

Should I turn pro?

A study of the probability of success in a professional golf venture for male players within
the top 150 on WAGR

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1 Introduction

1.1 About me

I, David Lundgren, am a Swedish golfer with amateur status who, among other things, has represented the Swedish junior and amateur national team. So far in my career, I have won silver in the European Team Championships for amateurs, bronze in the European Team Championships for boys, been the best amateur on the order of merit on the Nordic professional tour, represented Europe in St. Andrews Trophy, played on the DP World Tour (European Tour) and achieved several top finishes in international amateur competitions including top 10 finishes in the Spanish, Scottish, Welsh and Austrian Amateur Championships.

I believe I am currently pursuing a relatively unique venture as a European amateur golfer by, among other things, working with a full-time coach. This arrangement gives me the opportunity to largely work in the same way as the best professional players in the world and thus give me the best conditions to reach my goals in golf.

I have chosen to keep my amateur status for the time being, even though it would financially be more beneficial to be a professional. Despite higher costs and lower income, the reason for me to remain an amateur is that I see it as more developmental to play the major international amateur competitions than to play on the smaller professional tours. My goal is to reach at least top 250 on WAGR (World Amateur Ranking, www.wagr.com) before I consider starting my professional career. This conclusion is largely based on the data presented in this study.

I started playing golf relatively late, but since the age of 15 I have practiced golf to an extent equivalent to a full-time job. This meant that I chose to drop out of high school at the age of 17 to instead build my own academic track record in the form of hand-picked educations and courses, among other things. My priority is golf, but in the background there is also the ambition to develop academically and personally both through an individualized education and by developing other interests. The goal is that when my golf career ends, the venture I am now pursuing will have enabled an optimal education and personal development for me. I simply see my current golf venture as the best education and personal development for me in both the short and long run.

Since the start of my golf venture in 2016, I have worked a lot with statistics to support my development as a golfer. My team and I have spent many hours in, for example, Microsoft Excel to analyze and broaden the knowledge of my golf and my development as a player, based on statistics and data from both training and competition. I feel that this has added a great deal to how I structure my training and has helped me with my development as a golfer. Furthermore, since 2017, I have documented every hour I practiced, both golf and other physical training, and graded each day based on quality and enjoyment. I also document the number of hours of work that I do outside of golf such as administrative work or studies, because my team and I want to have a full overview of my workload. Based on this data, I receive automatically generated advice on load, training and rest, which has hopefully helped me to pursue my venture with an optimal training load to minimize the risk of injury but also to ensure quality and, above all, joy.

I have chosen to carry out this study for three main reasons. On the one hand, my personal interest in golf, especially at the elite level, means that I consider the data in itself very interesting. On the other hand, the conclusions of the study guide me in my own golf efforts and ultimately, I see this work as part of my personal academic development.

1.2 Background

There are currently around 5,500 players on the leading ranking list for amateur golfers, the World Amateur Golf Ranking (WAGR). These are all active players and over the past 52 weeks they have played well enough to qualify for a ranking on WAGR. Only competitions with participants who, through previous achievements, have proven themselves to be amateur golfers at a high level, give ranking points. It is reasonable to assume that a large part of these 5,500 players carry out some kind of serious venture in their golf. Taking into account how many players both drop out and are added to the WAGR each year, in recent years alone there are tens of thousands of amateur golfers who, to varying degrees, had the ambition to take the step from amateur to being able to make a reasonable living as a professional golfer. Only a few succeed.

Despite the large number of amateur golfers who make a commitment to a professional career, many of whom also achieve professional status, only the top 500 or so professional players on the Official World Golf Ranking (OWGR) can de facto make a living from golfing. All that is required to achieve professional status in golf is a registration from

amateur to NA (Non-Amateur) or by applying for membership in the PGA. In the course of conducting this study, I have asked a number of golf coaches who work with professional golfers about which OWGR ranking they consider necessary to achieve in order to make a living from golfing. All respondents agree that the limit is around the top 500 professional golfers in the world. Revenue in the form of both prize money and income from sponsors and partners is then included. Of course, there are golfers outside the top 500 who can also make a living from golfing by having been very successful in obtaining sponsorship. If a golfer is top 500 on the OWGR then according to my research, it is very likely that the player can make a living from their professional golf career.

1.3 Purpose

An obvious question for me, in light of the above, is what makes some players succeed in their professional venture when others do not. The purpose of the present study is to identify a statistically significant point in an amateur golfer's career where they have a reasonable chance of success in such a venture, thereby making it worthwhile to pursue.

1.4 Questions

To fulfill the purpose, the study intends to answer an overarching question, which in turn contains a number of follow-up questions. The questions that the study intends to answer are the following:

1. What is the probability of success as a pro, i.e. reaching top 500 on OWGR, if the player has reached top 150 on WAGR?
 - a. At what ranking on the WAGR is there a good enough chance of achieving a successful professional career that such a venture is reasonable to undertake?
 - b. Is the probability of success as a professional influenced by where the player is geographically from and where he pursues his golf venture?
 - c. Is there any difference in the probability of success depending on the ranking between 1 - 150 that players achieved on WAGR?
 - d. Which countries' players are successful when it comes to going from amateur to professional and why does it differ between countries?

1.5 Method and material

The questions in this study are mainly answered through a very extensive data collection in combination with statistical analysis. In addition to the statistical analysis, the study consists of my personal reflections and conclusions. The analyses, reflections and conclusions have been discussed with two qualified golf coaches who both have solid experience from an international perspective.

The statistics are based on male amateur players who at some point were ranked top 150 on WAGR and who then turned professional. The database contains statistics on players from 1 January 2017 to 31 March 2023, i.e. roughly six years of data and a total of 563 players are in the database.

To be included in the statistics on which the study is based, a player has at some point during his amateur career achieved a ranking within the top 150 on WAGR. This line drawing is based on my own experience and on conversations with experts in the field about what level a player should be at to be considered a very successful amateur. The information collected about each player is:

- Name
- Country
- Date the player turned professional
- Best ranking on WAGR
- If the player is or has been ranked on OWGR
- Best ranking on OWGR
- Whether or not the player has attended college in the United States

The above data has led to a calculation being able to be made on how long it took for the player to go from becoming a professional to being ranked top 500 on OWGR, or players not reaching top 500 on OWGR. Furthermore, through the above data, the players have been able to be divided into geographical areas, such as, for example, the Nordic countries, the British Isles or mainland Europe.

Below is an overview of the geographical areas into which the players have been divided.

- all players (global)
- Europeans
- Europeans excluding Nordic players
- Nordic players (excluding Iceland)

These categories have primarily been chosen to give a Swedish perspective on the study. This has been achieved by breaking out the Nordic players and comparing them with players from the other categories, followed by an analysis of and conclusion about why any differences in the statistics exist. The reason for not only looking at the Swedish statistics is that the data is too small and therefore not statistically reliable. Icelandic players have been excluded from the Nordic players because I have no knowledge of how the Icelandic Golf Association conducts its business. However, I know that the Swedish, Danish, Norwegian and Finnish golf federations conduct their activities in a similar way regarding competitions and support. This makes it reasonable to combine the statistics of these countries in order to obtain a larger statistical basis.

The specific statistics that have been produced for the Nordic region can also be produced for other countries or geographical regions.

Finally, the players have also been divided into two groups, a group of players who attended college in the United States and a group who did not attend college in the United States.

Number of players and from which countries

In total, the database consists of 563 players who have at some point been top 500 on WAGR and then turned pro. The breakdown per country is as follows:

Numerical order

USA	233
England	53
Australia	37
Japan	17
Germany	16
France	14
South Africa	14
Denmark	13
Spain	12
Sweden	11
New Zealand	11
Scotland	10
Thailand	10
Italy	9
Ireland	9
Finland	8
Austria	7
Chile	7
Netherlands	6
Canada	6
China	6
Colombia	4
Taiwan	4
India	3
South Korea	3
Wales	3
Norway	3
Argentina	3
Costa Rica	3
Venezuela	3
Iceland	2
Hong Kong	2
Peru	2
Northern Ireland	2
Poland	1
Mexico	1
Singapore	1
Philippines	1
Switzerland	1
Brazil	1
Bolivia	1
Serbia	1
Czech Republic	1
Dominican Republic	1
Morocco	1
Slovenia	1
Portugal	1
Malaysia	1
Indonesia	1
Zimbabwe	1
Saudi Arabia	1

Alphabetical order

Argentina	3
Australia	37
Austria	7
Bolivia	1
Brazil	1
Canada	6
Chile	7
China	6
Colombia	4
Costa Rica	3
Czech Republic	1
Denmark	13
Dominican Republic	1
England	53
Finland	8
France	14
Germany	16
Hong Kong	2
Iceland	2
India	3
Indonesia	1
Ireland	9
Italy	9
Japan	17
Malaysia	1
Mexico	1
Morocco	1
Netherlands	6
New Zealand	11
Northern Ireland	2
Norway	3
Peru	2
Philippines	1
Poland	1
Portugal	1
Saudi Arabia	1
Scotland	10
Serbia	1
Singapore	1
Slovenia	1
South Africa	14
South Korea	3
Spain	12
Sweden	11
Switzerland	1
Taiwan	4
Thailand	10
USA	233
Venezuela	3
Wales	3
Zimbabwe	1

1.6 Significance analysis

In order to determine the statistical significance of the study's findings, P-values were calculated. The P-value represents the probability, assuming no effect or difference (null hypothesis), of obtaining a result equal to or more extreme than the observed result. It serves as a measure of whether the results could have occurred by chance or if there is a genuine underlying difference.

A significance level of .05 was chosen, which is widely accepted in sample surveys. This means that data with a P-value lower than .05 is considered statistically reliable. Upon reviewing the P-values, it was found that all statistics in the study, except for one, yielded P-values lower than .05, indicating statistical significance.

For instance, the statistics for European players (excluding Nordic players) who have been professionals for four years, consisting of 23 players, showed a P-value of .00, signifying complete statistical significance. Similarly, the statistics for Nordic players (excluding Iceland) who have been professional for three years, involving eleven players, exhibited a P-value of .016, indicating clear statistical significance. The only statistic that did not reach statistical significance was the group of Nordic players (excluding Iceland) who have been professional for four years, comprising six players. This particular statistic yielded a P-value of .156

1.7 Limitations

The study has focused on answering the questions regarding players who have at some point been ranked top 150 on WAGR. For example, examining the probability of success for players who have been top 500 on WAGR has not been addressed in this study, mainly due to the large data collection that would have been required. Furthermore, factors such as individual circumstances to pursue their professional venture have also not been taken into account.

The study has also been limited to male players. This has been done for time consumption reasons and because it was more interesting for me as a male player to see the statistics for males. Of course, the same study can be done for women.

In conclusion, the study has been limited to players who became professionals after January 1, 2018, even though all data is collected from January 1, 2017. The reason is that I want to keep the statistics as current as possible. Since there is enough data for statistical significance from January 1, 2018, I have chosen this date as the starting date.

2 The ranking systems

2.1 The World Amateur Golf Ranking (WAGR)

The World Amateur Golf Ranking (WAGR) was introduced in 2006 by "The R&A". The ranking is based on approximately 2,600 competitions annually. This means that not all amateur competitions use the WAGR system, but it is up to each individual competition to apply to be part of it. In order for a competition to have the opportunity to be part of the WAGR system, it is required that the competition be played over at least 54 holes. The ranking is global and is considered the official ranking system for amateurs. There are about 5,500 players from more than 100 countries on the ranking. The ranking is based on the player's average points during a rolling 24-month period and the system is based on dividing the number of competitions by the total sum of points from all the competitions played by the player. The one with the highest average over the current rolling period of 24 months is ranked highest. The number of points awarded for each competition depends on how strong the starting field is in each individual competition. Based on the strength of the starting field, the competitions receive a strength (power), which in turn controls the number of points awarded. This means that the more high-ranked players that participate, the more points are awarded, while of course there are tougher opponents, which in turn makes it harder to finish in a high position. An example is the 2022 US Amateur. This is the largest amateur competition and it had a power of 996.2, with the winner receiving 24.9 points for the competition. This can be compared with the Swedish junior stroke play championship, which is Sweden's largest amateur competition and which had a power of 66.9 and where the winner received 8.7 points.

By entering competitions that use the WAGR system, there is an opportunity to enter the ranking system. This requires that a player has been awarded at least 6.5 points in a WAGR competition. It can be compared to what a player who is in the top 250 on the ranking has as his average points per competition, which is also about 6.5. In other words, which placement is required in a competition to gain WAGR status depends on how strong the starting field is in the competition. Players can also exit the WAGR system, which occurs when a player has not received more than 4.0 points in a competition in the last 52 weeks.

2.2 Official World Golf Ranking

The Official World Golf Ranking (OWGR) is the official ranking list for professionals and started in 1986. The OWGR is based on individual performance over a rolling two-year period. The player with the highest point average per competition over this period is the one ranked highest. Currently, there are 23 professional tours that are part of the OWGR. The world ranking is used in several different ways, but above all, it is used to determine which players qualify for the major competitions. Being ranked in the top 50 in the world is a clear goal for most professional golfers, as it provides the opportunity to play in all the major professional competitions. However, there are significantly more professional golfers who can make a living, than just the 50 best in the world. As previously described, according to my analysis, it is reasonable to assume that if a player is ranked within the top 500 in the world rankings, then the player can make a living from golfing.

3 What are the potential benefits of not turning professional early in one's career?

The period as an amateur is in many ways a preparation phase for a possible upcoming professional career. Amateurs are naturally mostly young golfers and therefore develop considerably in a relatively short time. If a player has managed to climb high in the amateur rankings, he gains a variety of new experiences that are important to take with him into professional golf. This includes everything from the first major international competitions to the first national team assignments. Generally speaking, it can be said that very talented amateurs get the opportunity to play significantly more challenging competitions on tougher and better courses, with better organization, than players who choose to become professionals earlier. In the case of an early transition to pro, players will normally play on one of the lower regional professional tours and then on worse courses with worse organization as well as being met with less competition. In order to be well prepared for professional golf, it is necessary to face the challenges that can be had at the very highest amateur level. These challenges result in a great variety of experiences, which together provide a good insight into and preparation for professional golf.

Opportunity for education and college golf in the USA

There are many reasons to remain an amateur during the early phase of your golf career. One of the biggest reasons for many is to enable playing and studying at college in the US. In order to do so, the players must remain amateur until their college studies are completed. Most players who, during their time in college, managed to achieve a high ranking on the WAGR then choose to turn professional immediately.

There are players who choose not to go to college, but still choose to remain amateur. There can be several reasons for this. Among other things, it can differ depending on where in Europe a player is from. For example, talented Swedish amateurs are often asked to play and study at college in the USA, which in my opinion is not the case to the same extent for players from, for example, England or France. One reason for this may be that the domestic opportunities to play major amateur competitions in, for example, England and France are significantly better than in Sweden. Furthermore, the climate and thereby the length of the season in southern Europe in particular is significantly longer than in, for example, Sweden, which enables both better training and competition opportunities. In conclusion, it can be

mentioned that the population in the Nordic countries are generally very good at English, which cannot necessarily be said to the same extent for southern Europe. Thus, the barriers are likely to be lower for Nordic players to go to the USA to study than for players who do not speak English as well.

Choosing not to go to college

A European player who chooses to remain an amateur, but who does not choose to study at college, needs to find his own solutions to play the major amateur competitions. If you do not have your own financial resources to do this or a full-scale financial support from the national golf association, it is very difficult to be able to implement such a venture. As described above, it is in my opinion, of the utmost importance to have the opportunity to play the major amateur competitions on one's continent, but also to play intercontinentally. Having the opportunity to play on tough championship courses against the best amateur players in the world is of course very developing for a player. Players who choose to turn professional early in their careers, for example straight out of high school, usually enter the professional career without any experience from such competitions and at the same time often have to start at the lowest level of professional tours. There, the competitions are not normally played on courses that maintain the same high level or offer the same challenge as at the major international amateur and professional competitions. An early professional venture also often means that the player is put under great financial pressure in the form of constantly having a need to win prize money at smaller competitions in order to be able to continue their venture. In order to earn enough money in these competitions, top positions are also required. This can result in the player rushing into decisions regarding his career that do not favor long-term development and thus result in suboptimal development as a golfer.

Of course, not everyone has the financial means to travel internationally to play the major amateur competitions. The players who do not have this opportunity, either through the support of the national team or family, usually choose to study at college. Namely, the college offers scholarships to talented amateur players, which means that the school pays for schooling and associated activities, such as for example everything golf related. Most of the Scandinavian amateur players who play at a high level in amateur golf receive a scholarship at a good school, that is, at a school that plays in the highest or second highest division in the US.

High level at the major amateur competitions

As previously described, the major amateur competitions, including the college competitions, maintain a very high level. Everything from the course to the organization around the competition is in the same class as the best professional tours. In addition, there is often a lot of media interest in the major amateur competitions, which means that the players also get a certain insight into how to deal with the media. These things are very important for development on the way to a future professional life. Even if the level of the players is a little worse than on the best professional tours, for the reasons just mentioned it is very developmental to play this type of competition.

National team opportunities

Being an amateur also opens up an opportunity to play for your country, i.e. play for the national team. It is usually very rewarding and developing to play in the national team because the players are obviously exposed to more pressure and nervousness when you play for your country and not just for yourself. In addition, the national team assignments often take place in a very developing environment in the form of challenging courses, professional organization as well as training and sparring with experienced coaches. In addition, the players have an opportunity to be selected to play continental and intercontinental championships such as the European or Asian championships and world championships, which of course is something many have as a personal goal or dream. Many national federations often also offer help in the form of financial support to the players.

Potentially easier start to professional career

An additional reason why it can be beneficial to remain an amateur a little longer is that it will be an easier start to the professional career in the event that an amateur player manages to become highly ranked on WAGR. This is thanks to the fact that, for example, management companies are happy to sign contracts with the player in these cases. Such agreements mean that the management companies support the player by helping with sponsorship agreements, administration and invitations to major professional competitions. These invitations are obtained by the management companies through cooperation with specific competitions or tours. For this work, the management companies usually receive a fixed fee from the player in combination with a portion of the player's future earnings. However, it could also be the case that the tours try to attract new talent on their own and therefore offer special starting spots to some of the best amateurs. These invitations greatly facilitate the player at the

beginning of the professional career, especially if the player has no card on a tour. Players usually get a card, or status, on a tour by qualifying for the tour through special qualifying competitions. Alternatively, the player can obtain a category on the tour by performing well enough when he receives invitations and thereby obtain a lot of points in only a few events. Thus, by playing well in a few starts on the PGA Tour or DP World Tour to which they received invitations, a player can qualify for those tours directly, that is, without having to play qualifiers. Such was the case for Collin Morikawa, John Rahm and Mathew Wolf, for example, when they entered the PGA Tour directly after going from amateur to professional.

New amateur rules

On January 1, 2022, the amateur rules were changed, which has opened up many new opportunities as an amateur player. The big change is that amateur players can now receive all types of sponsorship. As a result, golfers can earn an income already as an amateur, which was not allowed before. Prize money is now also allowed to be received, albeit to a limited level of €700 per competition. Since the rule change has only recently been introduced, it is not yet possible to demonstrate how the possibility of primarily receiving sponsorship and partnership income as an amateur will change amateur golf, but in my opinion, it feels very likely that positive changes for talented amateur golfers will take place in the near future.

4 Reporting of data

The study is based on the data produced in the survey regarding how the transition has gone for players who have taken the step from amateur to professional. This has, as described in detail in the study's section on method and material, been done by following all players who have at some time been top 150 on WAGR during the period January 2018 to March 2023 and during this period have gone from amateur to professional. During this work, interesting statistics have emerged from the data, which could be beneficial for people who are in some way involved in amateur golf and involved in a decision about when an amateur golfer should turn professional. These statistics and their conclusions will be presented and discussed in future chapters.

During the course of the work, further possible in-depth studies have emerged which will possibly be carried out in the future. These are presented later in the study under the heading "Proposals for further studies".

4.1 From Amateur to Professional

After one year:

When the statistics for the first year are reviewed, it shows how all the players have fared in their first year as a professional. More specifically, whether they manage to create a financially sustainable situation, that is, whether they manage to reach the top 500 on OWGR, already in the first year or not. Below is an overview of how the statistics look for the different geographical areas.

All players

Number of players who reached the top 500	61
Number of players who have been professionals for one year	357
Percentage of players who reached the top 500 in a year	17 %

European players

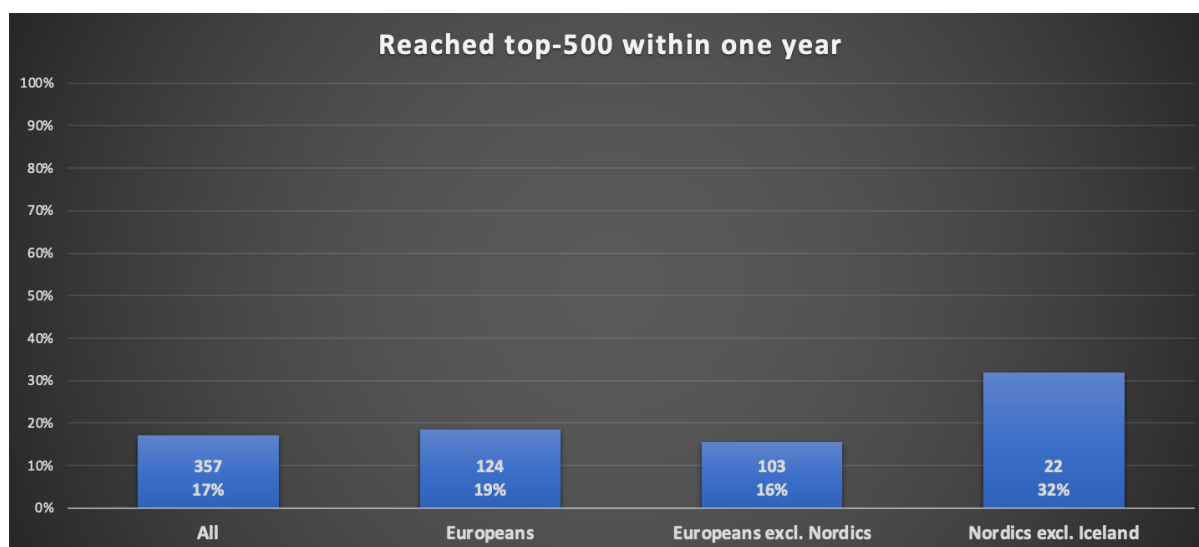
Number of players who reached the top 500	23
Number of players who have been professionals for one year	124
Percentage of players who reached the top 500 in a year	19 %

European players excluding Nordic players

Number of players who reached the top 500	16
Number of players who have been professionals for one year	103
Percentage of players who reached the top 500 in a year	16 %

Nordic players (excl. Iceland)

Number of players who reached the top 500	7
Number of players who have been professionals for one year	22
Percentage of players who reached the top 500 in a year	32 %



Of all players globally, **17%** reached the top 500 in the first year. Europe has marginally better statistics as **19%** of European players reached the top 500 in the first year. In my opinion, this marginal difference gives no reason for further analysis.

Of the Nordic players, **32%** have reached the top 500 within a year. This compares with **16%** of players from Europe, excluding Nordic players. There is thus a significant difference that is interesting to analyze and comment on. The fact that Nordic players are more successful than others can of course be based on several different reasons. The most likely reason, in my opinion, is that Nordic players receive a longer and better education during their amateur career. From the age of about sixteen, most Nordic amateur players go with the ambition of becoming a professional, an eight to nine-year education with a focus on golf. This begins with studies at a golf high school in the player's home country, which involves three to four years of highly professional training. After that, most continue their studies in college in the United States, which means another four to five years of professional training and education. This means that the players become very mature and are thus better prepared for professional golf. In my opinion, the Nordic players get, for example, better preparation on how to deal with the transition from amateur to professional. This is because the Nordic golf federations are significantly better at preparing the players for the transition from amateur to professional, which in turn means that the Nordic players are probably better prepared to deal with the new situations that arise in connection with a professional venture. The federations also remain and help the players once they have become professionals in a number of ways. Such as helping the players with invitations to professional tours as well as several yearly

camps where they gather amateurs and professionals together. These camps are organized so that talented amateurs, together with both newcomers and experienced professionals, will have the opportunity to train and compete together, where one of the main aims is to develop the amateurs. My understanding is that for example, in the British Isles, the federations release the players immediately when they turn professional and thus all support and support from the federation also disappears. This means that the players stand completely on their own two feet when they become professionals, which they are not used to. It will likely be a very big adjustment, which probably makes it more difficult to succeed compared to the Nordic players.

After two years:

All players

Number of players who reached the top 500	70
Number of players who have been professionals for two years	259
Percentage of players who reached the top 500 in two years	27 %

European players

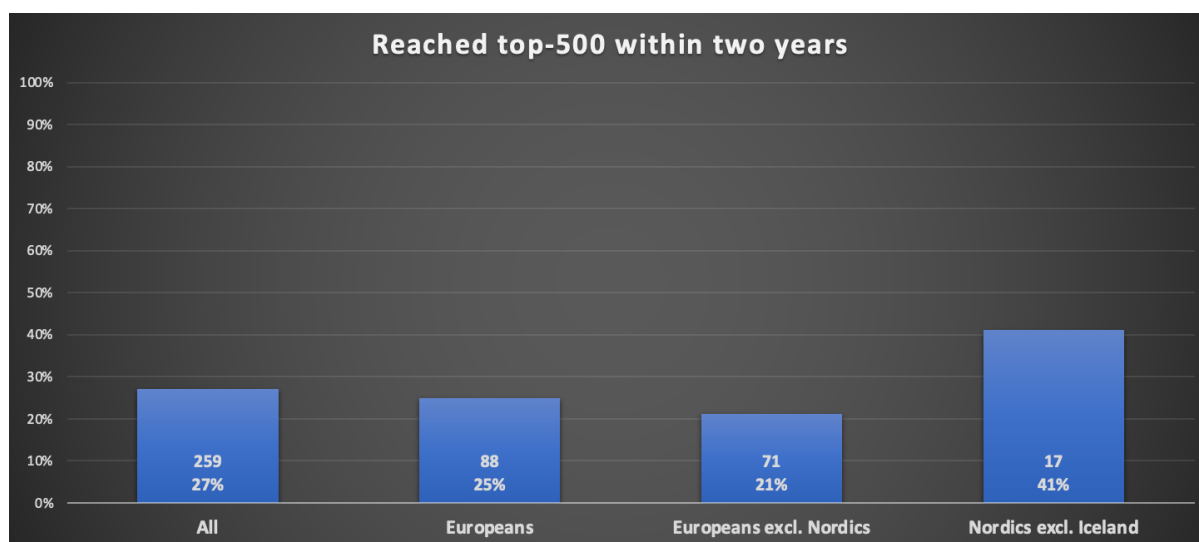
Number of players who reached the top 500	22
Number of players who have been professionals for two years	88
Percentage of players who reached the top 500 in two years	25 %

European players excluding Nordic players

Number of players who reached the top 500	15
Number of players who have been professionals for two years	71
Percentage of players who reached the top 500 in two years	21 %

Nordic players (excl. Iceland)

Number of players who reached the top 500	7
Number of players who have been professionals for two years	17
Percentage of players who reached the top 500 in two years	41 %



After two years, the percentage of players reaching the top 500 has increased compared to after one year, from **18%** to **27%**. The percentage has also increased among the European players, from **19%** to **25%**. Still, the difference between the world and Europe is very small, which means that there is no reason to analyze this further.

The differences between all players and European players, excluding Nordic ones, in terms of where the players come from within Europe become even clearer. The percentage of Nordic players who manage to break into the top 500 has increased by **9%**, from **32%** to **41%**, while all European players have only increased by **6%**. This strengthens the assumption that the Nordic players have received better preparation over a longer period of time and receive continued support from the federations in their efforts also as professionals over a longer period.

After three years:

All players

Number of players who reached the top 500	63
Number of players who have been professionals for three years	176
Percentage of players who reached the top 500 in three years	36 %

European players

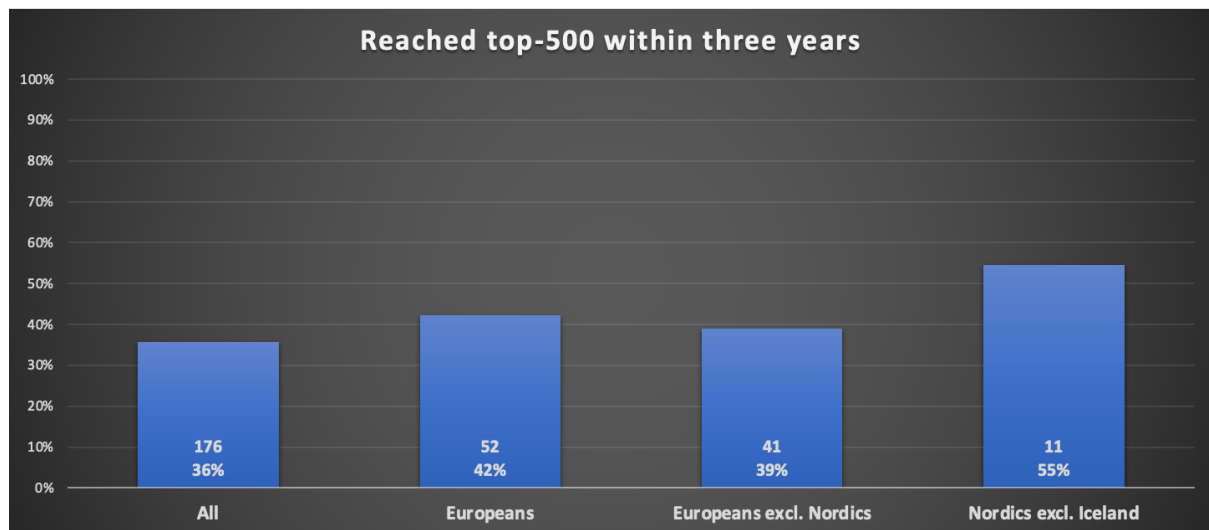
Number of players who reached the top 500	22
Number of players who have been professionals for three years	52
Percentage of players who reached the top 500 in three years	42 %

European players excluding Nordic players

Number of players who reached the top 500	16
Number of players who have been professionals for three years	41
Percentage of players who reached the top 500 in three years	39 %

Nordic players (excl. Iceland)

Number of players who reached the top 500	6
Number of players who have been professionals for three years	11
Percentage of players who reached the top 500 in three years	55 %



We can see in the table above that **42%** of all European players have reached the top 500 while **36%** of all players globally have reached the top 500. If you were to exclude the European players from all players, the difference would be even greater. This means that it is the first time that a relevant difference is seen between all players and European players.

The Nordic players have continued to have a significantly higher percentage than the rest of Europe, which is assumed to be due to the reasons described earlier.

After four years:

All players

Number of players who reached the top 500	45
Number of players who have been professionals for four years	100
Percentage of players who reached the top 500 in four years	45 %

European players

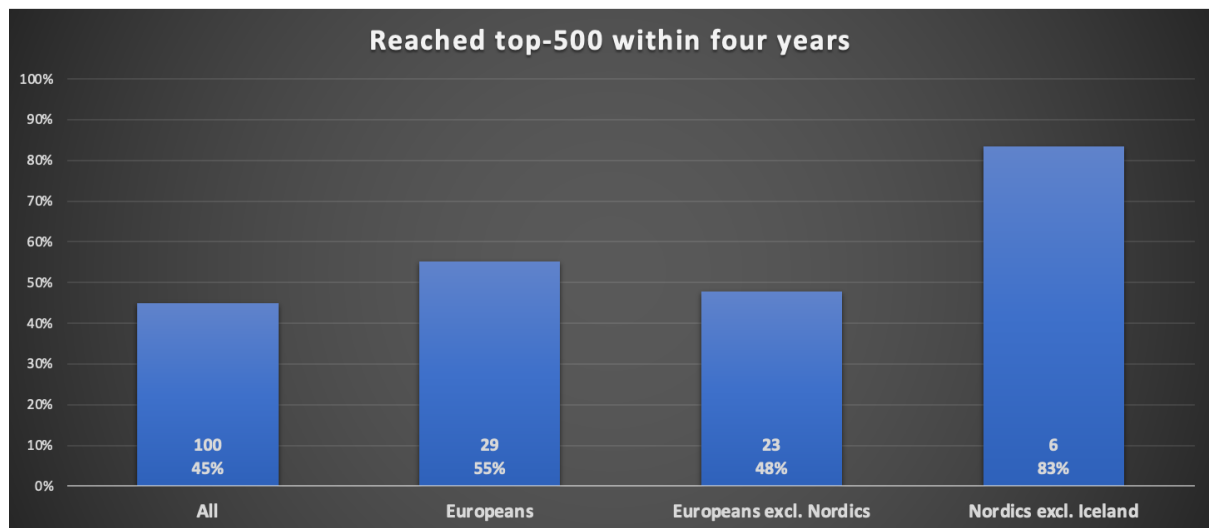
Number of players who reached the top 500	16
Number of players who have been professionals for four years	29
Percentage of players who reached the top 500 in four years	55 %

European players excluding Nordic players

Number of players who reached the top 500	11
Number of players who have been professionals for four years	23
Percentage of players who reached the top 500 in four years	48 %

Nordic players (excl. Iceland)

Number of players who reached the top 500	5
Number of players who have been professionals for four years	6
Percentage of players who reached the top 500 in four years	83 %



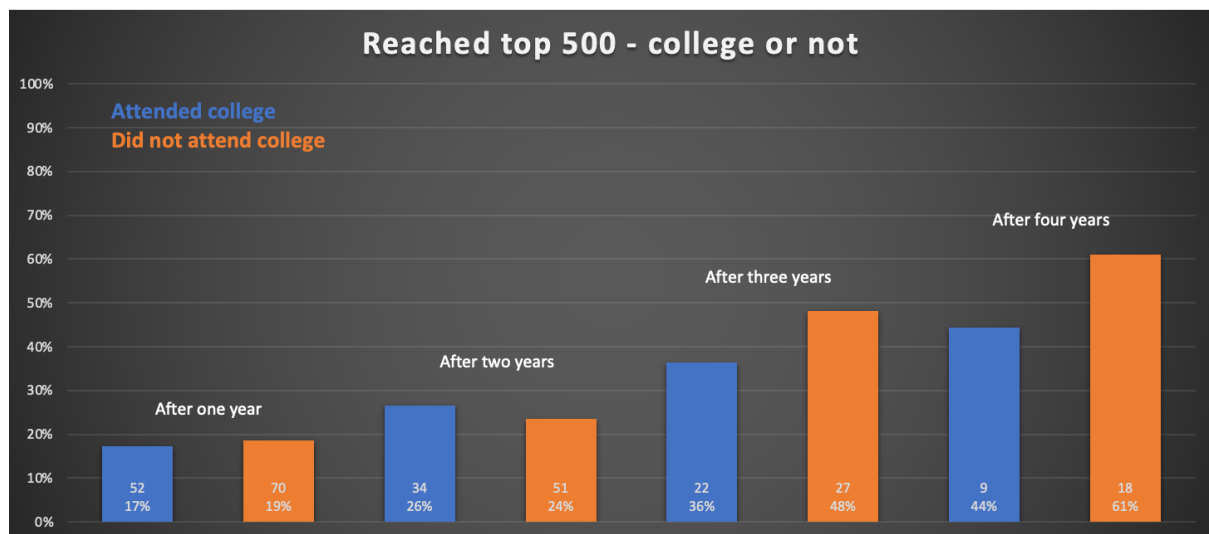
45% of all players have reached the top 500 on OWGR after four years. This represents a continued large increase compared to year three (**36%**) and thus a player making a professional venture should always consider trying to finance their venture over at least four years and not just three years. As for all European players, **55%** of them reached the top 500. This means that the gap between all global players and European players has continued to increase slightly from year three.

In year four, there are very few players (**6**) in the Nordic players category (excl. Iceland), which means that the data is not statistically significant (the only P-value above .05), but it follows the trend from previous years, which should mean that the trend is correct.

Currently, there is data for four years, which means that it is not yet possible to determine whether the chances of reaching the top 500 on OWGR even after five years increase significantly. How long a player can continue his professional venture without reaching the top 500, i.e. not reaching income that covers the costs, of course depends on the financial conditions the player has. However, the statistics clearly show that for every year that goes up to at least four years, the chances increase significantly.

4.2 Are college players more likely to succeed as professionals?

It has previously been mentioned that statistics were produced regarding the difference between amateurs who attended college in the US, compared to players who chose not to attend college in the US in terms of reaching the top 500 on the OWGR. In this case, only European players have been included in the statistics because the absolute majority of US amateurs choose to go to college. This means that it would not provide any interesting information in the event that the US players would have been included in these statistics.



The statistic, which is illustrated in the chart above, shows that **17%** of players who attended college reached the top 500 on OWGR after one year while **19%** who did not attend college reached the top 500. After two years, the corresponding statistic is **26%** vs. **24%** while that after three years is **36%** versus **48%**. In conclusion, after four years, **44%** of players who attended college ranked in the top 500 on the OWGR, while **61%** of non-college players ranked in the top 500.

Non-college players are slightly more successful in reaching the top 500 on the OWGR. However, it should be emphasized that there is no clear difference, which indicates that there is no right or wrong way. This conclusion may seem inconsequential, but on reflection, the fact that there is no right or wrong way can be an important point for young amateur golfers. According to my experience, there is a widespread opinion, in Europe but especially in Sweden, that a player should go to college if the player makes a serious venture in his future golf career. However, it is a big step to move to the US as a teenager and can certainly be a

deterrent for some. This fact may even be a reason why players choose not to pursue golf after high school. For this reason, it may be important to know that, according to the statistics, the professional venture did not go better for the European players who chose to go to college, but the opposite. However, it should be emphasized that college is the best path to choose financially for most players, as it is very expensive to pursue a venture of the same caliber in Europe which usually has to be paid for yourself. Additionally, if players choose to pursue their amateur venture in college, players receive an education while being given the opportunity to wager on golf. This is significantly more difficult for a European player who chooses to conduct his venture in Europe. Most of the time, the player has to find an education on his own, which results in it becoming more difficult to combine studies with golf.

It is important to keep in mind when comparing statistics from WAGR between college players and other amateurs, that historically it has been easier to get a better ranking on WAGR for the players who attended a highly ranked college. This has been due to the fact that the best schools in the US play very good competitions with sometimes relatively small starting fields. Historically, this has resulted in the bottom placings in these competitions giving a much higher score than if compared to the major amateur competitions in Europe. That is, there has been a significant difference in the number of points awarded for average or poor performance in college competitions compared to European competitions. This even if the pure performances were equivalent. This bias in the WAGR system has been confirmed by the fact that from 1 January 2023 WAGR has changed its rules in an attempt to counteract this by having the lowest placed players in WAGR events after this date receive a lower score than before, even in a smaller starting field. Thus, this change will have the greatest impact in the US where the starting fields as mentioned are often smaller. It remains to be seen what effect this has, but it is conceivable that there will still be some difference in how difficult it is to achieve a high WAGR ranking for other players compared to players who chose to go to college as the number of large WAGR competitions in the US are significantly more than in Europe.

The above reasoning should, in my opinion, mean that, for example, the average Nordic player who has reached the top 150 on WAGR is a slightly better golfer than the average American player who has also reached the top 150 on WAGR. This assumption is confirmed by the fact that a US player needs to have reached the top 26 on WAGR to have the same

percentage chance of reaching the top 500 on OWGR within three years as a top 150 player from the Nordic countries.

Nordic players (excl. Iceland)	Procentuell möjlighet att nå topp 500	Percentage chance of reaching the top 500	Percentage chance of reaching the top 500
		Top 26 WAGR	56 %
Top 150 WAGR	55 %		
		Top 30 WAGR	54 %
		Top 50 WAGR	50 %

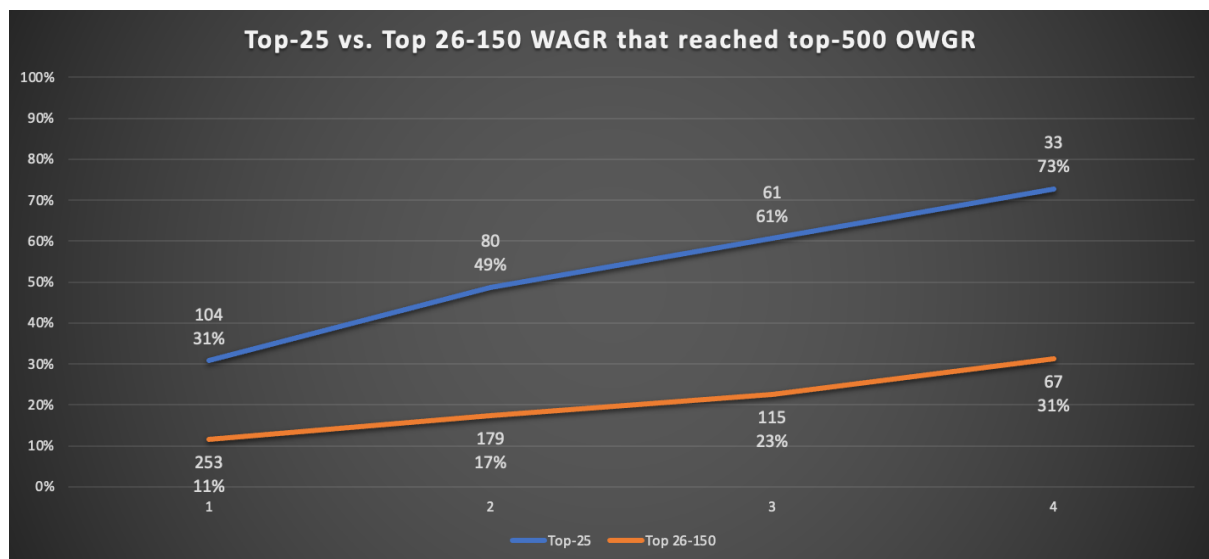
4.3 Top 25 players on WAGR

By studying the players who were top 25 on WAGR and comparing these with other players within the top 150, i.e. ranking position 26-150, you can investigate whether there is a significantly greater probability of success the better ranked you are.

If you study the first year and players who have been top 25 on WAGR at some point, there are **32** out of **104** players who have reached the top 500 on OWGR, that is **31%**. Among the players who have been ranked between 26-150 places on WAGR, there are **29** out of **253** players who have managed to break into the top 500 on OWGR, which is therefore **11%**. It is thus clear that there is a significantly greater probability of reaching top 500 on OWGR in the first year, if one has been top 25 on WAGR, a difference of **20%**.

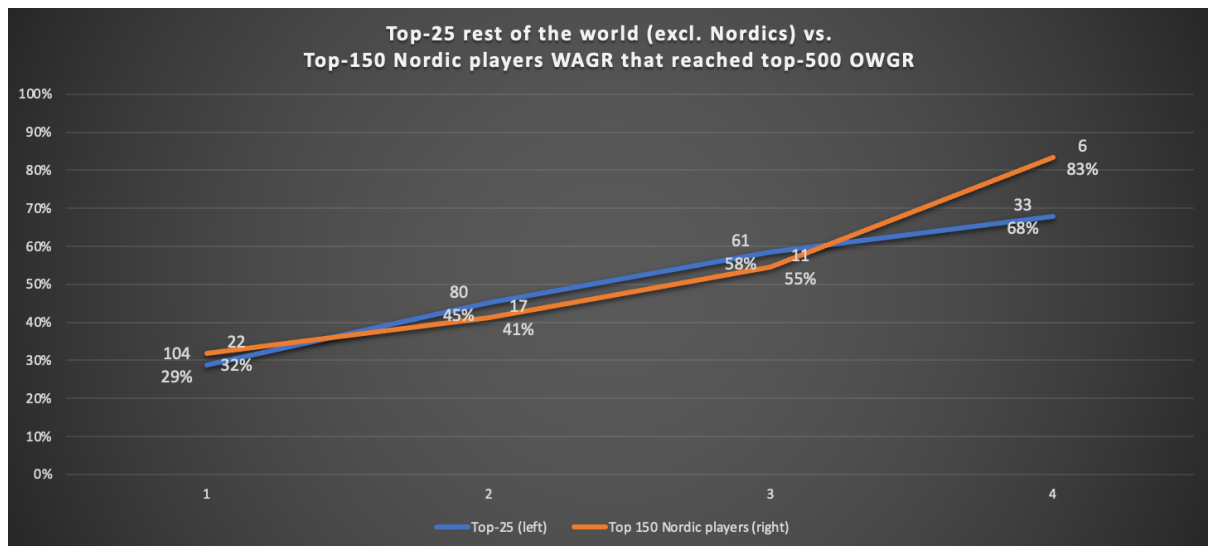
In the second year, the statistics look as follows. **39** out of **80** players who have been top 25 on WAGR have reached the top 500 on OWGR, that is **49%**. This compared to **17%** of players between positions **26-150**. Thus, a difference of **32%**. For the third year, **37** out of **61** players have managed to get into the top 500 on OWGR, that is **61%**. Compared to the players who have been ranked between places 26-150 on WAGR, **23%** have reached the top 500. That gives a difference of **38%**. In the fourth year, you see that **24** out of **33** players have made it into the top 500 on OWGR, that is **73%**. This should be compared to **31%** for the players between 26-150. A difference of **42%**.

Below is a line chart showing the difference between the group of players who were top 25 when they turned professional and the group of players between top 26-150 on WAGR.



The conclusions that can be drawn from the statistics presented above is that the probability of success as a professional is significantly greater for a player who has been top 25 on WAGR during his amateur career compared to a player who has been ranked 26-150. This is not entirely unexpected as a player ranked in the top 25 in WAGR must in most cases be assumed to be a significantly better golfer. Players who have been in the top 25 have most likely also had an easier start to their professional career by having received better and more offers from the management companies in the form of, among other things, invitations to professional competitions in accordance with what was described earlier in the study under the heading "Easier start on the professional career".

In conclusion, the chart below shows an interesting observation. The chart shows that it is just as likely to reach the top 500 on OWGR if you are a top 150 player on WAGR from the Nordics compared to being a top 25 player from the rest of the world. This further strengthens the thesis that the Nordic players are generally better than their rankings might indicate and receive better support from the federation in the transition from amateur to professional compared to the rest of the world.



4.4 Difference between WAGR no. 1 and 150?

In the previous section, the difference in the probability of success was reported between players top 25 on WAGR compared to players ranked 26-150. Here, a clear difference between the two different categories could be discerned. To further investigate whether the probability of success is affected by where on the WAGR range 1 to 150 a player is ranked, all players have been divided into six categories, in intervals of 25 depending on their ranking. This gives us an even clearer picture of how likely it is to succeed as a professional depending on the best ranking the players have achieved on WAGR.

When examining the statistics, there is a clear difference between those who are in the top 50 and the rest, that is 51-150. The statistics show that players ranked 1-50 have a significantly greater probability of succeeding in the transition to professional compared to the players between the positions 51-150. The obvious reason for this difference is that the top 50 players on WAGR are probably simply better golfers. However, there are probably also other reasons why there is a big difference between the two categories. The management companies are more interested in a player who has been ranked high on WAGR, which means that these players get a better offer and more help at the start of their professional career. This leads to more starts on the major professional tours and a better opportunity to collect ranking points and prize money during the beginning of the professional career.

Players that reached top 500 OWGR depending on WAGR position within one year			
Ranking	500 OWGR	Total players	%
Top 25	32	104	31%
25-50	16	66	24%
51-75	3	61	5%
76-100	4	41	10%
101-125	1	53	2%
126-150	5	48	10%

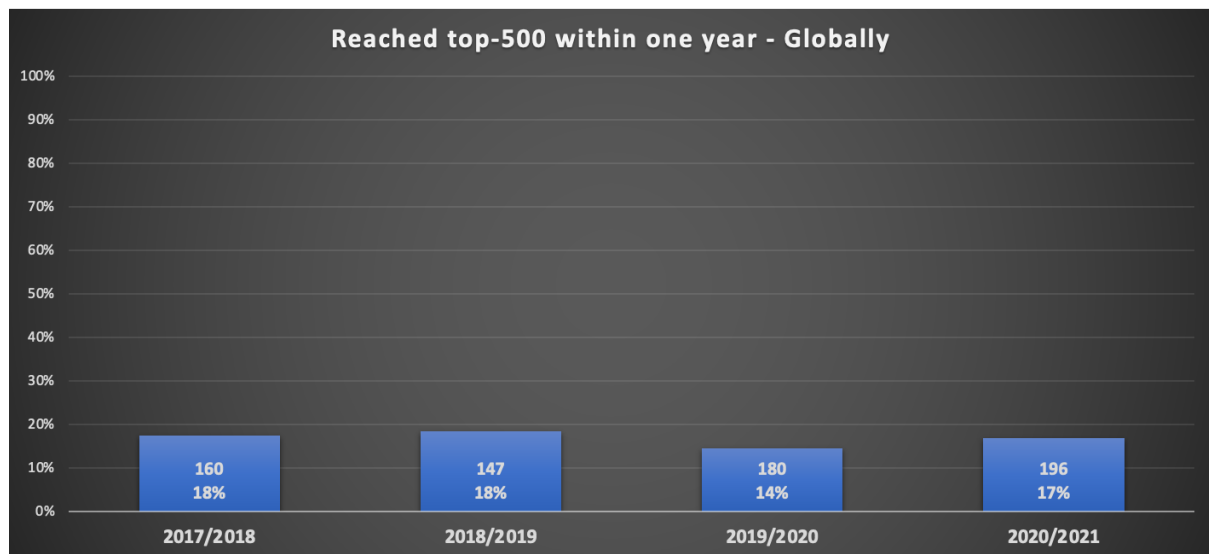
Players that reached top 500 OWGR depending on WAGR position within two years			
Ranking	500 OWGR	Total players	%
Top 25	39	80	49%
25-50	17	47	36%
51-75	5	38	13%
76-100	4	25	16%
101-125	1	42	2%
126-150	4	34	12%

Players that reached top 500 OWGR depending on WAGR position within three years			
Ranking	500 OWGR	Total players	%
Top 25	37	61	61%
25-50	12	33	36%
51-75	5	25	20%
76-100	2	14	14%
101-125	3	28	11%
126-150	4	20	20%

Players that reached top 500 OWGR depending on WAGR position within four years			
Ranking	500 OWGR	Total players	%
Top 25	24	33	73%
25-50	9	19	47%
51-75	3	16	19%
76-100	2	9	22%
101-125	3	15	20%
126-150	4	13	31%

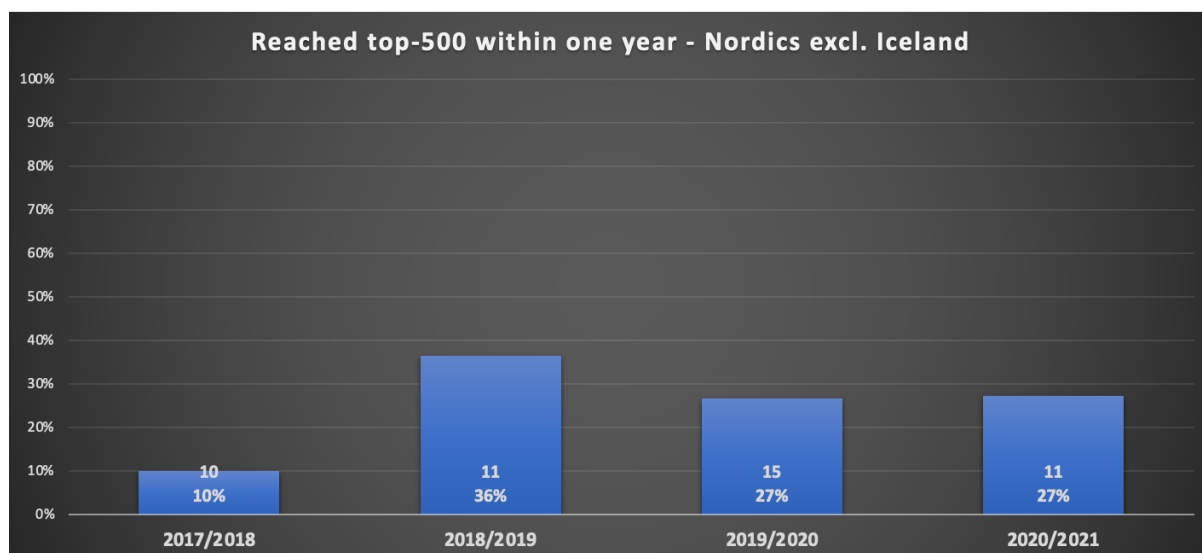
4.5 Have the amateur golfers gotten better?

There is a perception that the amateurs are getting better and better compared to the professional players. To investigate this, the percentage of amateur players to have reached the top 500 on OWGR within a year since 2017, has been studied. In order to get more data and thereby ensure the statistics to the greatest extent possible, this data has been combined for two years per stack.



As can be seen in the above chart, there is no indication that the amateur players have improved in comparison to the professional players. However, it should be made clear here that the statistics, in my opinion, are relatively uncertain. This is due to the fact that the statistics are only based on one year as a professional when sufficient data has not yet been collected to be able to study longer periods of time. In the future this statistic can be built on data from several years as a professional, which will then make it more statistically reliable.

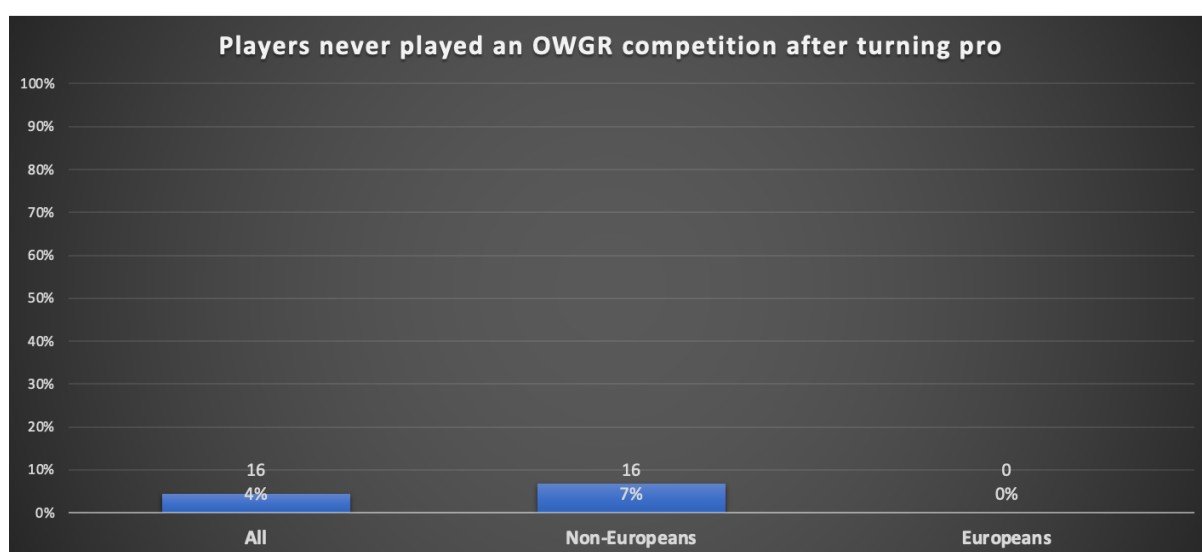
What can possibly be concluded is that amateur players from the Nordics (excl. Iceland) have gotten better and better in comparison to the professional players.



However, there is an even greater uncertainty here than in the previous chart as the statistical basis is less extensive. This too will be able to be studied better in the coming years when the statistical basis has been expanded.

4.6 Players who have never played an OWGR event after turning pro

The chart below shows how many players never played an OWGR event after turning pro. An interesting observation here is that there are no European players (0%) who have not played an OWGR event. While non-Europeans players included in the study who have not played an OWGR event are 7%.



The reason is likely that there are more competitions and levels of professional tours in Europe than in the US that are associated with the OWGR. In the US, there are mainly two developmental tours to the PGA Tour and the Korn Ferry Tour. These are the PGA Tour Canada and the PGA Tour Latinoamérica which can be compared to the level of the Challenge Tour in Europe. This leads to some American players who become professionals never making it to this level, which means they never play a competition included in the OWGR. The fact that there are lower levels of professional tours linked to the OWGR in Europe should also be part of the explanation why European players are more successful in reaching the top 500 on the WAGR than players from the US. The fact that Sweden, Denmark, Norway and Finland have a professional tour that is linked to the OWGR in the form of the Nordic Golf League should also be part of the explanation for why these countries' players are so successful when it comes to reaching the top 500 on the OWGR.

4.7 Which country has the lowest average ranking?

Another investigation which was conducted, is determining which country has the lowest average ranking when you include all players who were top 150 on WAGR and then turned pro. The average ranking has been based on the best ranking each player had on OWGR. Only countries that have four or more players in the database have been included.

Best average ranking: **Denmark** with an average ranking of **598**.

Worst average ranking: **Canada** with an average ranking of **1372**.

Sweden's average ranking is **732**, which is the sixth best average ranking.

4.8 Summary

From the chapter above it appears that Nordic amateur players succeed significantly better with the transition from amateurs to professionals. Compared to the rest of the world, **14%** more Nordic players reach the top 500 on the OWGR in the first year as a professional, and the difference in years two, three and four is at least as great. In my opinion, this is mainly due to the fact that the Nordic players continue to receive a lot of help from the federations even during their time as professionals. In my experience, most other federations around the world do not offer these benefits to their players to the same extent. The fact that Nordic

players receive a longer, high quality education during their amateur career and that they are most likely a bit older when they become professionals in comparison to their international competitors also means that, overall, Nordic players have better conditions to succeed when they take the step to becoming pro.

Previously it was established that the players who reach the top 25 on WAGR have a significantly greater probability of succeeding as a professional compared to the players who become professionals when they are between position 26-150 on WAGR. Furthermore, it was established that a player from the Nordics who has been top 150 on WAGR has just as likely to break into the top 500 on OWGR as a top 25 player from the rest of the world.

On the same theme, the statistics also show that there is a significant difference in having been ranked 1-50 on WAGR compared to 51-150 when you turn professional. I find that this is obviously because players ranked 1-50 are better golfers than the lower ranked players. However, it is probably also due to the fact that the management companies are more interested in the better ranked players, which results in them receiving a variety of better offers in the form of, for example, invitations to professional competitions. These offers in turn allow the higher ranked players to have an easier start to their professional career, by getting more starts on the good professional tours, leading to a greater opportunity to capture more ranking points and prize money.

The statistics also compares amateur players who chose to go to college with players who chose another path in their golf venture. The statistics show that there is no significant difference between the two choices. It is therefore reasonable to conclude that the decision to attend college or not is not a critical decision for the golfer trying to maximize his chances of success as a professional.

5. Conclusion

5.1 What is the probability of success as a professional for the best amateurs?

If a player at some point during his amateur career was top 150 on WAGR and then turned pro, how big is the probability of success as a pro? At the outset, it should be reiterated that a success, in this study, is defined by the player reaching the top 500 on OWGR. After one year as a professional, statistics show that the probability of success is **17%** for all players. After two years, the probability is up to **27%**, a slightly significant increase. After the third year, the probability of success then rises to **36%** and by the fourth and final year to which the statistics extend, the percentage then increases to **45%**. Thus, a higher probability of success is seen with each passing year. In other words, if a player who was in the top 150 on WAGR chooses to make a professional venture the chance of success increases the longer the player has the opportunity to pursue his venture without golf itself generating a sustainable income. Over how many years the chance increases cannot yet be deduced from this study as the data only goes back four years. However, a clear increase is also visible between year three and year four, **36%** to **45%**, which indicates that the probability of success after year four has not yet stagnated.

My personal reflections are therefore the following: If the player has the financial opportunity to give himself at least four years to succeed, then statistically the chance of succeeding is almost as great as not succeeding and he should therefore do this. However, if players only have a time horizon of one or two years, the probability is high that the professional venture will fail and then players should consider whether it is worth the risk of not succeeding.

What has just been described applies generally to all players who were top 150 on WAGR, but the study has shown that the probability of success as a professional differs significantly depending on where the player comes from geographically. What stands out in the statistics is that Nordic players have a significantly higher probability of success than the other geographical areas studied. It should be added here that the only geographical areas studied are the whole world, Europe and the Nordic countries (excl. Iceland). The Nordic players who have been in the top 150 on WAGR have almost twice as high a probability of succeeding as professionals within four years compared to players from the rest of the world. Another interesting conclusion on the same theme is that the study shows that a player from

the Nordics who has been in the top 150 on WAGR is just as likely to succeed as a player from the rest of the world who manages to get into the top 25 on WAGR.

The difference in the probability of success depending on the ranking between 1 and 150 that players had on WAGR is significant. When the statistics are broken down further and divided into intervals of 25 ranking positions on WAGR, two clear divisions among the players emerge. Those who have been 1-50 and the players who have reached a ranking of 51-150. Those who have been between 1-50 have a significantly higher probability of success compared to the players between 51-150. If a player has ever managed to break into the top 50, then according to the statistics, he is almost four times more likely to succeed as a professional than the players who have been between 51-150 on WAGR before turning pro. Of particular note is that a whopping **73%** of all players who were top 25 on WAGR upon turning professional have managed to break into the top 500 on OWGR within four years.

5.2 Proposals for further studies

In conclusion, I would like to point out again that the study is done with a Nordic perspective, but that the study can easily be done for other countries or geographical areas as all the underlying statistics for this are available in the database that I built in connection with the study.

The study has also exclusively focused on male golfers. The same methodology and statistics can of course also be used and produced for female golfers.

In addition to broadening this study to other specific countries or regions and to female golfers, there are several other interesting topics to investigate further. For example, one could investigate what it looks like for all top 500 players on WAGR as well as investigate more deeply how different factors affect a player's probability of success. This includes, for example, more individual factors such as concrete support from federations, choice of competitions played, etc. In addition, it could be thought that the age at which players from different countries choose to become professionals differs and that this possibly affects the probability of success as a professional. In summary, some of the studies that I would personally find most interesting to investigate further are the following:

- To produce the same statistics for individual countries. By doing this survey, you get a very clear picture of how the nations stand against each other. This would be a basis for the various golf federations' opportunity to study how the successful federations work to support players in the transition from amateur to professional.
- Investigating the probability of reaching the top 500 on OWGR when becoming a pro. For instance, through interviews with coaches, management companies, players etc. arriving at a certain probability, for example 60%, where the probability becomes high enough that a professional venture is reasonable. A survey can then be performed that suggest which WAGR ranking there is a 60% probability of succeeding as a professional.
- To continue following the players for longer than four years. In other words, to extend this study.
- To compare the players who were in the top 150 on WAGR, with players who were not in the top 150 but who still chose to turn professional. How many of the lower ranked succeed and how big is the difference? Perhaps one can identify some factor other than the player's ranking on WAGR that is important to his probability of success as a professional?
- To produce statistics for the group of young, talented players who choose to turn professional very early. How well does this group manage to reach the top 500 on OWGR compared to those who choose to turn professional later.
- To investigate how long the players who do not reach the top 500 on OWGR try to reach this level on average before ending their professional venture and if there is a geographical difference in this statistic.