In preparation for the 2021 NHL Expansion Draft, we have analyzed the last 15 years of NHL player data in order to assist the new Seattle hockey team as they move closer to their inaugural season.

Considering the recent success of the Vegas Golden Knights in their first season back in 2018, our analysis into productivity’s correlation with age is aimed at making Seattle an immediate contender.

**Transition to Graphs page**

Our analysis began by separating players out into two categories based on position: forwards and defensemen. In each category, we analyzed players who had at least 25 games per season and tracked them by Points, Hits, Blocks, and Penalty minutes.

(**Position: Forwards**) Upon first glance, it appears that forwards’ offensive production is at their highest at age 20-21 and toward the end of their career around 33-35. However, it is crucial to note that there is a significantly lower portion of player in these two age ranges compared to other ages. The average NHL player will enter the league closer to 24, so players entering 20-21 are going to be ahead of the curve and talented enough to forgo any further development in affiliate leagues.

When we break these metrics down into time periods across our dataset, we see that while older players may have been more productive in the past, recent trends show a sharp drop off at age 31 with inconsistent productivity from there. Typically, forwards will peak in production at around age 28.

(**Metric: Hits**) When looking at more defensive metrics for forwards, we see that the game has gotten more physical as hits and blocks have increased across the board, sometimes as much as 50 to 100%. When looking at hits, we see a slight drop off toward the end of a players’ career, but by and large forwards maintain that level over the course of the career. (**Metric: Blocks**) This is something we see even more so in blocks, if not a slight increase as they get older.

(**Metric: PIM**) And lastly a look at penalty minutes shows the NHL becoming a more disciplined game over the years. Interestingly, players tend to gradually commit more penalties throughout their careers.

So, as far as forwards go, the ideal age range for offensive production is players would be between 20-29, with peak production expected at 28. When considering a forward exclusively for their physical or defensive impact however, it would be reasonable to acquire a player at nearly any age and weigh other factors such as salary and penalties.

(**Position: Defensemen**) When looking at offensive production for defensemen, we see a continual decline in points as they age. But while the decreases we saw for forwards spanned .25 goals, the decrease we see for defensemen is only about .1 goals over the course of their career.

We similarly broke down these graphs by year to observe how trends may have changed. In recent years, there has been a drastic drop off at age 33. Prior to this, points scored has maintained relative consistency between ages 20-28.

For defensemen, it can be more difficult to quantify defensive production, particularly in absence of more advanced metrics such as WAR. In absence of this, we moved forward with tracking a defender’s physicality much like we did with forwards.

**(Metric: Hits**) As we saw with forwards, defensemen have seen an increase across the board in hits and blocks. For hits, we see players peak at age 28 but maintain relatively consistent numbers on either side. (**Metric: Blocks**) For blocks, we actually see this gradually increase over the course of a player’s career and peaking at 35.

**(Metric: PIM)** Finally for penalty minutes, players tend to stay consistent over the course of their careers, with the peaks coming at the youngest and oldest defensemen. This is to be expected as these groups are likely the most immature and slowest, respectively.

On final analysis, defensemen appear to stretch their productivity further into their early 30s. For offensive output, the ideal years will be between 20-28, with still respectable numbers through 32. For defensive metrics that were available to us, production remained consistent with a slight edge given to older players.

**Transition to 2020 Players page**

With these ranges in mind, we collected player statistics for the most recent season, 2020. Per the expansion draft rules, each team is allowed to protect 7 forwards and 3 defensemen, so upon filtering out the projected protected players for each team, we have created a collection of players in the recommended age ranges from our analysis. By filtering from team to team, you will be able to see potential players available during next summer’s draft.

We look forward to seeing what Seattle’s first NHL team has to offer, thank you for your time.