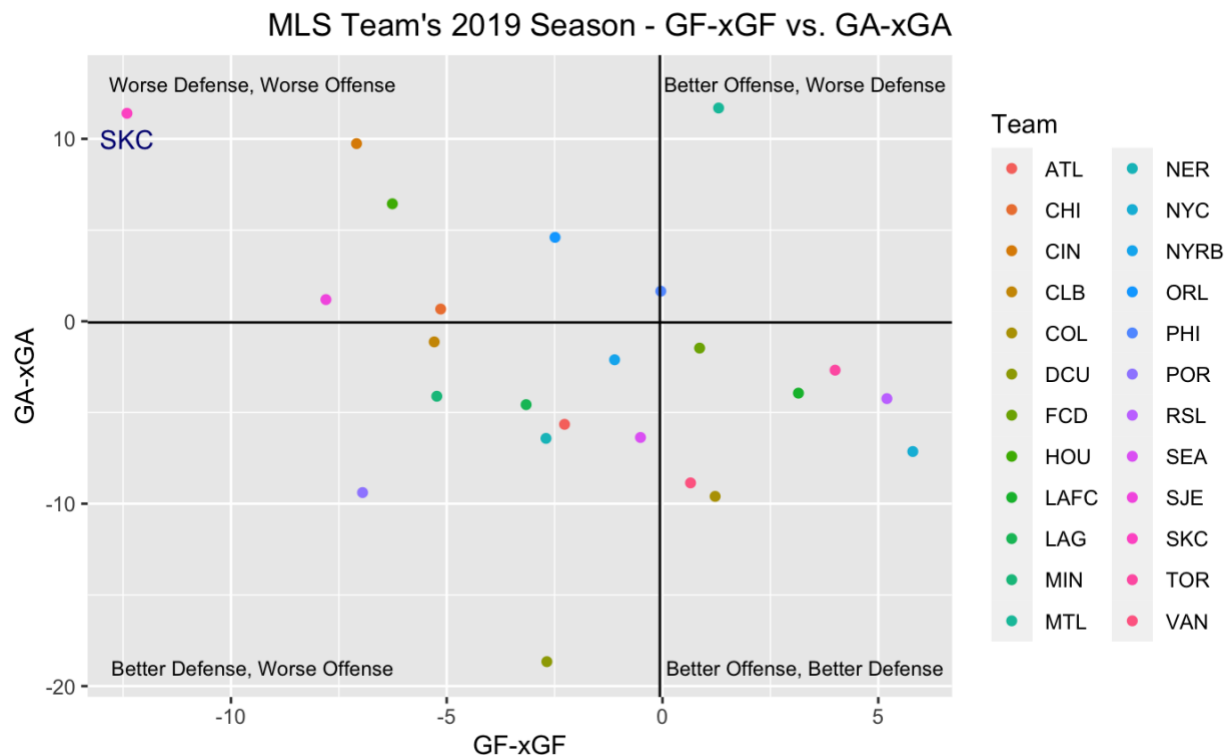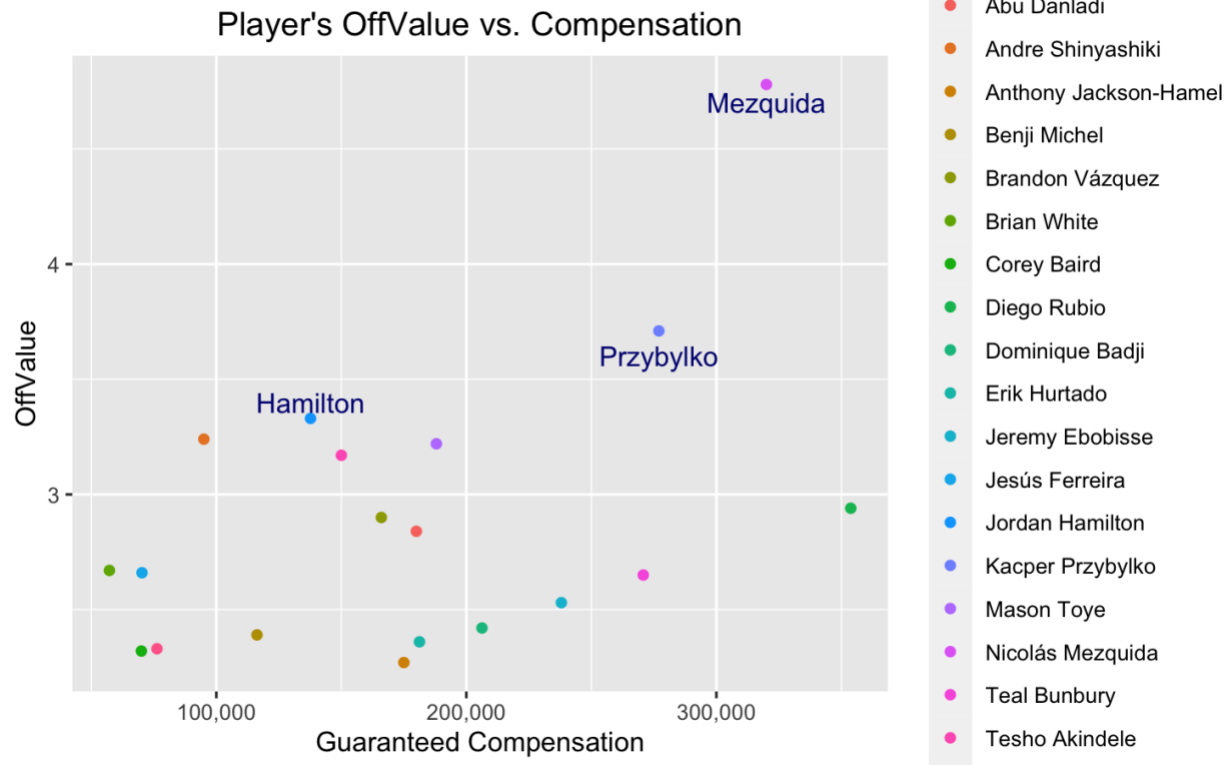# Nashville SC Data Project
Dominic Samangy

With the first task of deciding which team to take control of, I took a look at how each team performed offensively and defensively during the 2019 MLS season. I chose the 2019 season as my sample as it best represents player contributions in comparison to the 2020 season stats as it has just begun. My goal was to identify the team that struggled the most and to choose them as logically they would be in the most urgent need of replacements via a trade. To do so, I looked at the relationship between the difference of goals (G) and expected goals (xGA) vs goals allowed (GA) and expected goals allowed (xGA) on a team level. As seen below, SKC struggled the most offensively throughout the 2019 season with -12.41 goals less than expected.
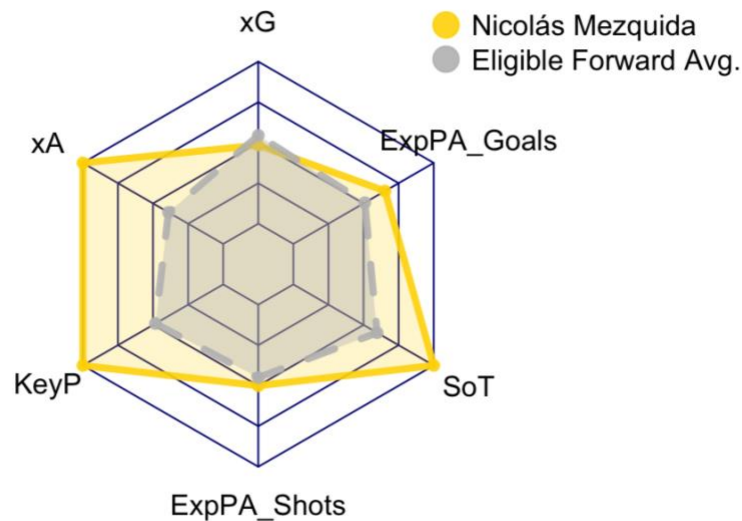

Next, I looked to identify players who provided the most offensive value while also meeting the maximum guaranteed compensation of $400,000. After gathering, merging, and cleaning datasets from American Soccer Analysis, I decided to utilize per game, or per 96 minutes, data as not all players have equal minutes played. Next, I placed a final requirement that all players eligible for consideration played at least 653 minutes played, or 20% of the average 3264 (34*96) minutes available over the 2019 season, as a way to rid the randomness of players with little game time. With a look at the plot below, I identified Nicolas Mezquida, Kacper Przybylko, and Jordan Hamilton as three attacking targets for SKC.

Player's OffValue vs. Compensation

Legend:
- Abu Danladi
- Andre Shinyashiki
- Anthony Jackson-Hamel
- Benji Michel
- Brandon Vázquez
- Brian White
- Corey Baird
- Diego Rubio
- Dominique Badji
- Erik Hurtado
- Jeremy Ebobisse
- Jesús Ferreira
- Jordan Hamilton
- Kacper Przybylko
- Mason Toye
- Nicolás Mezquida
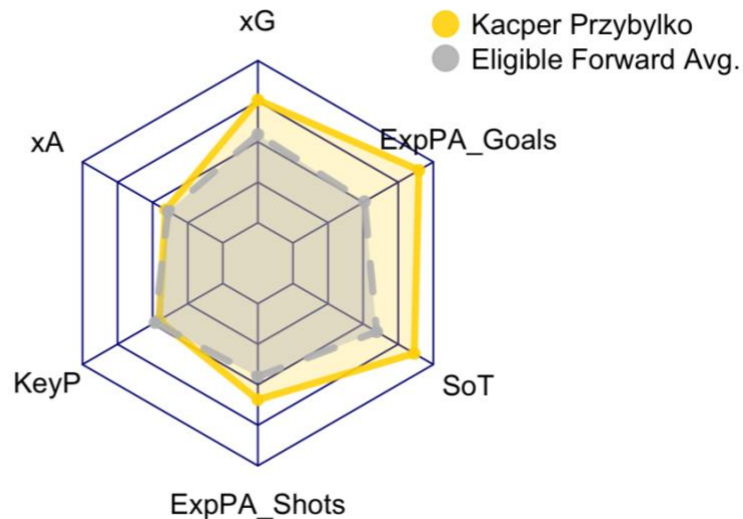- Teal Bunbury
- Tesho Akindele

Our first target, Nicolas Mezquida, of the Colorado Rapids, is highly involved offensively as an attacking midfielder but is the most expensive of the three at $320,000. Below we can see his average output for each stat that I deemed important versus the average of each eligible player (forward, <$400,000).

Radar Chart of Player's OffValue Stats (Per 96)
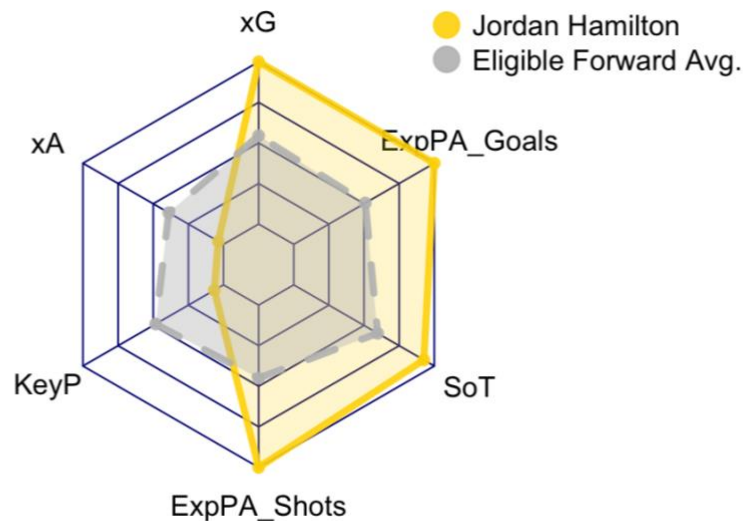

Legend:
- Nicolás Mezquida
- Eligible Forward Avg.

Our second target, Kacper Przybylko, of the Philadelphia Union, is another highly involved attacking option who plays as a striker and would cost $277,000. Again, here is Przybylko's radar chart as seen with Mezquida.

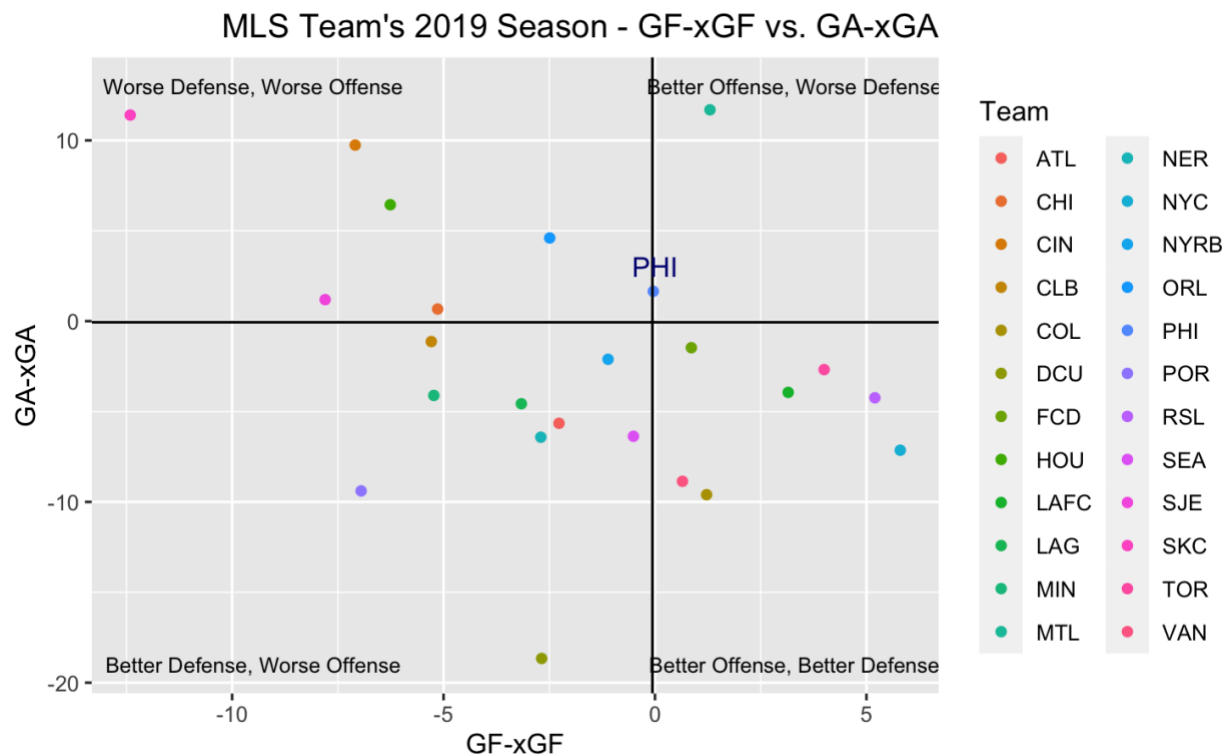**Radar Chart of Player's OffValue Stats (Per 96)**

Lastly, our third target is Columbus Crew forward Jordan Hamilton, who is performed off the charts offensively in 2019 but only played 767 minutes, so we should be wary of randomness in his output. His guaranteed compensation is set at $137,658.

Radar Chart of Player's OffValue Stats (Per 96)

After reviewing all three targets, I would try to acquire Kacper Przybylko from the Philadelphia Union. I would stay away from Mezquida as he plays primarily as a midfield/2nd striker and from Hamilton as he performed well last season but did not play enough to warrant a move. With the arrival of Alan Pulido in the offseason, I feel Przybylko would be an ideal backup who can provide competition and contribute offensively, after a 15-goal 2019 season. For this type of proven production, his guaranteed compensation of $277,000 is certainly justified.

In terms of a trade piece, I would look to move Botond Barath, who is either a 4th or 5th choice CB after the arrival of Winston Reid and Roberto Puncec in the offseason. As seen below, Philadelphia may need defensive reinforcements after slightly underperforming last season so this move may please both sides. Barath also has similar compensation ($297,333) to Przybylko's ($277,000), which may be ideal for balancing the books.

In review, with the resources provided in the email, I am confident my analysis provides an in-depth look at the affordable offensive options available for Sporting Kansas City. While utilizing data from the past season provides the best results possible, it would have also been ideal to incorporate current data. However, given today's current circumstances and the delayed start to the 2020 season, I am pleased with the results. Also, while the insight provided throughout this report is significant, the combination of such with video analysis would lead to making the soundest decisions when attempting to acquire a player via trade. With the focus of this report being on the numbers, it is important to keep this in mind.