

## **Is Hockey still Canada's game? How USA teams have won every Stanley Cup since 1994**

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### **ABSTRACT**

The last Canadian team to win Lord Stanley's cup in the National Hockey League was the Montreal Canadiens in 1993. Since then, each championship has been claimed by a team geographically located in the United States. Is this streak unusual? Perhaps it is particularly unusual in light of the fact that Hockey is known as Canada's game. Is Hockey in its modern incarnation still Canada's game? Are we too fixated on the geographic location of the teams in question? Perhaps the nationalities of the players on these Championship American teams skew heavily towards Canadian? Or perhaps to other countries? Or are we at the start of country spanning sports curse akin to the Red Sox trade of Babe Ruth. Or maybe we should just follow the money. In this paper, we examine the likelihood of such a streak, the changing landscape of nationalities, development of players and influencing factors on players in the NHL.

### **INTRODUCTION**

The average temperature in Canada, between 1901 and 2021, was a brisk -5.21 degrees Celsius/22.63 Fahrenheit [A]. The below freezing temperatures made Canada an ideal location for the development of (ice) hockey. Claims that Canada is the birthplace of hockey are disputed as evidence suggests that the sport likely originated in the United Kingdom. However, Canada is credited with the rapid development and popularity of the sport beginning with one of the earliest recorded games that took place in Montreal in 1875 (GHM). From the organized games in Montreal, the sport developed further in Canada as structured rules were adopted, and leagues were formed. 1893 saw the Stanley cup introduced as the award for the top hockey team in Canada and first claimed by the Montreal Hockey Club. Unlike modern times, teams challenged the champion club at any time during the season, and the winner received the Stanley Cup. This continued until 1912 when the format of awarding the Stanley Cup changed to only allowing challenges following the end of the champion's regular season [HC].

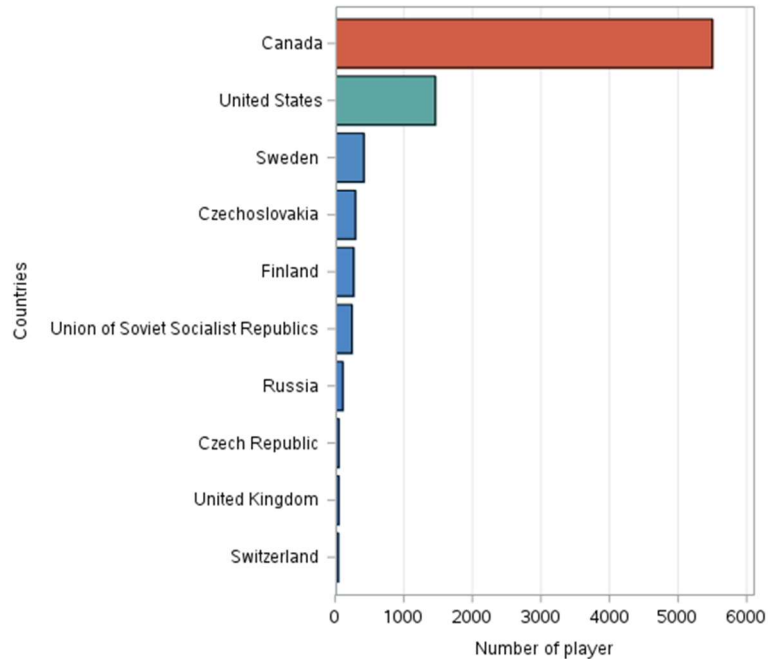
The challenge era of the Stanley Cup ended in 1915 when the trophy went to the winner of the match-up between the league champions from the National Hockey Association and the Pacific Coast Hockey Association. This format remained in place as new leagues were created, and existing leagues folded as professional hockey grew in Canada. In 1926, the National Hockey League (NHL) gained exclusive control of the Stanley Cup making it the championship trophy for the league [HC].

The NHL was comprised of as many as 10 teams, located in both Canada and the United States, during the period of 1926 to 1942. However, the 1942-1943 season marked the beginning of the era known as the Original Six in the NHL. This era lasted for the 25 seasons and the league consisted only of the Boston Bruins, Chicago Black Hawks, Detroit Redwings, Montreal Canadians, New York Rangers, and the Toronto Maple Leafs. During this time of four American teams and two Canadian teams, Canada won 19 Stanley Cups at a success rate of  $\frac{19}{25} = 0.76$ ; far more than the  $\frac{1}{3}$  they might be due based on city location in the league.

The NHL expanded to 12 teams in 1967, and added two more teams in each of 1970, 1972, and 1974. In 1979, the World Hockey Association (WHA) folded and four more teams were added to the NHL. Between 1990 and 1999, the league continued to expand and grew to a total of 28 teams. In 2000, the league added two new cities reaching a total of 30 teams. In 2016, the NHL expanded once more to add the Las Vegas Golden Knights and grew to 31 teams, seven located in Canada and 24 in the United States (NHL). Lastly in 2021, The Seattle Kraken joined the NHL.

## HOCKEY AS CANADA'S GAME

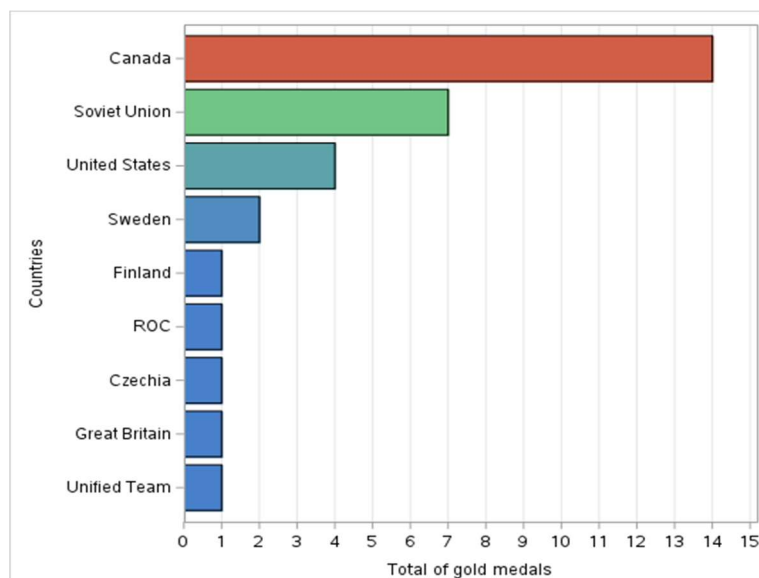
Hockey in Canada is inextricably tied to the culture of the people who live there. Canada currently tops the list of all countries with the most registered hockey players at all levels and the highest per capita number of players [IIHF]. The top 10 countries with the highest number of NHL players are depicted in Figure 1.



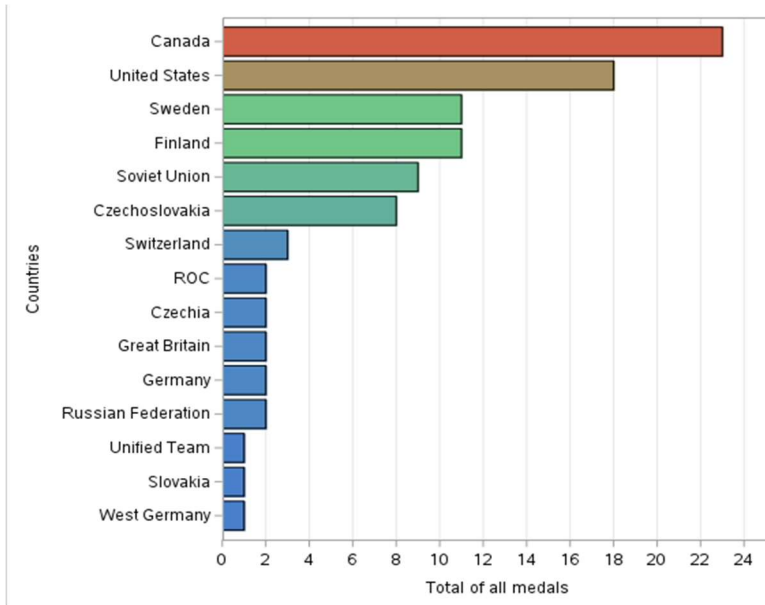
**Figure 1: Frequency of NHL Players by Country**

**Further evidence of Canada's influence on Hockey can be found in Olympic competition. Since the inclusion of Hockey in the Olympics at the 1920 games, Canada leads all other countries in gold medals and total medals as shown in**

Figure 2 and Figure 3 [HR].

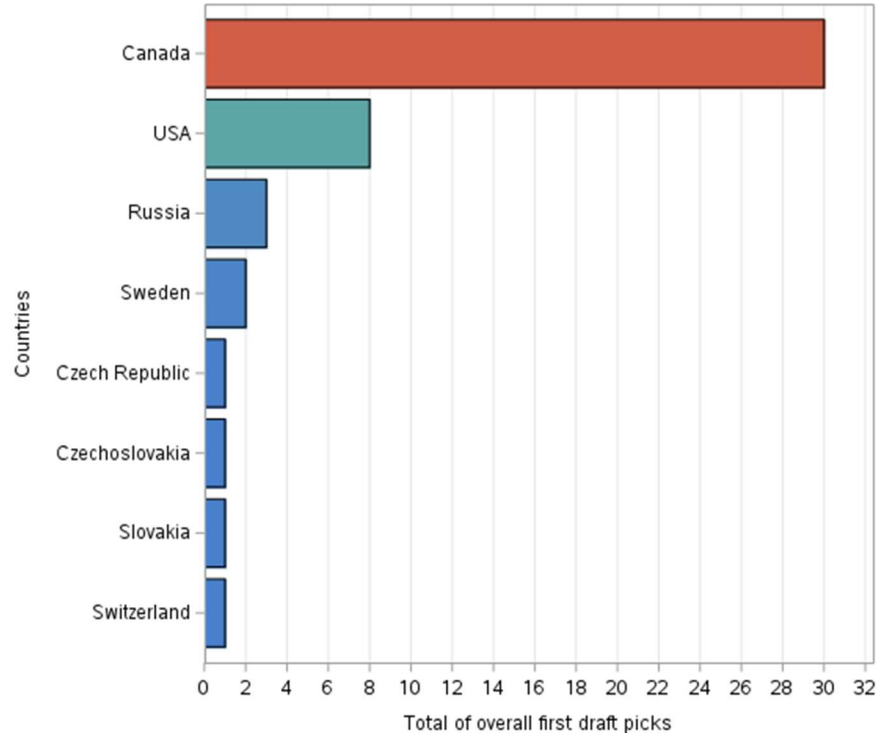


**Figure 2: Frequency of Gold Medals Won in Men's Ice Hockey by Country**



**Figure 3: Frequency of all Medals Won in Men's Ice Hockey by Country**

Since the inception of the NHL draft in 1963, the number one draft pick came from Canada up until 1982 with the selection of Brian Lawton from the United States. Even after breaking the Canadian stranglehold, only 15 of the 55 number one draft picks hail from countries other than the Great White North. The frequency of country of origin for number one draft picks are shown in Figure 4 [HR].



**Figure 4: Frequency of Number One Draft Picks by Country**

These visualizations demonstrate the long-term success in hockey of players born in Canada. The sport is well known as “Canada’s Game.” So much so, the National Sports of Canada Act of 1994 named hockey as its national winter sport (with lacrosse taking the honors as the national summer sport). Hockey is so ingrained in Canada’s culture that the five-dollar note, issued between 2002 and 2006, included scenes depicting children playing hockey on the reverse side [BC].

Despite Canada’s long association with excellence in hockey, an American team has won the Stanley Cup every year since 1994 (excluding the cancelled 2004-2005 season due to the NHL lockout). We shall refer to this stretch of US wins as **the streak**. What is the likelihood that Canada would have its current 31 season streak without taking the top prize in Canada’s game? Alternatively, we can put a more positive light on the question. What is the likelihood that the United States would have a 31 season claim to the Stanley Cup?

## THE LIKELIHOOD OF THE STREAK

What is the likelihood of such a losing or winning (depending upon one’s perspective) streak? While we have only two countries represented in the NHL, the answer is certainly not a straightforward  $0.5^{31} = 4.65 \times 10^{-10}$ . The number of teams in the league and those located in Canada and the United States has changed throughout the years. From 1918 to 1924 (except in 1919 when the playoffs were cancelled due to the Spanish Flu epidemic), Canada had to win the Stanley Cup since the NHL contained no US teams. From this point on, US teams had a non-zero probability of winning the Stanley Cup. We will assume that every team in the league is equally likely to take home the Stanley Cup. Fans might argue this point. However, the appearance of the then rookie season Vegas Knights in the 2018 finals serves to at least put a damper on any such debate.

To determine the likelihood of such a streak we examine the winner of the Stanley Cup for each season going back to 1918 along with the number of Canadian and US teams (as shown in the appendix). Let  $RC_i$  and  $RU_i$  be the respective ratios of Canadian and American teams in the NHL in season  $i$ . Let  $PC_i$  and  $PU_i$  be the respective probabilities of a 31-season streak at year  $i$ . Computing  $PU_{2025} = \prod_{1994}^{2025} RU_i$  yields the probability that the US has won every Stanley Cup since 1994. This probability is a very unlikely 0.00029836. It is easier to believe that there are other forces at hand that impact the streak.

## INFLUENCING FACTORS OF THE STREAK

Perhaps we are overly fixated on the geography of the host city that wins the Stanley Cup. The 1970s Montreal Canadiens were one of hockey’s greatest dynasties, but their roster included players such as Paul Nyrop (Minnesota) and Rich Chartraw (Born in Venezeula to American Engineers). Even during the 1993 Montreal Canadiens victory (the last Canadian located team to bring home the Stanley Cup), their roster included Soviet, Swedish and American players.

THE CHANGING FACE OF STANLEY CUP CHAMPION PLAYERS RELATIVE TO COUNTRY OF BIRTH

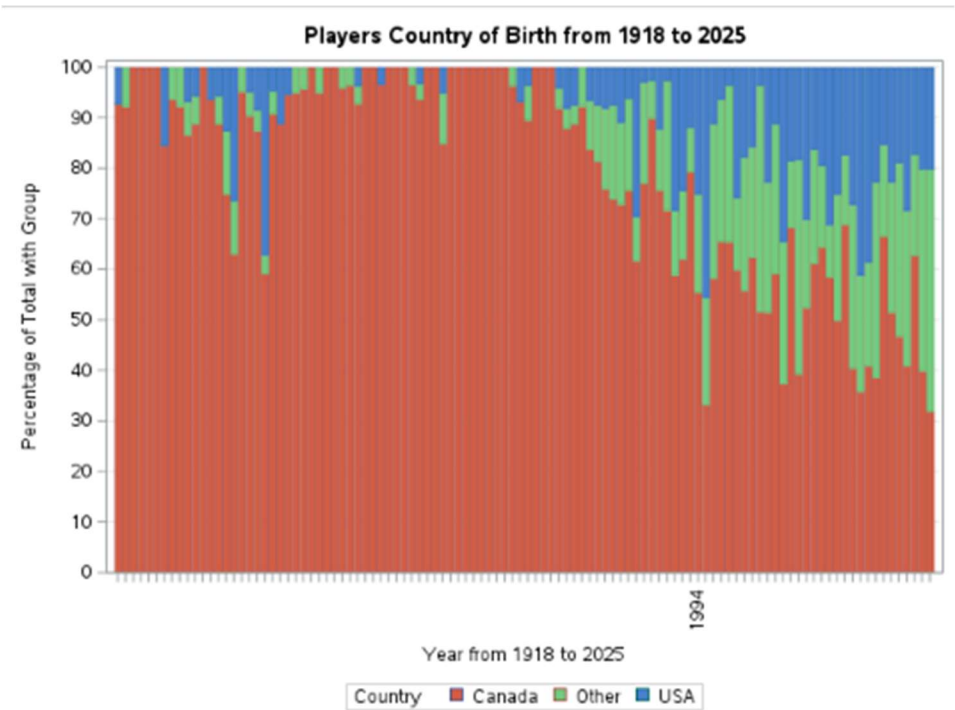


Figure 5: Birth Country of Stanley Cup Winning Players

Figure 5 demonstrates the nationality of Stanley Cup champion players. While non-Canadian NHL players have been a mainstay on champion teams, we can see that players outside of Canada begin forming a steady and increasing presence roughly two decades before the streak begins in 1994. This time frame also includes the 1980 gold medal win for US Hockey, colloquially known as the Miracle on Ice, which naturally led to a greater interest in Hockey in the US. Many champion teams had fewer than 10% of its players born outside of Canada. Contrast that to recent years when many champion teams consisted of fewer than 50% of its player from Canada. Figure 6 illustrates the significantly changing proportions of Canadians, Americans and those born outside of North America on champion winning teams prior to and during the streak.

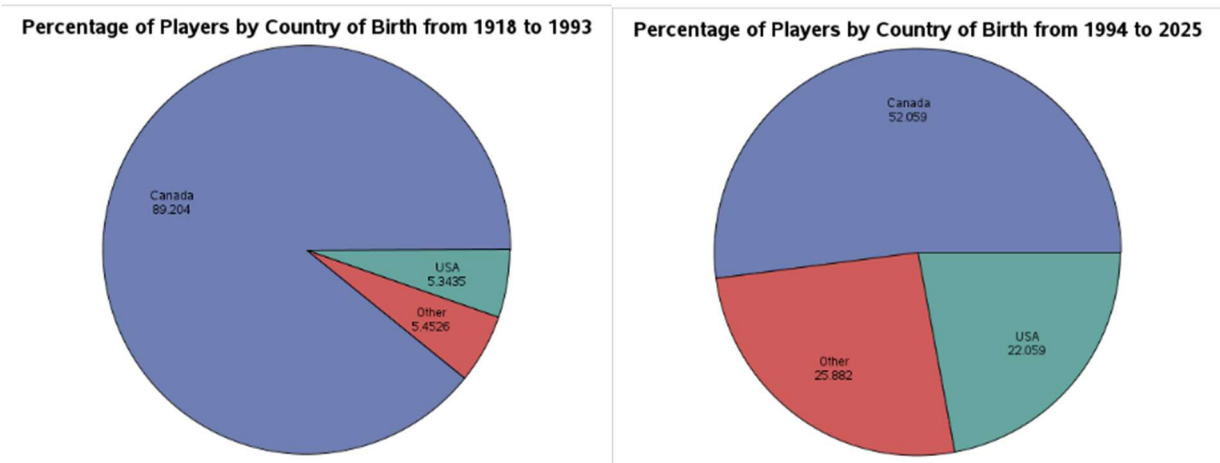


Figure 6: Country of Origin for Players on Stanley Cup winning Teams

## SHOW ME THE MONEY

It seems fair to assume players who get to choose where to play would focus on the value of the contract. Money is a powerful motivation. This would necessitate considering after tax money in their pockets. Canada and the US have very different tax rates. In Canada the top 20% of earners pay 2/3 of the total taxes. The Canadian debate is on if the rich pay too much in taxes[D]. In contrast, the debate in the US is do the wealthy pay their fair share of taxes[K]. A three-million-dollar contract in Canada places one in a high tax bracket. Furthermore, “There are six teams in the NHL that play in cities that do not levy a state income tax: Florida Panthers, Tampa Bay Lightning, Nashville Predators, Seattle Kraken, Vegas Golden Knights and Dallas Stars. Undoubtedly, this is a financial advantage for these players and is being used as a recruiting tool by these teams [P].” It is key to note that three of these six teams with no state income tax represent five of the last six Stanley Cup champions. Also key to note that unrestricted free agency became available to all players in 1995 [FA].

Rank	Country	Team Name	Tax rate	Rank	Country	Team Name	Tax rate
1	Canada	Montreal Canadiens	53.15%	17	US	Boston Bruins	45.78%
2	Canada	Toronto Maple Leafs	52.32%	18	US	Detroit Red Wings	45.48%
3	Canada	Ottawa Senators	52.32%	19	US	Columbus Blue Jackets	45.19%
4	Canada	Vancouver Canucks	52.20%	20	US	St. Louis Blues	44.75%
5	US	New York Rangers	51.68%	21	US	Philadelphia Flyers	44.08%
6	US	Anaheim Ducks	51.67%	22	US	Pittsburgh Penguins	44.05%
7	US	Los Angeles Kings	51.67%	23	US	Chicago Blackhawks	43.73%
8	US	San Jose Sharks	51.67%	24	US	Utah Hockey Club*	43.60%
9	Canada	Winnipeg Jets	49.46%	25	US	Carolina Hurricanes	43.59%
10	US	Washington Capitals	48.35%	26	US	Colorado Avalanche	43.29%
11	US	Minnesota Wild	47.91%	27	US	Vegas Golden Knights	40.51%
12	US	New Jersey Devils	47.85%	28	US	Dallas Stars	40.34%
13	US	New York Islanders	47.82%	29	US	Nashville Predators	40.29%
14	US	Buffalo Sabres	47.82%	30	US	Florida Panthers	40.28%
15	Canada	Edmonton Oilers	47.01%	31	US	Tampa Bay Lightning	40.25%
16	Canada	Calgary Flames	46.85%	32	US	Seattle Kraken	40.20%

Table 1: Tax rates for NHL Team Locations

Table 1 above shows the dry tax rate rankings. Every Canadian team's tax rate falls above the median value. Table 2 respectively shows summary statistics for Canada and the US tax rates.

Basic Statistical Measures				Basic Statistical Measures			
Location		Variability		Location		Variability	
Mean	0.504729	Std Deviation	0.02681	Mean	0.452740	Std Deviation	0.03889
Median	0.522000	Variance	0.0007186	Median	0.447500	Variance	0.00151
Mode	0.523200	Range	0.06300	Mode	0.516700	Range	0.11480
		Interquartile Range	0.05310			Interquartile Range	0.04560

Table 2 Summary statistics for income tax rates for Canada and the US

At the player level, Canadian taxes have resulted in more spirited actions.

- From the 1990s, the Vancouver Canucks and Russian NHL star Pavel Bure were involved in a contract dispute, where Bure ended up losing millions of dollars in compensation compared to his counterparts because Vancouver stipulated that he be paid in Canadian dollars [BU]
- John Tavares of the Toronto Maple Leafs is currently involved in a tax court dispute with the Canada Revenue Agency (their equivalent of the US IRS) for millions of dollars regarding his signing bonus when he joined in 2019 [ML1]. Additional players from the Leafs battling similar circumstances include Patrick Marleau and Jake Muzzin [ML2]

It is a known opinion that cases like these create a “chilling effect” on players who wish to sign with Canadian teams. Additionally, the Canadian province of Alberta specifically targeted NHL players 12.5% extra for any games played in the cities of Edmonton and Calgary from 2002-2005 [NYT]. Figure 7 clearly illustrates this difference in tax rates. The upper quartile for the US barely exceeds the lower quartile for Canada. Note that these are small data sets with no outliers.

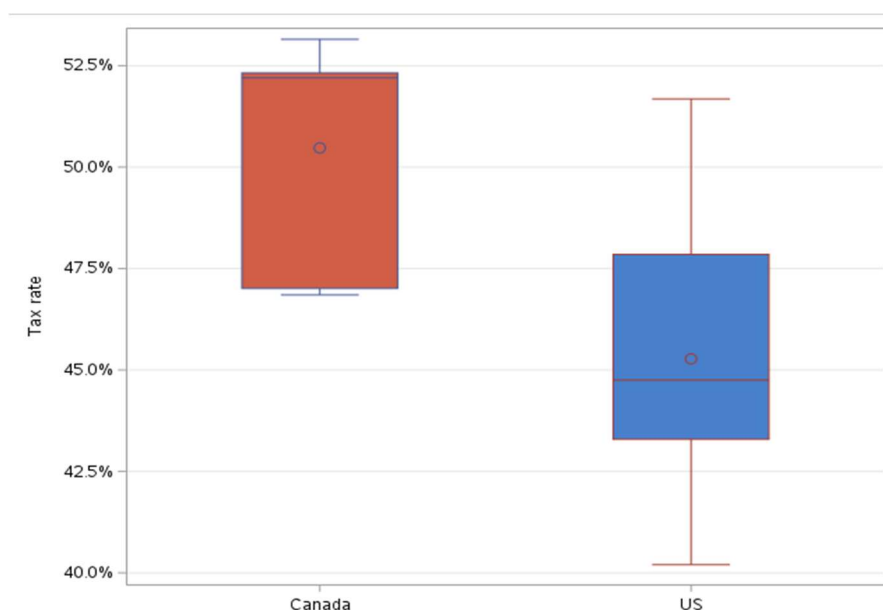


Figure 7: Tax rates of Canada and the US

All US based teams are not immune to the tax impact. In 2024, the Mass Opportunity Alliance suggested that the Boston Bruins are losing out on top tier talent due to the preference of players who want to play in states with lower taxation, so they receive more of their income [NYPOST]. The Associated Press has reported that if key contributor Sam Reinhart had not signed with the Panthers, if he was in California he

would stand to owe \$1.1 million more, \$1.5 million more in New York State, and \$1.4 million in Toronto. Of the teams located in states with no income tax (Dallas, Florida, Nashville, Seattle, Tampa Bay, Vegas), combined they spent over \$250 million, or a quarter of all spent during the opening of the free agency period just on player salaries [APNEWS].

## THE FALL OF THE USSR

If it is even possible for the cold war between Russia and the US to have an end date, we would mark it as December 25, 1991. On that day, Gorbachev resigned. On the following day the USSR officially ceased to exist. This led to new freedoms for the former residents of the USSR. Did this allow an influx of hockey players from outside North America into the NHL? We've already established that Canada has a higher tax rate than the US. Do non-North American hockey players choose to play for US teams to keep more of their paycheck? It is certainly interesting to note that the dissolution of the USSR occurred three years prior to the beginning of the geographically based American winning streak in the Stanley Cup finals. It is likely that the fall of the USSR merely led to a bigger talent pool of players overall. It is natural to assume that all players look to keep more of their salary whenever possible.

## WHO GETS TO PICK WHERE THEY PLAY

Not every athlete in the NHL picks where they want to play. New players in the NHL are picked by teams based on the draft. When one turns 18, NHL teams get first rights to sign you if you are talented enough to potentially play at the NHL level. Annually, the NHL holds its entry draft, where every team gets turns to select rights to young amateur players, typically in the 18-20 range in North America and up to 21 internationally. Teams are chosen in a prescribed order based on lottery and performance; worse-performing teams generally get earlier picks to help maintain parity and to ensure the team does not "tank" for the whole season to get the next upcoming star.

Only players with longer careers will have the opportunity to pick their team as a free agent. Do players with a longer career in the NHL make an impact? That certainly seems to be the case in MLB and the World Series [AT].

## DEVELOPMENT PATHWAYS IN NHL

In search of high-level talent, NHL scouts operate globally across multiple leagues, countries and continents. A player's developmental journey matters more for professional success than simply country of birth, with players frequently crossing borders to play higher levels of hockey. For example,

- Sidney Crosby played for Shattuck St. Mary's (US prep school) before being drafted to Major Junior in Quebec
- Auston Matthews played professional hockey in Switzerland as 17-year-old before being drafted first overall by Toronto in 2016
- Mika Zibanejad played Swedish junior and professional leagues before debuting with the Ottawa Senators in 2011

Traditionally, players follow a set of three primary pathways to make it to the league. These are Canadian Major Junior, the NCAA, or Europe.

Canadian Major Junior (also referred to as the CHL) is a combination of three high-level, semi-professional junior leagues in Ontario, Quebec and Western Canada. These leagues are the Ontario Hockey League (OHL), Quebec Major Junior Hockey League (QMJHL) and Western Hockey League (WHL). All these leagues fall under the umbrella of the Canadian Hockey League (CHL). Most drafted NHL players come from this pipeline and as such is a primary venue for most NHL scouts to attend games.

The NCAA is the collegiate route for players, typically most followed by Americans. This path allows for a longer development path, educational opportunities and advantageous draft rights since the NHL allows teams rights often until a few years after their collegiate careers. It is extremely rare for someone to make the NHL from Division 3; it is only Division 1 players that typically make the jump to the next level.



Additionally, American players will more often than not come through the United States Hockey League, the American equivalent to the CHL but more tailored towards developing players for Division 1 play. Over 365 players in the league are committed to playing at the Division 1 Level. [USHL].

In Europe, young players typically develop within club systems that are tied to professional teams. For example, a SHL team in Sweden may field a team within their J20 Super Elite league as a way of developing and grooming players to move onto their senior professional squads. Similar setups exist within Russia for the MHL to KHL. The European pipeline follows a more long-term development structure, with clubs investing more resources towards coaching and resources to cultivate professional-tier players. For the purposes of this paper, we will generalize these leagues as the “European pathway”.

We aim to study or try to find how the different developmental pathways, draft standings, and player positions affect a player’s longevity at the NHL level. As mentioned, we classify the following as routes players go through when making it to the league:

- Canadian Major Junior: WHL, OHL, QMJHL
- NCAA: American Division 1 College Hockey
- European: Junior or Professional Leagues in Europe (Russia, Sweden, Finland, etc.)
- Other: Players that do not fit the above three

To study such phenomena, we enter this analysis with the following research hypotheses statements:

1. There is no significant difference in NHL career length (measured in games played) among the different pathways (One-Way ANOVA, Tukey HSD)
2. There is no significant difference between a player’s NHL draft position in their career length when accounting for their development ‘pathway’ (Multiple Linear Regression)

In this analysis, we sampled a set ( $n = 2911$ ) of players who began or played at least one game in the NHL from 2004-2024. This dataset included player profiles of their pre-NHL experience, the number of games played in the NHL and their player statistics and respective position. All data was sourced from HockeyReference.com.

We reject the null hypothesis and accept the alternative for our first hypothesis ( $p < 0.001$ ). Major Junior players play the highest average amount of games (286.54) in the NHL, with European-based pathways second (241.24), NCAA at third (236.89) and other, non-traditional pathways last (122.08). In terms of average career lengths, the European and NCAA pathways are statistically indistinguishable from each other.

We reject the null hypothesis and accept the alternative for our second hypothesis ( $p < 0.0001$ ). While our regression only explained 9.6% of the variance in games played among drafted players, we have strong evidence that a player’s draft position is associated with career length after controlling for the development pathway. We estimate that per every one slot drop in draft position, e.g. 10th vs 11th overall, equates to 1.2 fewer games played on average.

It is these more talented and properly developed players who have, on average, long and successful careers which lead to becoming a free agent contract and getting to choose where to play. Further details of development pathway analysis can be found in Appendix B.

## CONCLUSION

The likelihood of a US-based team taking home the Stanley Cup every year since 1994, with all other variables equal, is so astonishingly low that other factors must influence this streak. The conflux of free agency, a denser population of players from outside of Canada (the fall of the USSR and 1980’s Miracle on Ice) along with lower levels of taxation in the US are likely influencing factors. Of course, only free agents get to pick their team. These free agent players with the greatest longevity are the highly talented players who have the most impact on their team’s chances of winning the Stanley Cup.

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## ACKNOWLEDGMENTS

The authors would like to collectively acknowledge The School of Data Science and Analytics, a unit of The College of Computing and Software Engineering at Kennesaw State University in metro Atlanta for their support. These fine folks also had to listen to us talk about Hockey in our shared hallways. DeMaio and Frankel do not know the meaning of an indoor voice. We also wish the Krause Group good luck in bringing a third NHL franchise to Atlanta. Flames and Thrashers RIP.

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## APPENDIX A

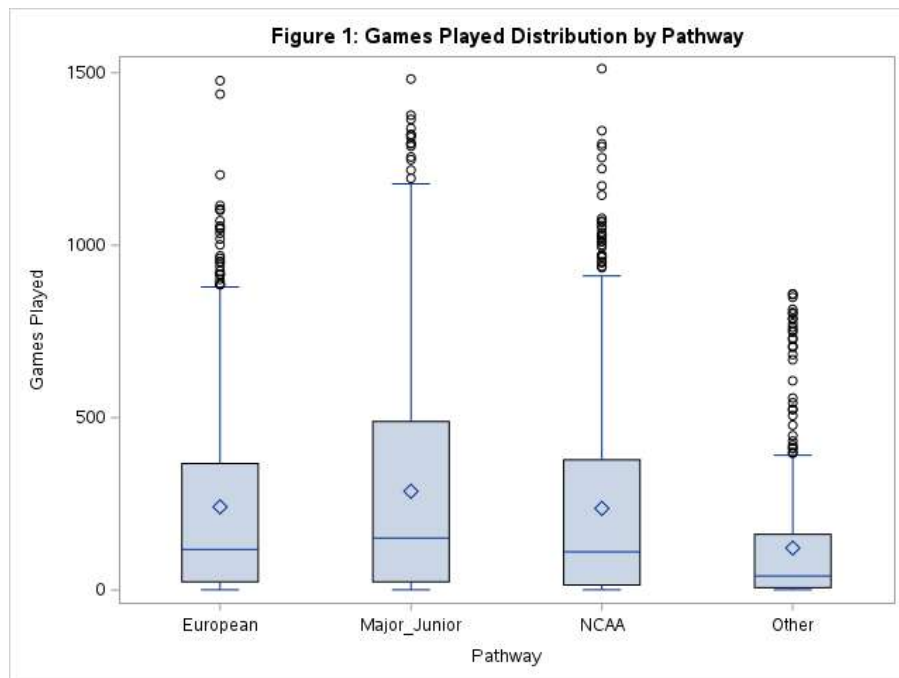
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<a href="#">2023</a>	<a href="#">Vegas Golden Knights</a>	<a href="#">Florida Panthers</a>
<a href="#">2022</a>	<a href="#">Colorado Avalanche</a>	<a href="#">Tampa Bay Lightning</a>
<a href="#">2021</a>	<a href="#">Tampa Bay Lightning</a>	<a href="#">Montreal Canadiens</a>
<a href="#">2020</a>	<a href="#">Tampa Bay Lightning</a>	<a href="#">Dallas Stars</a>
<a href="#">2019</a>	<a href="#">St. Louis Blues</a>	<a href="#">Boston Bruins</a>
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<a href="#">2009</a>	<a href="#">Pittsburgh Penguins</a>	<a href="#">Detroit Red Wings</a>

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<a href="#">2000</a>	<a href="#">New Jersey Devils</a>	<a href="#">Dallas Stars</a>
<a href="#">1999</a>	<a href="#">Dallas Stars</a>	<a href="#">Buffalo Sabres</a>
<a href="#">1998</a>	<a href="#">Detroit Red Wings</a>	<a href="#">Washington Capitals</a>
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<a href="#">1991</a>	<a href="#">Pittsburgh Penguins</a>	<a href="#">Minnesota North Stars</a>
<a href="#">1990</a>	<a href="#">Edmonton Oilers</a>	<a href="#">Boston Bruins</a>
<a href="#">1989</a>	<a href="#">Calgary Flames</a>	<a href="#">Montreal Canadiens</a>
<a href="#">1988</a>	<a href="#">Edmonton Oilers</a>	<a href="#">Boston Bruins</a>
<a href="#">1987</a>	<a href="#">Edmonton Oilers</a>	<a href="#">Philadelphia Flyers</a>
<a href="#">1986</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Calgary Flames</a>
<a href="#">1985</a>	<a href="#">Edmonton Oilers</a>	<a href="#">Philadelphia Flyers</a>
<a href="#">1984</a>	<a href="#">Edmonton Oilers</a>	<a href="#">New York Islanders</a>
<a href="#">1983</a>	<a href="#">New York Islanders</a>	<a href="#">Edmonton Oilers</a>
<a href="#">1982</a>	<a href="#">New York Islanders</a>	<a href="#">Vancouver Canucks</a>
<a href="#">1981</a>	<a href="#">New York Islanders</a>	<a href="#">Minnesota North Stars</a>
<a href="#">1980</a>	<a href="#">New York Islanders</a>	<a href="#">Philadelphia Flyers</a>
<a href="#">1979</a>	<a href="#">Montreal Canadiens</a>	<a href="#">New York Rangers</a>
<a href="#">1979</a>	<a href="#">Winnipeg Jets</a>	<a href="#">Edmonton Oilers</a>
<a href="#">1978</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Boston Bruins</a>
<a href="#">1978</a>	<a href="#">Winnipeg Jets</a>	<a href="#">New England Whalers</a>
<a href="#">1977</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Boston Bruins</a>
<a href="#">1977</a>	<a href="#">Quebec Nordiques</a>	<a href="#">Winnipeg Jets</a>
<a href="#">1976</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Philadelphia Flyers</a>
<a href="#">1976</a>	<a href="#">Winnipeg Jets</a>	<a href="#">Houston Aeros</a>
<a href="#">1975</a>	<a href="#">Philadelphia Flyers</a>	<a href="#">Buffalo Sabres</a>
<a href="#">1975</a>	<a href="#">Houston Aeros</a>	<a href="#">Quebec Nordiques</a>
<a href="#">1974</a>	<a href="#">Philadelphia Flyers</a>	<a href="#">Boston Bruins</a>
<a href="#">1974</a>	<a href="#">Houston Aeros</a>	<a href="#">Chicago Cougars</a>

<a href="#">1973</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Chicago Black Hawks</a>
<a href="#">1973</a>	<a href="#">New England Whalers</a>	<a href="#">Winnipeg Jets</a>
<a href="#">1972</a>	<a href="#">Boston Bruins</a>	<a href="#">New York Rangers</a>
<a href="#">1971</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Chicago Black Hawks</a>
<a href="#">1970</a>	<a href="#">Boston Bruins</a>	<a href="#">St. Louis Blues</a>
<a href="#">1969</a>	<a href="#">Montreal Canadiens</a>	<a href="#">St. Louis Blues</a>
<a href="#">1968</a>	<a href="#">Montreal Canadiens</a>	<a href="#">St. Louis Blues</a>
<a href="#">1967</a>	<a href="#">Toronto Maple Leafs</a>	<a href="#">Montreal Canadiens</a>
<a href="#">1966</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Detroit Red Wings</a>
<a href="#">1965</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Chicago Black Hawks</a>
<a href="#">1964</a>	<a href="#">Toronto Maple Leafs</a>	<a href="#">Detroit Red Wings</a>
<a href="#">1963</a>	<a href="#">Toronto Maple Leafs</a>	<a href="#">Detroit Red Wings</a>
<a href="#">1962</a>	<a href="#">Toronto Maple Leafs</a>	<a href="#">Chicago Black Hawks</a>
<a href="#">1961</a>	<a href="#">Chicago Black Hawks</a>	<a href="#">Detroit Red Wings</a>
<a href="#">1960</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Toronto Maple Leafs</a>
<a href="#">1959</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Toronto Maple Leafs</a>
<a href="#">1958</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Boston Bruins</a>
<a href="#">1957</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Boston Bruins</a>
<a href="#">1956</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Detroit Red Wings</a>
<a href="#">1955</a>	<a href="#">Detroit Red Wings</a>	<a href="#">Montreal Canadiens</a>
<a href="#">1954</a>	<a href="#">Detroit Red Wings</a>	<a href="#">Montreal Canadiens</a>
<a href="#">1953</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Boston Bruins</a>
<a href="#">1952</a>	<a href="#">Detroit Red Wings</a>	<a href="#">Montreal Canadiens</a>
<a href="#">1951</a>	<a href="#">Toronto Maple Leafs</a>	<a href="#">Montreal Canadiens</a>
<a href="#">1950</a>	<a href="#">Detroit Red Wings</a>	<a href="#">New York Rangers</a>
<a href="#">1949</a>	<a href="#">Toronto Maple Leafs</a>	<a href="#">Detroit Red Wings</a>
<a href="#">1948</a>	<a href="#">Toronto Maple Leafs</a>	<a href="#">Detroit Red Wings</a>
<a href="#">1947</a>	<a href="#">Toronto Maple Leafs</a>	<a href="#">Montreal Canadiens</a>
<a href="#">1946</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Boston Bruins</a>
<a href="#">1945</a>	<a href="#">Toronto Maple Leafs</a>	<a href="#">Detroit Red Wings</a>
<a href="#">1944</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Chicago Black Hawks</a>
<a href="#">1943</a>	<a href="#">Detroit Red Wings</a>	<a href="#">Boston Bruins</a>
<a href="#">1942</a>	<a href="#">Toronto Maple Leafs</a>	<a href="#">Detroit Red Wings</a>
<a href="#">1941</a>	<a href="#">Boston Bruins</a>	<a href="#">Detroit Red Wings</a>
<a href="#">1940</a>	<a href="#">New York Rangers</a>	<a href="#">Toronto Maple Leafs</a>
<a href="#">1939</a>	<a href="#">Boston Bruins</a>	<a href="#">Toronto Maple Leafs</a>
<a href="#">1938</a>	<a href="#">Chicago Black Hawks</a>	<a href="#">Toronto Maple Leafs</a>
<a href="#">1937</a>	<a href="#">Detroit Red Wings</a>	<a href="#">New York Rangers</a>
<a href="#">1936</a>	<a href="#">Detroit Red Wings</a>	<a href="#">Toronto Maple Leafs</a>
<a href="#">1935</a>	<a href="#">Montreal Maroons</a>	<a href="#">Toronto Maple Leafs</a>
<a href="#">1934</a>	<a href="#">Chicago Black Hawks</a>	<a href="#">Detroit Red Wings</a>

<a href="#">1933</a>	<a href="#">New York Rangers</a>	<a href="#">Toronto Maple Leafs</a>
<a href="#">1932</a>	<a href="#">Toronto Maple Leafs</a>	<a href="#">New York Rangers</a>
<a href="#">1931</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Chicago Black Hawks</a>
<a href="#">1930</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Boston Bruins</a>
<a href="#">1929</a>	<a href="#">Boston Bruins</a>	<a href="#">New York Rangers</a>
<a href="#">1928</a>	<a href="#">New York Rangers</a>	<a href="#">Montreal Maroons</a>
<a href="#">1927</a>	<a href="#">Ottawa Senators</a>	<a href="#">Boston Bruins</a>
<a href="#">1926</a>	<a href="#">Montreal Maroons</a>	<a href="#">Ottawa Senators</a>
<a href="#">1925</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Hamilton Tigers</a>
<a href="#">1924</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Ottawa Senators</a>
<a href="#">1923</a>	<a href="#">Ottawa Senators</a>	<a href="#">Montreal Canadiens</a>
<a href="#">1922</a>	<a href="#">Toronto St. Patricks</a>	<a href="#">Ottawa Senators</a>
<a href="#">1921</a>	<a href="#">Ottawa Senators</a>	<a href="#">Toronto St. Patricks</a>
1920	No NHL playoffs.	
	Ottawa represented NHL,	
	def. PCHA champ Seattle for Stanley Cup.	
<a href="#">1919</a>	<a href="#">Montreal Canadiens</a>	<a href="#">Ottawa Senators</a>
<a href="#">1918</a>	<a href="#">Toronto Arenas</a>	<a href="#">Montreal Canadiens</a>

## APPENDIX B



### Draft Position Analysis: Drafted Players Only (Games Played ~ Draft Position + Pathway)

#### The GLM Procedure

Dependent Variable: games\_played\_x\_num

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	20911982.2	5227995.5	58.90	<.0001
Error	2223	197314258.5	88760.4		
Corrected Total	2227	218226240.6			

R-Square	Coeff Var	Root MSE	games_played_x_num Mean
0.095827	106.8238	297.9268	278.8954

Source	DF	Type I SS	Mean Square	F Value	Pr > F
draft_clean_num	1	14329312.03	14329312.03	161.44	<.0001
Pathway	3	6582670.13	2194223.38	24.72	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
draft_clean_num	1	14391010.30	14391010.30	162.13	<.0001
Pathway	3	6582670.13	2194223.38	24.72	<.0001

Parameter	Estimate		Standard Error	t Value	Pr >  t	95% Confidence Limits	
Intercept	240.7448426	B	19.55198871	12.31	<.0001	202.4027768	279.0869084
draft_clean_num	-1.2002782		0.09426383	-12.73	<.0001	-1.3851306	-1.0154219
Pathway European	139.6217821	B	23.06808579	6.05	<.0001	94.3845345	184.8590297
Pathway Major_Junior	163.8679256	B	20.17713748	8.12	<.0001	124.2999194	203.4359319
Pathway NCAA	172.8934200	B	22.22536997	7.78	<.0001	129.3087649	216.4780752
Pathway Other	0.0000000	B					

#### The MEANS Procedure

Analysis Variable : games_played_x						
Pathway	N Obs	N	Mean	Std Dev	Minimum	Maximum
European	545	545	241.2403670	288.6517834	1.0000000	1477.00
Major_Junior	1194	1194	286.5477387	323.4306876	1.0000000	1482.00
NCAA	801	801	236.8876404	287.1627280	1.0000000	1512.00
Other	371	371	122.0781671	187.4062557	1.0000000	859.0000000



The GLM Procedure

Class Level Information		
Class	Levels	Values
Pathway	4	European Major_Junior NCAA Other

Number of Observations Read	2911
Number of Observations Used	2911

The GLM Procedure

Dependent Variable: games\_played\_x

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	7720155.1	2573385.0	30.03	<.0001
Error	2907	249087393.9	85685.4		
Corrected Total	2910	256807549.0			

R-Square	Coeff Var	Root MSE	games_played_x Mean
0.030062	120.2438	292.7206	243.4394

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Pathway	3	7720155.137	2573385.046	30.03	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Pathway	3	7720155.137	2573385.046	30.03	<.0001

Table 1: NHL Player Distributions by Pathway & Draft Status

Pathway	Count	Percentage	Draft	Undrafted
Major Junior	1194	41%	1015	179
Europe	545	18.7%	417	128
NCAA	801	27.5%	518	283
Other	371	12.7%	278	93
Total	2911	100%	2228	683

Table 2: Average NHL Games Played by Pathway and Draft Position

Pathway	Early Draft	Late Draft	Early Draft Count	Late Draft Count	Drafted Avg Games	Undrafted Avg Games
Major Junior	350.28	223.99	703	312	311.46	145.27
European	329.32	192.57	265	152	279.48	114.67
NCAA	358.18	211.99	274	244	289.33	140.90
Other	173.78	37.98	183	95	139.68	69.46