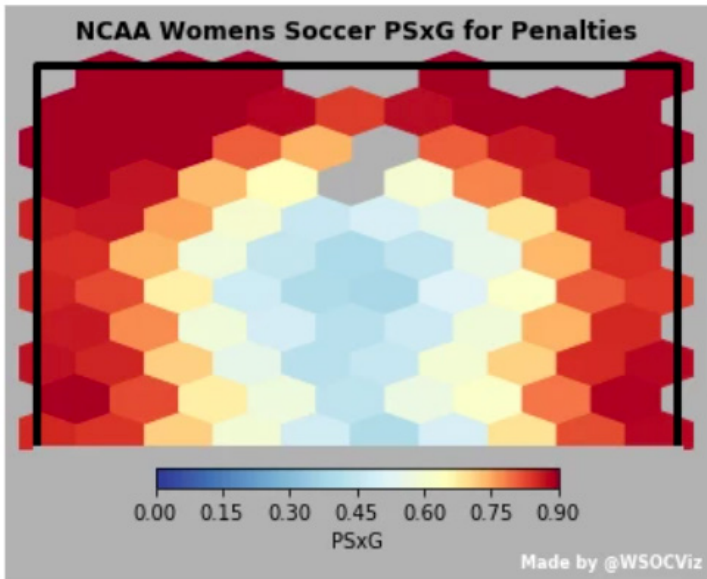


Youcubed Data Talk Women's Soccer

What do you notice?
What do you wonder?

What is going on in this data visualization?



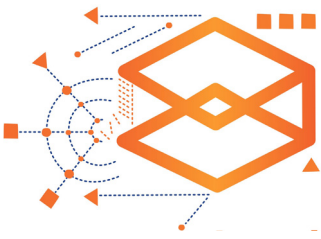
<https://mrpoma98.wixsite.com/wsocviz/post/expecting-goals-in-ncaa-wsoc>

We love these graphs by Michael Poma, an analyst for the women's soccer program at James Madison University. The data visualization on the left shows a soccer goal and the likelihood of a goal being scored based on the position of the shot (PSxG or post-shot expected goals). Note that penalty shots are scored with a 72% success rate in the NCAA. The data visualization on the right shows the likelihood of success of shots in open play, not from penalties.

The data is collected from all National Collegiate Athletic Association (NCAA) Division 1 women soccer games between 2017-2019 (approx. 6500 games) from [InStat](https://www.instat.com/).

For more information about Data Science and Data Talks, and advice on ways to implement data talks, go to <https://www.youcubed.org/resource/data-talks/>

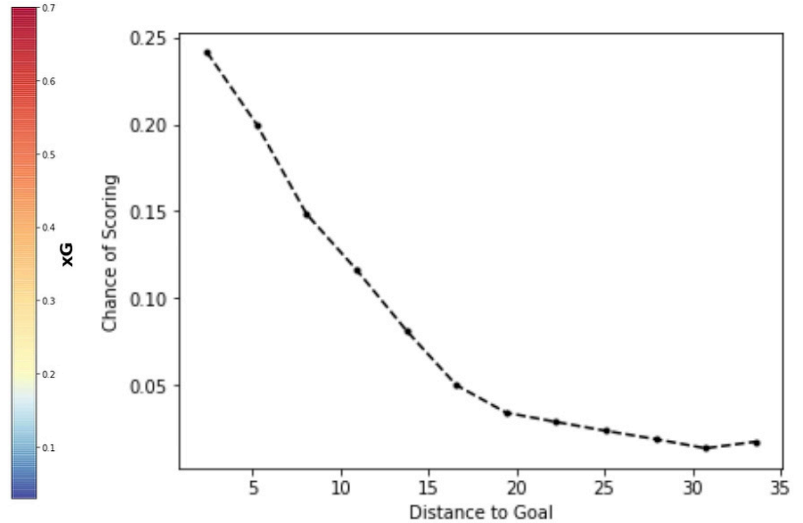
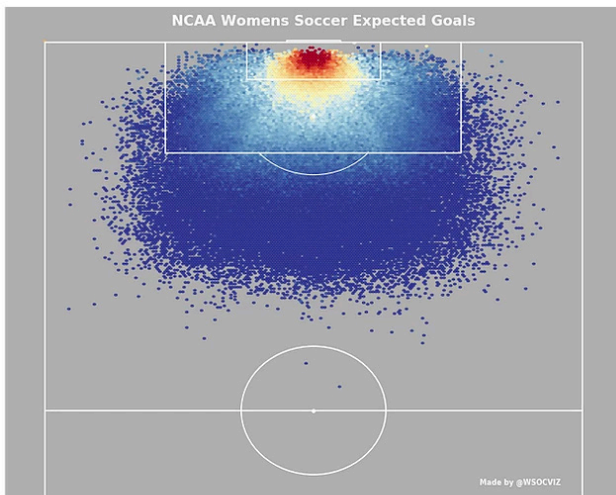




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The above is a hexplot of Expected Goals from all non-penalty shots in my dataset.

<https://mrpoma98.wixsite.com/wsocviz/post/expecting-goals-in-ncaa-wsoc>

We at youcubed love soccer and are thrilled to have come across the work of Michael Poma. NCAA soccer uses many interesting statistics to describe quality of play by individual players and entire teams. One such measure is called Expected Goals (xG). This is a measure of the qualities of a shot and the likelihood it will end in a goal being scored. The Expected Goal measure takes into consideration many factors including: the players distance from the goal, the angle of the shot, whether the shot was taken with the players foot or head, the type of assist, etc.

The data visualization on the left shows the Expected Goals measure for all non-penalty shots in the data set plotted onto a diagram of the field. The graph on the right shows the relationship between the distance from the goal measure and the chance of scoring. Can you think of factors in addition to distance that could impact a players chance of scoring? How could this new factor be represented in a graph?

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